




7th ICEBIT 2023

PROCEEDING:

**7TH INTERNATIONAL
CONFERENCE ON EDUCATION,
BUSINESS, ISLAMIC AND
TECHNOLOGY 2023
(7TH ICEBIT 2023)**



**Proceeding:
7th International Conference on Education, Business, Islamic
and Technology
(7th ICEBIT 2023)**



Preface

It is a distinct privilege and honor to welcome you to the 7th International Conference on Education, Business, Islamic, and Technology, or 7th ICEBIT 2023. This conference, a hallmark of multidisciplinary collaboration, symbolizes the confluence of education, business, Islamic studies, and technology - a testament to the unity of knowledge and its transformative power.

7th ICEBIT 2023 is more than just an event; it is a symphony of intellect and innovation, where pioneers from diverse fields assemble to share their insights, exchange ideas, and explore the dynamic intersections of these critical domains. It is an opportunity to foster understanding, cooperation, and innovation at the intersection of education, business, Islamic studies, and technology.

As we convene at 7th ICEBIT 2023, we recognize the profound transformations taking place in these areas, and we celebrate the collective capacity of our global community to meet these challenges head-on with innovative solutions.

This conference brings together thought leaders, researchers, educators, entrepreneurs, and industry experts from around the world, fostering a space for cross-disciplinary dialogue and the exchange of valuable insights. Our program encompasses keynote speeches, paper presentations, workshops, and interactive discussions, creating an environment for the cross-pollination of ideas and the exploration of new horizons.

In the proceedings of 7th ICEBIT 2023, you will find a treasure trove of knowledge, discoveries, and experiences. These proceedings serve not only as a record of our shared intellectual journey but also as an inspiration to all those dedicated to advancing education, business, Islamic studies, and technology.

We extend our deepest gratitude to the participants, organizers, sponsors, and partners who have contributed to the success of this conference. Your unwavering commitment to the advancement of these critical disciplines is the driving force behind our collective pursuit of a better future.

As we embark on the voyage of 7th ICEBIT 2023, let us remember that our quest for knowledge and innovation is a beacon lighting the path to progress. The connections made, the ideas exchanged, and the solutions discovered here have the potential to shape a more inclusive, prosperous, and ethical world.

Thank you for your presence, your dedication, and your contributions to this exceptional event. Together, we will explore, innovate, and inspire, making an impact that transcends borders and disciplines.

Warm regards,

Muhamad Firdaus Abdull Razab
CEO
Global Academic Excellence (M) Sdn Bhd

**Proceeding:
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(7th ICEBIT 2023)**

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ELECTRIC VEHICLE MARKET PENETRATION IN SOUTHEAST ASIA FROM GOOGLE TREND ANALYSIS

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Abstract: *It is widely expected that electric vehicles will emerge as the dominant force in the automobile industry in the next years. Especially within the ASEAN region, there are two prominent automotive assembly factories, namely Indonesia and Thailand, which are among the largest globally. However, it is worth considering whether this particular firm has the potential to supplant the long-standing fossil-fuel automotive industry, which has maintained its dominance in the market for an extended period of time. The conclusive examination encompasses the utilization of digital analytical methods to determine consumer interest in the ASEAN region. This research presents a comprehensive analysis of tactics aimed at fostering the growth of the electric car industry. These strategies encompass technological advancements that effectively lower the production costs and retail prices of electric vehicles. Additionally, the paper highlights the significance of manufacturers' involvement in the establishment of this industry within the Southeast Asian region.*

Keywords: *Electric Vehicle, Market Penetration, Google Trends*

Introduction

Various governments worldwide, including the Association of Southeast Asian Nations (ASEAN), exhibit a pronounced inclination to facilitate the shift of the automotive industry from gasoline-powered cars and trucks to electric vehicles (EVs). This collective endeavor is driven by the overarching objectives of attaining environmental sustainability and enhancing economic efficiency (Wen et al., 2021). Implementing a transition from conventional automobiles to electric-powered technology represents a proactive policy approach towards fulfilling climate change obligations. This shift not only addresses the evolving environmental concerns but also mitigates pollution levels in urban regions, while ensuring the long-term sustainability of energy resources. A number of Asian nations, such as Thailand, Indonesia, Japan, and Korea, have established car manufacturing industries.

Thailand, as a member of the Association of Southeast Asian Nations (ASEAN), exhibits a commendable level of productivity and places significant emphasis on the establishment of regulatory frameworks aimed at fostering the development of electric vehicles. Notably, the government has implemented a range of attractive incentives to encourage investments in this domain (Frost & Sullivan, 2018). Thailand has already developed an integrated roadmap, outlining its plans to establish a manufacturing capacity of 1,000 electric vehicle buses annually in 2019, alongside the establishment of battery distribution infrastructure. The objective is to achieve the integration of 1.2 million electric vehicles (EVs) for passenger use with a network of national charging stations for electric vehicles across numerous locations by the year 2036.

The automotive sector exerts a substantial influence on global growth in the economy in relation to its economic contribution. According to the International Labor Organization (ILO), the automotive industry's yearly turnover is equivalent to the economic output of the sixth

largest global economy. ASEAN member states, namely Indonesia, Malaysia, Thailand, and the Philippines, have implemented measures such as temporary lockdowns and travel bans in order to mitigate the transmission of the virus. The automotive sector is currently seeing a significant decrease in both demand and investment because to the ongoing epidemic.

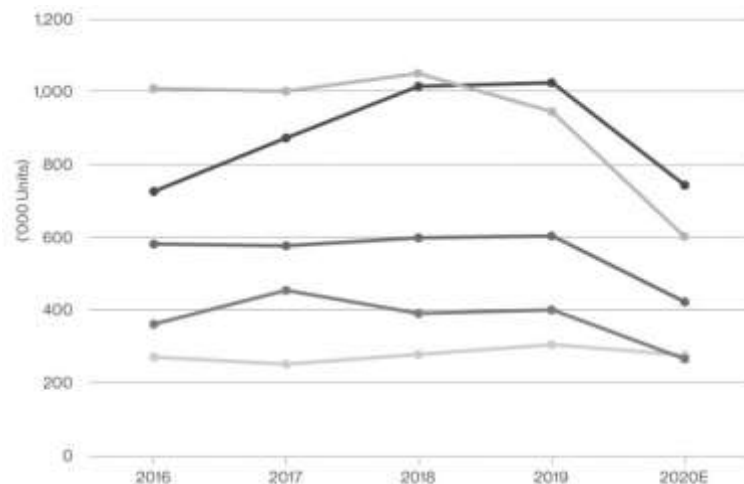


Figure 1. ASEAN Vehicle Sales 2016-2020

Vietnam experienced the most significant decline in growth throughout the previous pandemic, with revenue projected to decrease by approximately 32% to a mere 50,000 units. Similar to Indonesia, the Vietnamese government has implemented an economic stimulus measure aimed at bolstering the automobile industry. This initiative involves the implementation of a policy that reduces the cost of car purchases by 50% until the conclusion of 2020, with the intention of stimulating demand within the sector. The automotive industry in Thailand experienced a significant decline, resulting in the lowest level of car manufacturing observed in the past three decades. The drop in individuals' purchasing power resulted in a significant decrease of 65% in car sales. The export of automobiles experienced a decline of 67.7%.



Figure 2. EV sales' share among cars worldwide

In opposition to the deterioration observed in the traditional car sector. According to the data presented in Figure 2, the sales of electric vehicles in the year 2020 amounted to nearly three million units. China accounted for 40.5% of the worldwide sales. According to Gomolka and Kasprzak (2021), the global electric vehicle (EV) population exceeded 10 million units by the conclusion of 2020. In contrast, conventional automobile sales experienced a decline of 16% on a global scale.

The purpose of this article is to offer an analysis and suggestions on the potential development of the electric vehicle (EV) business in the Southeast Asia region. It also explores the various opportunities that may be leveraged by linked companies to formulate effective strategies. Based on the aforementioned facts, the examination of the potential for growth within the electric vehicle (EV) business across the Southeast Asian market necessitates careful analysis of several factors. These factors extend beyond economic considerations and encompass cultural, policy, and marketing aspects relevant to automotive companies operating in this region.

Literature Review

The expansion of electric vehicles (EVs) in the ASEAN region can be attributed to several factors. One significant factor is the heightened recognition of the effects of climate change and air pollution, which has compelled governments in ASEAN countries to establish aggressive objectives for carbon emission reduction (IEA, 2021). The adoption of electric vehicles (EVs) is considered a potential solution to address environmental issues, given the substantial contribution of transportation to greenhouse gas emissions (EIA, 2021). Furthermore, ongoing advancements in EV technologies, including enhancements in battery lifespan, charging infrastructure, and range for driving, have increased the attractiveness of EVs among consumers (BloombergNEF, 2021). According to Nykvist and Nilsson (2015), advancements in battery chemistry and reductions in battery costs have resulted in increased cost-competitiveness of electric cars (EVs) as compared to conventional automobiles. Consumer preferences, characterized by shifting consumer tastes and heightened environmental consciousness, have been identified as key drivers behind the surge in demand for electric vehicles (EVs) among ASEAN nations (Frost & Sullivan, 2020). Furthermore, the increased accessibility of a diverse selection of electric vehicle (EV) models at varying price ranges has garnered a greater interest among consumers, leading to an expansion of the industry.

In forthcoming years, transportation, Production and and building sectors are anticipated to use renewable energy sources for their respective production operations. As depicted in Figure 3, the utilization of electric power in the domain of transportation is projected to witness a notable surge. However, it is important to note that a substantial proportion of conventional fuel continues to be employed in this context. The acceleration of technology adaption is a primary focus for ASEAN countries.

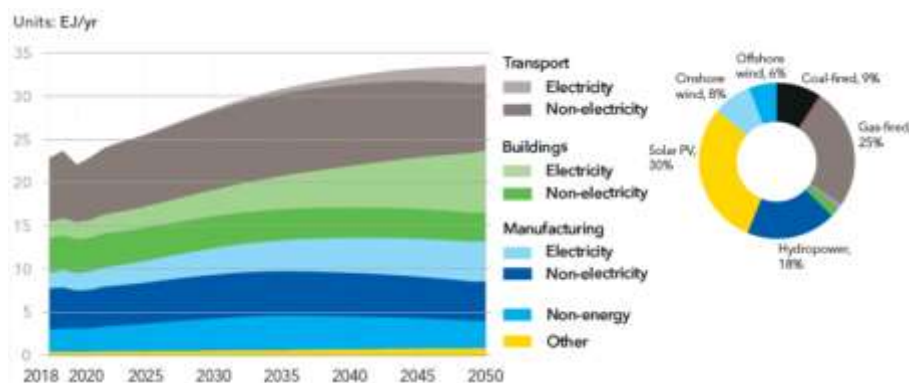


Figure 3. Southeast Asia Energy Consumption (AFEVA, 2020)

Every nation places significant emphasis on the adoption and integration of electric vehicles inside their own territories. Nevertheless, the growth of the sector is equally contingent upon market demand. According to the data presented in Figure 4, it is apparent that the amount contributed of Gross Domestic Product (GDP) within the Association of Southeast Asian Nations (ASEAN) is mostly concentrated among six nations. Indonesia holds the position of having the highest Gross Domestic Product (GDP) among the member countries of the Association of Southeast Asian Nations (ASEAN), accounting for approximately 35% of the overall ASEAN GDP. Following Indonesia, Thailand occupies the second position with a GDP share of around 16%. Subsequently, the Philippines, Malaysia, Singapore, and Vietnam contribute to the ASEAN GDP with shares ranging from 11% to 12%. Nevertheless, when using per capita income as a basis for comparison, the relative volume of GDP in these nations becomes inconsequential. There exists a significant disparity in income levels. Indonesia, being the highest GDP among ASEAN nations, exhibits a per capita income that falls below the average income observed within the ASEAN region. Singapore is positioned as the leading country in ASEAN in terms of per capita income, with a substantial figure of 1322% above the regional average. Following Singapore, Brunei holds the second position with a per capita income of 683%, while Malaysia and Thailand trail behind with figures of 239% and 159% respectively. The concentration of electric vehicle (EV) growth in these four countries can be attributed to several factors.

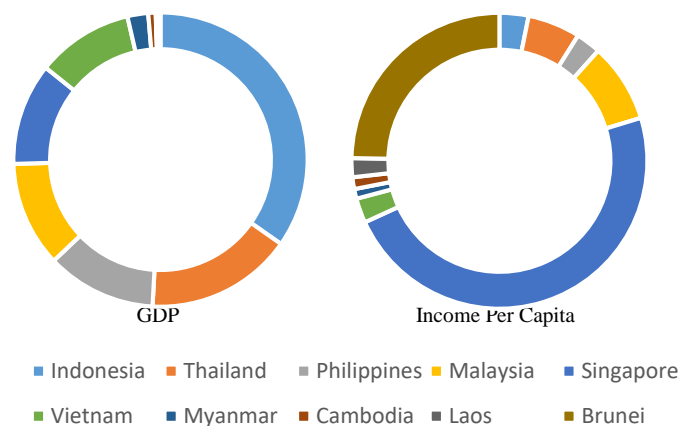


Figure 4. GDP And Income of ASEAN (World Economic Outlook, 2021)

The income earned by each person is expected to have a significant impact on the sales of items, particularly electric vehicles (EVs), due to their relatively high prices in the current market. It is hardly surprising that oil-powered vehicles continue to maintain a significant presence in nations such as Indonesia, Myanmar, and Cambodia. Similar to Indonesia, a country in Southeast Asia that possesses the highest Gross Domestic Product (GDP) in the region, however exhibits an income per capita that is below the average for the area, the government intends to prioritize the enhancement of welfare prior to pursuing the expansion of technological adoption, such as Electric Vehicles (EVs). While it is plausible for absorption to take place within the higher class group, the magnitude of such absorption should be carefully assessed when compared to other ASEAN countries.

Table 1. ASEAN EV's Stock (AFEVA, 2020)

| Country | 2025 | 2030 | 2035 |
|-----------|------|---------|-----------|
| Indonesia | 2200 | | |
| Malaysia | | 100.000 | |
| Thailand | | | 1.200.000 |

Based on the data obtained from multiple sources, as depicted in Table 1. It is projected that by the year 2035, the Association of Southeast Asian Nations (ASEAN) aims to achieve a sales volume of around 1.3 million electric vehicles (EVs) within its market. Malaysia and Thailand are the two Southeast Asian countries that have set ambitious targets for electric vehicle (EV) adoption inside their respective nations. Malaysia has set a goal to achieve the sale of 100,000 electric vehicles (EVs) by the year 2030. In the year 2036, Thailand has set a sales target of 1.2 million electric vehicles (EVs). Both nations possess robust financial foundations, leading the author to express a positive outlook about the attainment of this objective. However, it is important to note that there are additional variables and contributing factors that are not addressed in this essay, which warrant further analysis.

By the year 2040, there is a growing interest in the adoption of electric vehicles, with countries beyond the Association of Southeast Asian Nations (ASEAN), including Sri Lanka, aiming to achieve a complete transition to electric vehicles, reaching a 100% utilization rate. Nevertheless, given the current economic conditions in mid-2022 characterized by elevated inflation rates and challenges in meeting international financial obligations, the author expresses skepticism over the feasibility of this proposition. Pakistan aims to achieve a significant shift towards electric vehicles, with a projected objective of 90% electric vehicle market share by the year 2040. Nevertheless, given the precarious nature of the social, economic, and defense circumstances, attaining these objectives will provide a formidable challenge for the nation.

ASEAN Market Acceptance is Rising

It is anticipated that the revenue of electric cars in the ASEAN region will experience significant growth, reaching a value of USD 3.54 billion by the year 2028. This growth is projected to be achieved through a Compound Annual Growth Rate (CAGR) of 32.73%. The onset of the COVID-19 pandemic resulted in a cessation of manufacturing operations during the initial six months of 2020. However, it is worth noting that the restricted availability of chips in the year 2021 is expected to impede the expansion of the industry, as indicated by a report from Mordor Intelligence in 2023.

A number of nations within the ASEAN area have declared their dedication to the implementation of electric vehicles (EVs) in a portion of their forthcoming automobile sales within the coming years. The governments of ASEAN have implemented many tangible stimuli to promote economic growth, including the provision of incentives for the utilization and acquisition of goods, which can effectively lower costs and enhance consumer buying capacity.

The increasing popularity of electric vehicles in Indonesia can be attributed to the adoption of electric public transportation systems in major cities, as well as the involvement of technology companies like Grab, which recently announced a partnership with PLN to enhance the charging infrastructure for their expanding fleet. Over the forthcoming years, Transjakarta, the public transport operator, has plans to augment its electric bus fleet by a maximum of 10,000

units. The rise in demand within the ASEAN region is expected to be substantial, given that Indonesia is among those nations with the highest economic turnover globally.

Battery makers play a significant role in the rapid technological transition observed in Southeast Asia, as they contribute significantly to the establishment and success of providers of automotive electric vehicles. The presence of a consistent and diverse network of battery producers inside the region can yield numerous favorable outcomes, including diminished expenses and the establishment of a sustainable local supply chain. According to a report by the South China Morning Post in 2023, Eve Energy, a Chinese business, is presently engaged in the construction of a battery for electric cars manufacturing facility in Malaysia with an estimated value of 422 million USD.

Indonesia, possessing substantial nickel reserves, holds a prominent position as a significant hub for electric car battery production within the ASEAN area. The Philippines has been the subject of studies into its nickel reserves, estimated to be approximately 5%, and cobalt reserves, estimated to be approximately 4%. These two metals are considered crucial raw materials in the production of batteries.

One of the key factors contributing to the rapid growth in Southeast Asia is the unwavering dedication of all nations within the region to mitigate fuel pollution. In addition to the aforementioned factors, it is noteworthy that government rules provide substantial assistance, hence facilitating investment within this particular business.

Thailand has implemented a reduction in the income tax rate, namely from 35% to 17%, with the aim of attracting professionals in the relevant field. Additionally, the Thai government has taken further measures by reducing the excise duty on imported electric vehicles to a rate of 2%. Thailand has set a goal to manufacture electric vehicles, constituting 30% of the total yearly vehicle production, by the year 2030. In Malaysia, tax exemptions are granted to individuals who utilize electric vehicles. The government of the Philippines provides tax breaks to electric car companies for a designated duration.

Research Method

This study is grounded in qualitative exploratory research, employing secondary information analysis from multiple automotive businesses in ASEAN, specifically focusing on Thailand and Indonesia. The author categorizes the development of this research into three distinct stages of analysis. The analytical method is grounded in a theoretical framework derived from an extensive review of existing research literature.

In the subsequent phase, the author adopts an economic standpoint to examine the policies, growth, and development obstacles encountered by the electric car sector in the Association of Southeast Asian Nations (ASEAN). The study incorporates quantitative secondary data, along with the use of policy analysis, market growth, and theory of strategic management frameworks. To enhance the precision of the study, the author employs many methodologies and frameworks within the field of management.

Next, a comprehensive examination of market indicators derived from prior processing will be conducted, taking into account the strategic goals of ASEAN member nations in relation to the

growth of the electric vehicle sector and the possible competitive advantages that can be suggested.

Analysis and Findings

The traditional automotive sector has exhibited a significant decline in growth subsequent to the most recent pandemic. According to the data presented in Figure 5, the conventional automobile sector had its highest point in 2019, prior to the global outbreak of the Covid-19 pandemic.

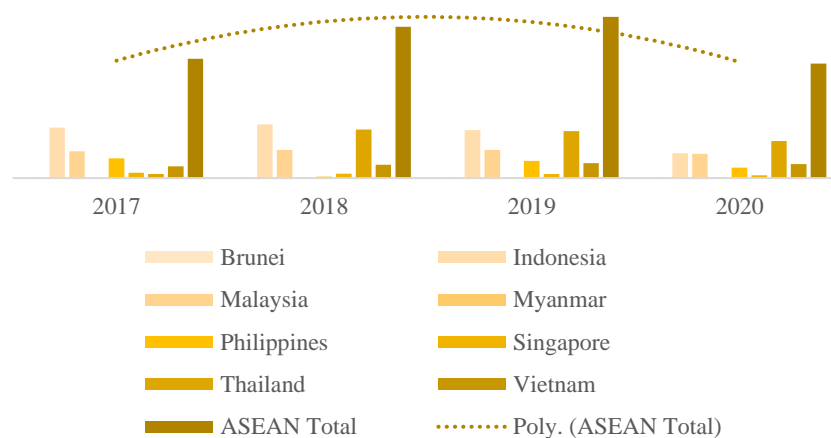


Figure 5. Automotive Market Sales in ASEAN

The analysis of the polynomial trend line reveals a notable recurring decrease in the aggregate data. The market had a fall in 2017, followed by a subsequent rise from 2018 to 2019. However, in 2020, the sector failed to achieve positive growth once more. This outcome was facilitated by two primary factors, specifically the diminished domestic and regional demand, as well as the constrained production and distribution of raw materials worldwide during that period. A notable challenge in the realm of supply chain management, persisting through the third quarter of 2022, is to the arduous task of procuring semiconductor chips. The automobile sector in the ASEAN area has a significant reliance on four key countries, namely Indonesia, Thailand, Malaysia, and the Philippines. Indonesia and Thailand collectively account for almost 50% of automobile sales within the ASEAN region. It is hardly unexpected that these two countries house the largest auto manufacturing sites in Southeast Asia. It is more intriguing to be further explored. Did the reduction occur exclusively due to the market's reluctance to make purchases?

The sales of electric vehicles have experienced a notable increase.

In stark contrast to the downward trend observed in the sales of traditional automobiles, electric vehicles (EVs) witnessed a notable surge in sales throughout the period spanning from 2019 to 2020, as visually depicted in Figure 6. In the year 2020, there was a notable surge of around 170% in electric vehicle (EV) sales, although the gross domestic product (GDP) of the Association of Southeast Asian Nations (ASEAN) had a decline of 4.7%. Additionally, sales of conventional automobiles witnessed a significant reduction of 29% during the same year.

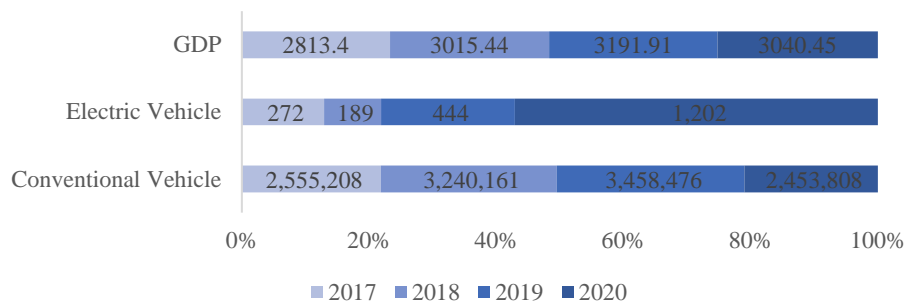


Figure 6. EV and Conventional Sales in ASEAN

Despite significant differences in sales volume, the electric vehicle (EV) market can be likened to the biblical tale of David and Goliath, with EVs representing David and the traditional car industry symbolizing Goliath. The traditional car industry has long had a dominant position, akin to Goliath, while the EV sector, like David, is striving to challenge and potentially overthrow this established order. The measurement of percentage growth and fall serves as a significant signal for assessing the overall market shrinkage within the Southeast Asia area.

Based on the available statistics, it can be inferred that fluctuations in GDP growth and fall are likely to exert a comparable influence on the sales of conventional automobiles. However, it is important to note that this impact may differ significantly when considering the sales of electric cars. Based on the provided information, it can be inferred that there is an observable increase in consumer demand for electric vehicles in Southeast Asia. This demand is primarily driven by individuals who possess significant financial resources and have not experienced adverse economic effects during the recent epidemic.

Digital analytics has been identified as a viable method for evaluating customer interest within a certain market group (Barus, 2022). In this analysis, the author examines the search phrases pertaining to "Electric Vehicle" on Google within the three primary Southeast Asian nations that have embraced electric car technology, specifically Thailand, Malaysia, and Indonesia. The data that has been gathered is of an analytical nature, spanning the years 2017 through 2021.

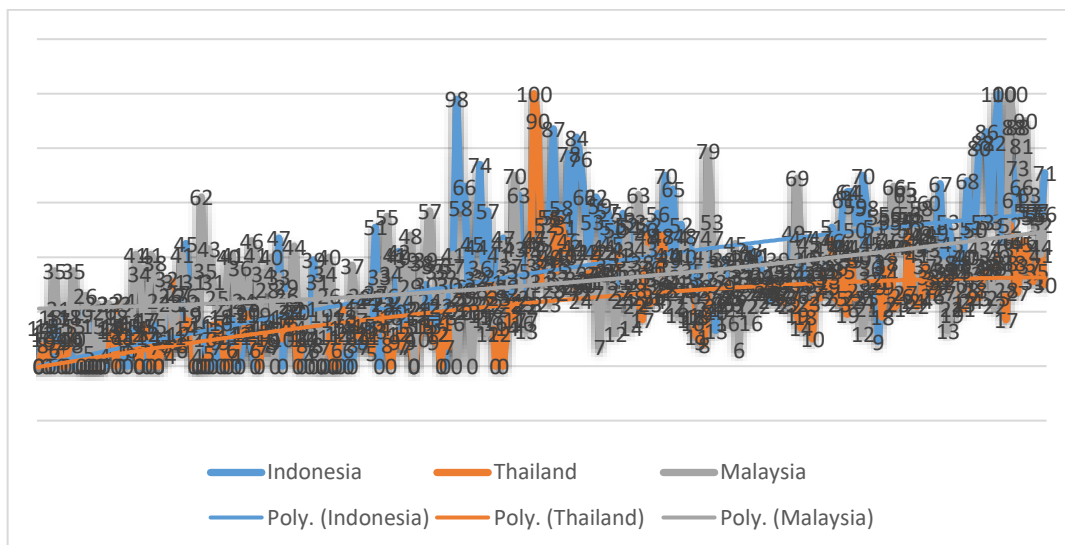


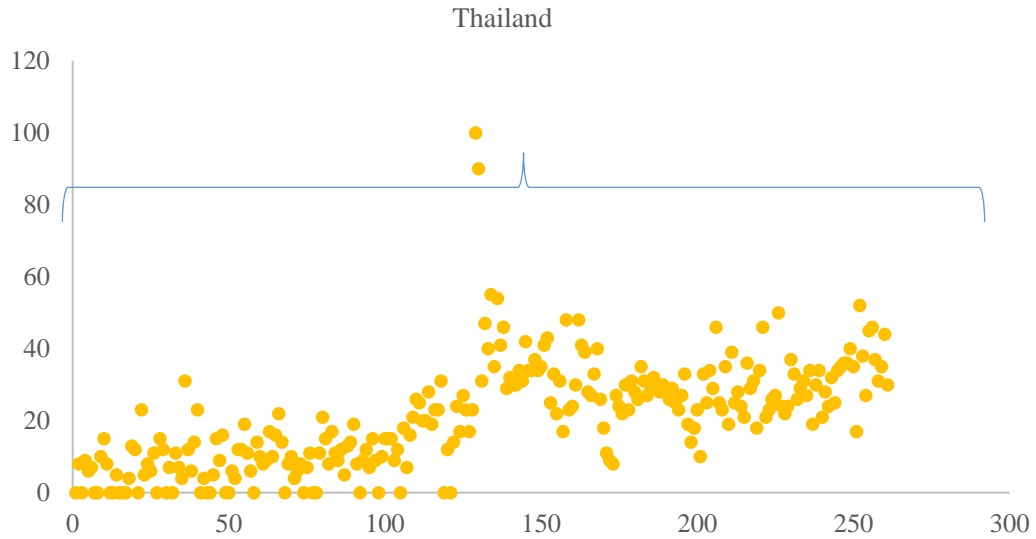
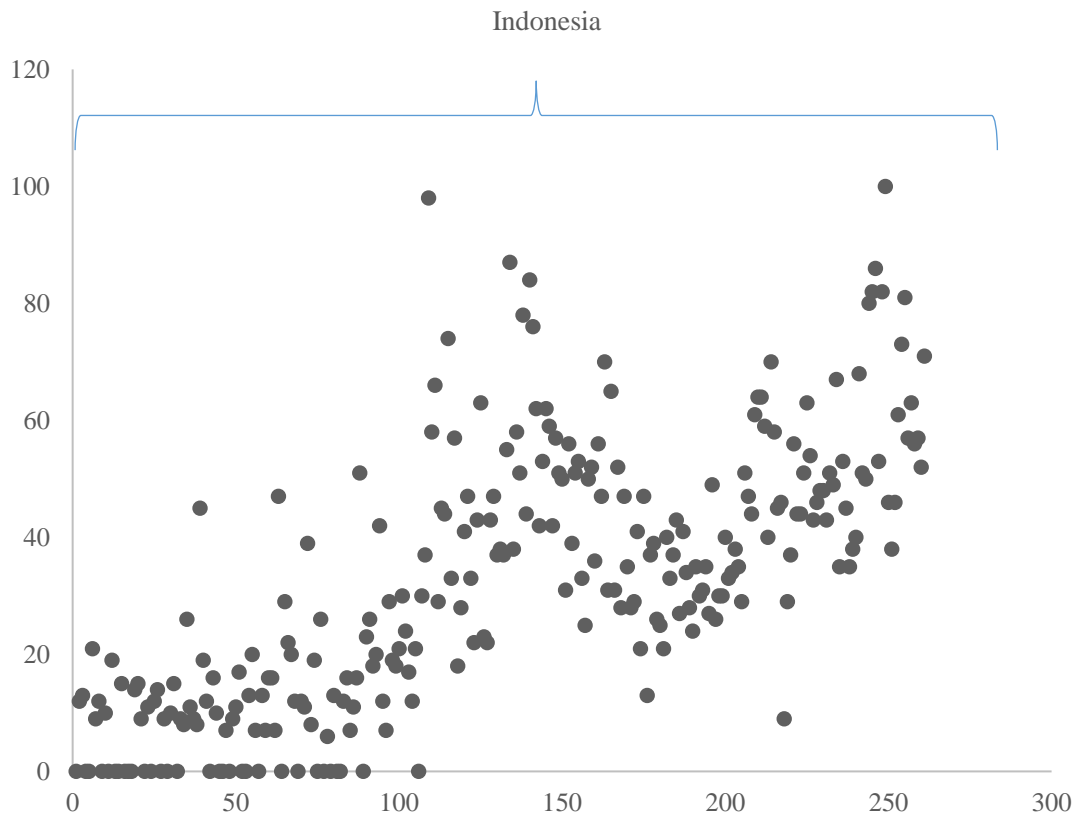
Figure 7. Digital Search Trend of Electric Vehicle

The acquired analytical data is subsequently subjected to cross-comparison, taking into account both the identical time period and phrases. In order to enhance the visibility of overall indicators among the three nations, the authors employ a trend polynomial methodology. This phenomenon is observable in Figure 7. The three trend lines are observable in the blue line, which signifies the fluctuation of interest in Indonesia, followed by the orange line denoting Thailand, and finally the gray line representing Malaysia.

Trend lines in quantitative data analysis facilitate the empirical observation of market movements and enable the prediction of potential levels that may serve as new reference points (Barus, 2021). Based on the analysis of the three trend lines, it is evident that the level of interest in electric vehicles has witnessed the most substantial surge in Indonesia, with Malaysia ranking second in terms of growth. In terms of purchasing behavior, Indonesia exhibits the lowest levels of consumption when contrasted with the two aforementioned countries. In contrast, Thailand, as the leading motor vehicle producer in Southeast Asia, is projected to witness a decrease in the demand for electric vehicles in the year 2021.

When observed in conjunction with the oscillations depicted in Figure 7, it becomes apparent that the range of the three countries is expanding and intensifying. This observation suggests a growing trend in the expansion of market understanding and curiosity. These three countries have demonstrated the ability to mirror the evolving consumer preferences throughout the ASEAN region, since they collectively account for over 50% of the automotive market in Southeast Asia.

Moreover, the author endeavors to examine the level of interest in electric vehicles (EVs) across three nations by analyzing the range of discussions taking place in digital media, as depicted in Figure 8. This spectrum allows for the observation of the degree and volume of collective market interest at a given moment. This study involves the transformation of pre-existing analytical quantitative information into a scatter plot, which serves to visually depict the relative frequency of occurrences in a more accessible manner.



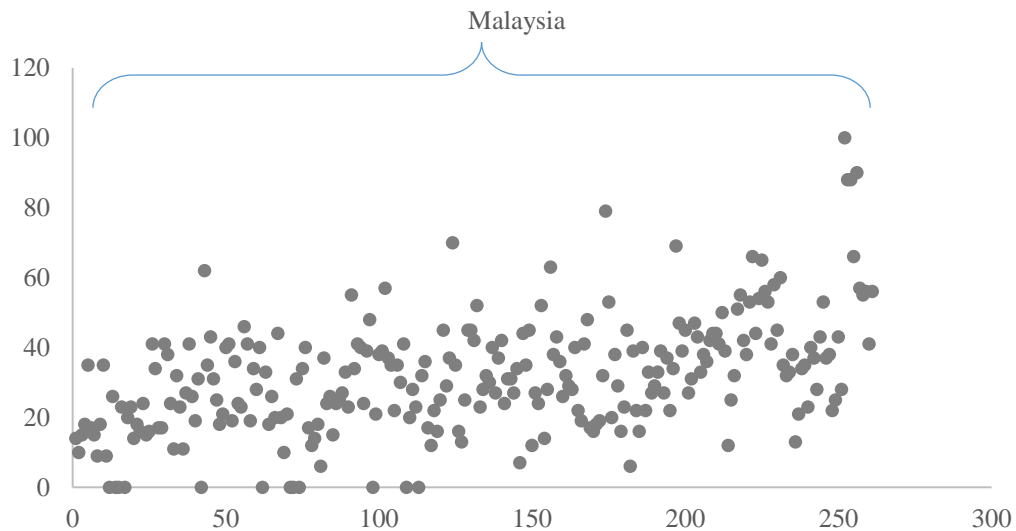


Figure 8. EV Interest Spectrum

Indonesia exhibits a discernible trend of growing interest that is characterized by its dynamic and impulsive nature. The broadness of the peak and lowest points that are anticipated in the coming years provides evidence for this observation. This was feasible because of the impact of the press and government policies that were expanding at that time, in addition to the news while the President of the Republic of Indonesia, Joko Widodo who traveled to the Tesla manufacturing facility in America met Elon Musk, this event occurred in 2022 and was sufficiently large to give impulses to this interest on the side. The consumers in Indonesia.

The potential for development is substantial, yet, there is a likelihood of the emergence of an oligopolistic market structure.

The ASEAN market is anticipated to be highly sought after by a majority of manufacturers of electric cars in the next years. According to a news article, Tesla has reached an agreement with Indonesia to make a substantial investment in the establishment of a car battery manufacturing facility. In addition, it is noteworthy that several traditional manufacturers, including Hyundai, Toyota, and Suzuki, are currently transitioning towards the production of hybrid and fully electric vehicles.

The author employs a five forces framework to analyze the forthcoming industrial competition within the ASEAN region. In relation to the negotiating power of consumers, it is imperative for ASEAN nations to exercise patience in disseminating information regarding the advantages associated with electric automobiles. Furthermore, the affordability of electric vehicles remains a significant factor influencing this phenomenon. In order to enhance the bargaining power of consumers, they may opt to transition to other products, like fossil fuel automobiles, which remain prevalent and widely available within this particular geographic area.

The assurance of battery supply has emerged as a significant problem for electric vehicle manufacturers, particularly when considering the supply side of raw materials in this industry. It might be argued that nations with substantial quantities of cobalt and nickel, which serve as the primary constituents of electric vehicle batteries, are likely to wield significant leverage within the electric car sector. The industry's entry barrier is anticipated to be substantial due

to the necessity of a significant financial commitment, as well as the need for political, legal, and network backing from relevant nations.

New manufacturers can encounter significant challenges while attempting to establish themselves in the industry. Hence, it can be inferred that the forthcoming market structure is likely to exhibit characteristics of an oligopoly. The forthcoming sector is anticipated to be dominated by established manufacturers with extensive knowledge and substantial financial resources. For instance, companies such as Toyota, Tesla, Nissan, Honda, and various others.

The role of government policy will be significant.

The growth of the electric vehicle sector is anticipated to be contingent upon governmental support. The forms of support being discussed encompass fiscal policy, licensing, and promotional efforts. Several ASEAN member nations have enacted various government programs that demonstrate significant developments.

Government policies are subject to periodic changes, particularly in instances where there is a transition of political power. In order to facilitate the rapid growth of the electric vehicle (EV) industry, it is imperative for nations to establish enduring and interdepartmental agreements, thereby guaranteeing the realization of such expansion.

Conclusions

While the conventional car sector currently maintains a significant market share, it is plausible that electric vehicles could emerge as the dominant force in the future, provided that governmental bodies and relevant corporations consider the following factors.

In order to foster innovation, it is imperative to advance the technological capabilities that facilitate the production of cost-effective and accessible electric car merchandise. The price factor holds significant importance for consumers within the ASEAN region. A reduction in pricing would facilitate broader market penetration. Indonesia, as an illustrative case, is a nation that takes into account the presence of dealerships in various places as a factor in their automobile acquisition decisions.

It is imperative for the government to enhance the impetus of customer interest in the prospective acquisition of electric vehicles. Tax reduction initiatives have demonstrated their efficacy in Thailand and Indonesia. Additional non-fiscal strategies will be required to effectively promote market demand. The establishment of alliances with producers will also be of utmost importance. In addition to the imperative of economic stability, the domains of politics and security are integral components of governance across all nations. In order to enhance industrial efficiency, it is imperative to acknowledge the significance of government involvement in providing production and investment permits for firms seeking to establish their presence within the country. In order to enhance quality and reduce prices, it is vital to augment the number of participants inside the business.

The market potential within the Association of Southeast Asian Nations (ASEAN) region is substantial, with a notable surge in consumer enthusiasm towards electric vehicles. In the context of Southeast Asia, particularly among the nations of Indonesia, Thailand, and Malaysia. This phenomenon is seen in the considerable surge in electric car sales throughout the year 2020, along with the wide range of interest it has generated. The electric car industry's growth

is contingent upon collaboration among manufacturers, as individual efforts to dominate the market are insufficient. In order to enhance the efficiency and quality of the supply chain and knowledge, it is imperative for individuals to engage in collaborative efforts.

The author posits how the electric vehicle (EV) industry is poised to gain significant traction within the next decade. This assertion is substantiated by past sales statistics and the escalating level of consumer interest in the ASEAN region, with the steadfast commitments made by governments in each respective country. The future of contemporary public transportation lies in the adoption of Electric Vehicles (EVs), which prioritize both efficiency and environmental preservation.

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ISLAMIC HUMAN RESOURCE MANAGEMENT STRATEGIC PLANNING, PRACTICES, COMMITMENT, AND ORGANIZATIONAL PERFORMANCE OF BANGSAMORO REGION

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Abstract: *The study's primary goal was to develop a causal model that best links the employees' views on Islamic HRM principles, practices, and work engagement, as well as to determine which variables influenced organizational performance. Researcher-made survey instruments were used to implement descriptive-correlational and causal-comparative study designs. It was done in the Bangsamoro region and included 537 regular employees from different ministries using stratified random sampling. To interpret and analyze the data, the mean and standard deviation, Pearson Product-Moment Correlation, multiple regressions, and the structural modeling equation were employed. The study results show that the respondents in BARMM have a high level of agreement in their assessment of Islamic human resource management practices. The findings emphasize the considerable impact of Islamic principles and values on the implementing of human resource management (HRM) strategies. Moreover, the research reveals a positive perception among participants in the Bangsamoro Autonomous Region in Muslim Mindanao (BARMM) regarding the efficacy of strategic planning and Islamic HRM practices concerning HRM policies, workplace dynamics and work environment, and leadership qualities. However, there are areas for improvement, particularly regarding HRM policies, which need further clarification and consistency. A strong positive relationship between work engagement, Islamic human resource management practices, and strategic planning with organizational performance in BARMM was also noted. This study suggests that employee engagement is a key driver of organizational productivity, and aligning HRM policies with Islamic values and principles can enhance organizational productivity. The study also highlights the potential social benefits of implementing Islamic human resource practices in organizations and society.*

Keywords: *Structural Model on Organizational Performance, Strategic Planning, Islamic Principles, Work Engagement, Human Resource Management, Bangsamoro Autonomous Region in Muslim Mindanao*

Introduction

In 2019, the creation of the Bangsamoro Autonomous Region in Muslim Mindanao (BARMM) under Republic Act 11054 or the Bangsamoro Organic Law has been a milestone between the Philippine Government and the Moro Islamic Liberation Front (MILF) in seeking lasting peace in Mindanao. Through BARMM, the aspiration of the Moro people has been legitimized and given a more relevant means to become relevant in terms of the development spectrum (Bangsamoro Government, 2019).

Additionally, with the creation of BARMM in 2019, more or less 4,000 officials and employees were employed in the different ministries, many of whom are new in the government, hence the need to capacitate the human resource so that they will be fully developed and be part of a competent and professional workforce” (Bangsamoro Government, 2022). The creation of BARMM has led to significant improvements in Philippine politics and governance by focusing on developing human resources at the local level, however, there are still areas where the government needs to improve its efforts to build capacity in the region, specifically, a more organized and long-term strategy for human resource development is necessary.

According to the Common Framework of the Human Resource Development Plan in BARMM, it is emphasized that each individual serving as an official or employee within the Bangsamoro Autonomous Region in Muslim Mindanao is considered a valuable asset or resource. Each individual should be nurtured, enhanced, and effectively utilized to contribute to the provision of public services, all while being guided by the principles of moral governance.

Researchers have shown considerable interest in the influence of Islamic values on management in the past 20 years, as indicated by Toumi et al. (2023). However, limited research has been conducted on the influence of these values on human resources management. Harrison (2011) reports that Islam has a distinct capability to impact the culture of its adherents. Islam is not just a religion, it encompasses an entire way of life, including business and economics. With a population of 1.8 billion people in 2015, Muslims constitute the majority in 57 countries worldwide (Esposito, 2011).

Abbazi and Zarqan (2019) suggest that incorporating Islamic principles in human resource management (HRM) can be effective in addressing the challenges faced by institutions and organizations. They propose that these principles can help resolve issues related to training, knowledge, leadership, attitudes, and professional skills required for productive careers and a functional role in society. Nasution (2019) conducted a study on 34 Indonesian organizations to explore the impact of incorporating Islamic values and fostering work discipline on the performance of Muslim employees. The results indicated a significant positive correlation between these practices and employee performance.

Similarly, Saban et al. (2020) examined the relationship between Islamic work ethics, skills, compensation, work culture, and job satisfaction among hotel employees in Indonesia. By surveying 345 employees from 20 hotels, the researchers found that Islamic ethical values exerted a positive influence on employee satisfaction. While Khalid et al. (2020) investigated the implementation of Islamic HRM practices in Pakistani organizations and observed that while these practices are crucial, they are rarely formalized. Exploring the functions of Islamic HRM, Chowdhury et al. (2019) identified eight core areas, including HR planning, recruitment, selection, orientation, performance appraisal, training and development, compensation and benefits, and career development. The authors proposed that adhering to Islamic principles in these functions can ensure the availability of a capable, dedicated, sincere, and ethical workforce committed to maximizing stakeholder interests.

The literature suggests that incorporating Islamic principles in human resource management can help address challenges faced by institutions and organizations. However still, there is a gap in understanding the influence of Islamic values on human resource management. For BARMM, which adheres to Islamic principles and values in its governance, incorporating Islamic HRM practices can prove helpful in dealing with the challenges faced by national

institutions, such as inefficiency, misuse of authority, and social divides. The lessons learned from the failed experiment of the Autonomous Region in Muslim Mindanao (ARMM) highlight the need for BARMM to solidify its foundation in human resource management. Furthermore, BARMM, being a newly created organization, must focus on strengthening its HRM practices.

Literature Review

The model used to link HRM with organizational performance is derived from Paauwe & Richardson's (1997) work, which posits that HRM outcomes mediate between HRM activities and organizational performance. Boselie et al. (2005) have blended the theories of contingency, resource-based view, and AMO to create an overarching theory of HRM, upon which the proposed model is based. The contingency theory suggests that external factors can influence the relationship between HRM policies and organizational performance. At the same time, the resource-based view contends that HRM policies can directly impact employee characteristics such as skills, attitudes, and behavior, resulting in improved organizational performance (Boxall & Steeneveld, 1999).

The AMO (Ability-Motivation-Opportunity) perspective, as discussed by Purcell et al. (2003) and Lepak et al. (2006), suggests that an organization's HRM system can influence employees' ability to perform, motivation to perform, and opportunity to perform, which can subsequently impact their skills, attitudes, and behavior. In line with these theories, this study hypothesizes that Islamic HRM policies may influence organizational performance indirectly through Islamic HRM outcomes. The philosophy of the Islamic perspective is that HRM policies encompass mediating changes in employees' abilities, motivations, and opportunities to participate that positively influence organizational performance (Boselie et al., 2005; Purcell & Hutchinson, 2007).

Furthermore, it is suggested that employee retention and presence can have a positive impact on organizational effectiveness (Boselie & Paauwe, 2001). Thus, the study hypothesized that the enhancement of Islamic HRM outcomes acts as a mediator in the association between Islamic HRM policies, strategic planning, work engagement, and organizational performance. The direct effect of Islamic HRM policies, strategic planning, and commitment on organizational performance may also be present, implying a positive relationship between these variables (Katou & Budhwar, 2007).

Finally, it is essential to note that organizational level controls, such as size, capital intensity, industry, and union intensity, may influence the adoption of Islamic principles and values in HRM policies, and may impact HRM outputs and organizational performance (Paauwe & Richardson, 1997; Huselid, 1995). Therefore, the study suggests that the whole process of Islamic HRM may be moderated by organizational level controls.

In conclusion, this study asserts that Islamic HRM (through strategic planning and Islamic HRM practices) plays a significant role in achieving meaningful and lasting commitment, alongside the goal of improving organizational performance in the Bangsamoro region. The theories of contingency, resource-based view, and AMO support the study's variables by suggesting that HRM policies can directly impact employee attributes, which subsequently translate into improved organizational performance, and that external factors and

organizational level controls may influence the relationship between HRM policies and organizational performance.

Objectives

The general purpose of this study is to develop a structural model of the significant influence of Islamic principles and values on Human resource management, strategic planning, and practices on the organizational performance of Bangsamoro region from 2019-2022. Specifically, this study sought to:

(1) describe the level of assessment of the participants on the Islamic human resource management in BARMM in terms of: intention (Nya); forever mindful of the Almighty God (Taqwa); kindness and care while feeling the presence of God (Ihsan); justice (Adl); trust (Amana); truthfulness (Sidq); conscientious of self-improvement (Itqan); sincerity and keeping promises (Ikhlas); consultation (Shura); and patience (Sabar); (2) measure the level of assessment of the strategic planning and Islamic HRM practices in BARMM; (3) determine the participants' level of assessment of work engagement in BARMM; (4) ascertain the participants' level of assessment of the organizational performance in BARMM; (5) Correlate organizational performance and Islamic principles and values in Human Resource Management, Strategic Planning, IHRM practices (Islamic recruitment and selection, Islamic training, and Islamic compensation), and work engagement; (6) identify which variables have a significant influence on organizational performance; (7) develop a model that best explain organizational performance in Islamic Human Resource Management.

Methodology

Research Design

This study used descriptive correlation and causal-comparative research design. The data gathered was analyzed quantitatively. The approach used was appropriate for the goals of the research since it sought to offer a thorough description and assessment of the relevant components. In particular, the technique enabled the examination of the respondents' views on Islamic principles and values in HRM, strategic planning, and IHRM practices, with employee engagement serving as a moderating variable. Multiple regression analysis was used in determining variables that predict employee performance. The research tool that is most frequently utilized is regression analysis. It enables researchers to examine connections between independent and dependent variables in their most basic form. Furthermore, this study developed a casual model that best links the employees' views on Islamic human resource management principles, practices, and work engagement toward organizational performance. Johnson and Wichern (2014) explain that the process of causal modeling encourages researchers to consider the possibility of other relationships between concepts that were not initially considered. Causal modeling represents multiple relationships in which the causal connection between several variables is examined simultaneously.

Research Setting

This study was conducted in the Bangsamoro Region in Muslim Mindanao (BARMM). Bangsamoro, officially the Bangsamoro Autonomous Region in Muslim Mindanao (BARMM), is an autonomous region located in the Southern Philippines consisting of the

provinces of Basilan, Lanao del Sur, Maguindanao, Sulu and Tawi-Tawi with Cotabato as its regional center along with the 63 barangays in the Cotabato area.

The Bangsamoro replaced ARMM as the only Muslim-majority autonomous region in the Philippines. Currently in transition until 2022, the Bangsamoro government has been considered a testing ground for the broader debate on constitutional reform and federalism in the Philippines.

During the formal handover of power from the previous Autonomous Region in Muslim Mindanao to the following Bangsamoro regional government in February 2019, the current BARMM Chief Minister, Murad Ebrahim, appointed his first cabinet members. The Bangsamoro Organic Law mandates that the Cabinet include at least one female member.

Participants and Sampling Procedure

The participants of this study are regular employees of the different ministries of BARMM, regardless of their gender, ethnic affiliation, marital status, rank or position, and salary, as long as they are regular employees who serve for at least two to three years and above in the ministry. Stratified random sampling was employed in determining the participants from different ministries of BARMM. This sampling method was essential for this study as it helped increase the results' validity, and reliability.

The first stage in achieving the target number of participants was determining which ministries were affiliated with BARMM. As a proportion of the overall population, BARMM has 9,195 people working for it. Ministry of Agriculture, Fisheries, and Agrarian Reform (MAFAR) has 485 employees, the Ministry of Basic, Higher, and Technical Education (MBHTE) has 876 employees, the Ministry of Environment, the Natural Resources, and Energy (MENRE) has 654 employees, the Ministry of Finance and Budget and Management (MFBM) has 655 employees, the Ministry of Health (MOH) has 964 employees, the Ministry of Human Settlements and Development (MHSD) has 546 employees, the Ministry of Indigenous People's Affairs (MIPA) has 186, the Ministry of Labor and Employment (MOLE) has 623, the Ministry of Interior and Local Government (MILG) has 747, the Ministry of Public Order and Safety (MPOS) has 235, the Ministry of Public Works (MPW) has 946, the Ministry of Science and Technology (MOST) has 546, the Ministry of Social Services and Development (MSSD) has 766, the Ministry of Trade, Investment and Tourism (MTIT) has 421, and lastly the Ministry of Transportation and Communication (MOTC) has 545. Participants in this research were restricted to only being full-time, regular workers who had at least two (2) to three (3) years of service under their belts.

The second step, from the total population, a sample size of 383 was obtained using Slovin's formula. By making use of the formula, a desired degree of accuracy was done by the researcher to take a sample from the population. Slovin's formula is used to calculate an appropriate sample size from the population since it's impossible to survey every member of the population because of money and time. It is also used if the researchers have no idea about the population's behavior. If the population to be sampled has evident subgroups, Slovin's formula could be applied to each group instead of the whole group. Considering this study, if there are 9,195 employees in the 15 ministries of BARMM, a single survey may not provide the data required, whereas sampling each group would provide more accurate results (Ellen, 2020). However, due to the availability of time and the high interest of the employees to be part of this study,

the principal investigator was able to retrieve five hundred thirty-seven (537) questionnaires. In addition, the respondents who participated in the pilot testing of the study were excluded from the final conduct of the data-gathering.

Research Instruments

The responses from the survey questionnaires served as the sole data of the study. This was to assess the level of awareness of the Islamic principles applied in human resource management, strategic planning, and IHRM practices, work engagement, and employee organizational performance. Each of the variables has a distinct instrument. This research utilized the survey questionnaire as the primary tool in gathering the needed data and information. Using a 5-point Likert scale, a 95-item survey questionnaire was answered by the participants by rating the degree of agreement or disagreement with the statement.

This self-made questionnaire is consisting of four (4) parts, as follows: Part 1- Level of Assessment on Respondents' Human Resource Management in terms of Islamic Principles with fifty (50) item statements on the Islamic Principles observed in Islamic Human resource management; Part II- Level of Assessment on Respondents' Strategic Planning and Islamic HRM Practices with five (5) items on strategic planning and ten (10) items on Islamic practices; Part III- Level of Assessment on Respondents' Work Engagement with five (5) items on vigor, five (5) items on the dedication and five (5) items on absorption; and lastly Part IV- Level of Assessment on Respondents' organizational performance with fifteen (15) items on organizational commitment and productivity.

Data Gathering Procedure

Ethical manners and standards are highly considered in the conduct of research. To guarantee an orderly and systematic flow of data collection, the researchers were given approval from the Dean of the School of Business, Management and Accountancy to the Chief Minister of BARMM and the ministers of the fifteen (15) ministries of BARMM to allow the researcher to administer the survey questionnaire.

It should be noted that the principal investigator has no conflict of interest in any form with a sponsor, co-investigators, or the study site. In conducting the study, the researcher observed the ethical guidelines set by the University Ethics Review Committee.

When approval and permission were granted, gathering of data took place immediately.

Before distributing the questionnaire, the researcher gave a short orientation in which they explained the study's goals, stressed the need for the participants' complete involvement, and asked for their honest responses. To ensure maximum retrieval, the researcher personally distributed the questionnaire to the respondents with the help of other office staff, which made the data gathering fast and easier.

The investigator placed emphasis on the participants' voluntary participation, and that they may withdraw from taking part in the study without any costs. It is completely up to the individual whether or not to participate in the study. Those who chose to participate were

informed of their rights to privacy along with an informed consent form to ensure confidentiality and complete anonymity.

There are no physical risks involved as they only need to provide their answers in the survey questionnaire. Once finished, the questionnaires were retrieved, and the participants received reimbursement equivalent to their involvement in the study. They were also reminded that all data collected was treated with absolute confidentiality and only used for academic purposes. Though it may not benefit the participants directly, the study certainly benefits the institution in assessing employees and leaders to encourage development programs. It may also form the basis to embed in their respective units/departments/ministries appropriate interventions such as spiritual constructs to serve the Bangsamoro community better and serve as evidence to support the significance of practicing Islamic HRM and strategic planning to boost commitment and organizational performance among personnel, workers, and employees. This is important for the officials to be guided by Islamic values and principles for the delivery of excellent services to the stakeholders and the Bangsamoro community.

When all accomplished questionnaires were retrieved, data were collected, tallied, and subjected to the appropriate statistical treatment for analysis and interpretation.

Validity and Reliability of the Instruments

The content validity of the survey questionnaire was carried out by three (3) chosen experts in constructing survey tools of research, and higher authorities in the field of education for analysis, recommendations, and enhancement of the questionnaire. The validity of a questionnaire can be established using a panel of experts who explore theoretical constructs. Likewise, an analysis using a Cronbach Alpha method ranging from 0 to 1.0 was applied to review the internal consistency where 0 represents an unreliable questionnaire while a reliable questionnaire has a range of 1. A reliability coefficient (alpha) of 0.70 or higher is considered acceptable reliability in SPSS (Statistical Package for Social Science, by HBM Incorporated).

The reliability of the survey questionnaire was pilot tested using thirty (30) selected participants who were not included as sample participants in the study. After the pilot testing, the results were sent to the Research Office for reliability testing using Cronbach's Alpha. The first variable – Islamic Principles and Values in Human Resource Management, has a Cronbach's alpha of 0.972. The second variable - Strategic Planning and Islamic Human Resource Practices, has a Cronbach's alpha of 0.965. The third variable- Work Engagement, has a Cronbach's alpha of 0.953. And the fourth variable- Organizational Performance, has a Cronbach's alpha of 0.956. Therefore, the reliability test interprets all variables reliable.

Results and Discussion

Based on the results, there was a general agreement among respondents on the quality of BARMM's Islamic human resource management practices when asked about the issue of how well such procedures measure up to participants' ideals. The research evaluated the degree of intent, Taqwa, Ihsan, Adl, trust, honesty, Itqan, consultation, and patience in Islamic human resource management practices in the Bangsamoro Autonomous Region in Muslim Mindanao (BARMM). The results showed that respondents were generally agreed with BARMM's Islamic HRM practices, suggesting that HRM is profoundly influenced by Islamic principles and values. Respondents agreed that encouraging Islamic values like Taqwa, Ihsan, Adl, trust,

honesty, Itqan, consultation, and patience would help foster an environment where employees would act ethically and take responsibility for their actions in the community.

For the participants' level of assessment of the strategic planning and Islamic HRM practices in BARMM in terms of HRM policies (Islamic recruitment and selection, Islamic training, and Islamic compensation), workplace and environment; and leadership, results show that the overall mean score for the 15 items is 4.0279, indicating that the respondents often observed the strategic planning and Islamic HRM practices in BARMM related to HRM policies, workplace and environment, and leadership. However, there is variability in the respondents' level of agreement, as shown by the standard deviation for each item. The study found that employees in BARMM have a positive perception of the Islamic HRM policies, particularly the fair and reasonable compensation policy. However, some areas need improvement or further clarification. The study highlights the importance of adopting Islamic HRM practices to enhance employee trust and engagement. The participants also have a positive perception of the workplace and environment in BARMM, particularly in terms of effective communication, organization of work, and encouragement of teamwork. However, there is a need to create a more consistent and clear organizational culture to improve employee motivation and engagement. The study also found that the participants have a positive perception of the leadership in BARMM, particularly regarding the systems and processes in place to identify and develop the next generation of leaders and ensure leadership transitions. However, there is a need to clarify HRM policies and provide consistent and effective leadership development and transition processes. Overall, the study's findings suggest that there is a positive perception of the strategic planning and Islamic HRM practices in BARMM. Still, there are areas for improvement in terms of HRM policies, workplace and environment, and leadership.

Regarding the Participants' level of assessment of work engagement in BARMM in terms of vigor, dedication, and absorption. The overall mean score of 4.031913 indicates that the respondents often practiced work engagement related to these dimensions in BARMM. Statement 11 received the highest mean score of 4.4674, indicating that respondents often practice maintaining a harmonious relationship and diffusing conflicts in the workplace. The results also suggest that the participants have a positive level of work engagement in maintaining a clean and organized workplace, feeling safe, and feeling connected to the organization. The findings suggest that workplace factors such as maintaining a harmonious relationship and a clean and organized workplace can contribute to increased work engagement among employees in BARMM. However, the standard deviation for each item indicates some variability in the respondents' level of agreement, suggesting that there may be some areas for improvement in terms of increasing work engagement across all indicators. Nonetheless, the high mean scores indicate that the participants were highly engaged in their work in vigor, dedication, and absorption, which could contribute to increased productivity and organizational success.

For the participants level of assessment of the organizational performance in BARMM in terms of organizational commitment and productivity. Overall results indicate that the participants had a positive perception of the organization's performance, with a "Very Satisfactory" rating. The items related to organizational commitment and productivity received high mean scores, suggesting that the participants were willing to put in extra effort, had a high level of loyalty, and were involved and committed to their work. However, some items related to organizational commitment received lower mean scores, indicating that the participants were not willing to accept any type of job assignment to keep working for the organization, they could quickly

work for a different organization, or they may leave the organization if present circumstances change. The standard deviation for the productivity factors suggests a high level of agreement and alignment. In contrast, the standard deviation for organizational commitment factors suggests a greater diversity of opinions and attitudes toward organizational commitment. The study's findings are consistent with previous research highlighting the importance of organizational commitment and productivity for overall organizational success.

On the other hand, the study found a strong positive correlation between organizational productivity (OP) and work engagement (WE) with a correlation coefficient of 0.859, indicating that when employees are highly engaged in their work, they are more likely to be productive. Additionally, significant positive correlations were found between OP and several Islamic values and principles, including Amana ($r= 0.787$), Strategic Planning in Human Resource Management (SPHR) ($r= 0.711$), Shura ($r= 0.720$), Adl ($r= 0.695$), Sabar ($r= 0.699$), Nyat ($r= 0.694$), and Ihsan ($r= 0.684$). However, weaker correlations were found between OP and some of the other Islamic values and principles, such as Taqwa ($r= 0.240$) and Ikhlas ($r= 0.498$). According to the findings, HRM practices that align with Islamic values and principles like integrity, trustworthiness, consultation, justice, patience, intention, and kindness can help improve organizational productivity in BARMM. The necessity of implementing human resource management strategies that are under Islamic beliefs and principles is highlighted by these results, consistent with earlier studies on the positive relationship between work engagement and productivity.

Furthermore, the study conducted a multiple regression analysis to identify the independent variables that best predict organizational performance in BARRM. The equation derived from the analysis shows that several factors significantly influence organizational performance, including NYAT, TAQWA, IHSAN, ADL, AMANA, SIDQ, IKHLAS, SHURA, Strategic Planning, and Work Engagement. The analysis results indicate a strong positive relationship between organizational performance and NYAT, AMANA, and SHURA. At the same time, TAQWA, ADL, and SIDQ have a strong negative relationship with organizational performance. The regression model as a whole is statistically significant, with an F-value of 168.749 and a p-value of 0.000, indicating that the model can explain a substantial proportion of the variance in organizational performance. These findings reject H02 that none of the independent variables significantly influences organizational performance. The analysis results are consistent with previous research that has identified the importance of various factors in influencing organizational performance. The study highlights the potential social benefits of implementing Islamic human resources practices, such as promoting cooperation, teamwork, and harmony in organizations and society.

Additionally, the study used a structural equation modeling (SEM) analysis to examine the relationship between Islamic human resource management and organizational performance. The results of the SEM analysis showed that five Islamic principles, namely Nyat, Ihsan, Amana, Shura, and Work Engagement, were positively related to organizational performance. In comparison, Taqwa, Adl, Sidq, Itqan, and Strategic Planning, were negatively associated with organizational performance. The beta coefficients revealed that Work Engagement had the highest positive relationship with organizational performance ($\beta = 0.688$), followed by Nyat ($\beta = 0.255$), Amana ($\beta = 0.333$), Shura ($\beta = 0.275$), and Ihsan ($\beta = 0.099$). Conversely, Strategic Planning had the strongest negative relationship with organizational performance ($\beta = -0.256$), followed by Taqwa ($\beta = -0.132$), Adl ($\beta = -0.209$), Sidq ($\beta = -0.175$), and Itqan ($\beta = 0.077$). The findings suggest incorporating Islamic principles into human resource management

practices to improve organizational performance. The standard of fit indices for the SEM analysis showed that the model provides a satisfactory explanation of the observed data, further adding confidence in using the structural model in evaluating the relationship between Islamic principles and organizational performance. The hypothesis “No best-fit model explains organization performance concerning Islamic Human Resource Management, Strategic Planning and Practices (Islamic recruitment and selection, Islamic training, and Islamic compensation)” is rejected. The model that can best explain organizational performance in relation to Islamic Human Resource Management is shown below:

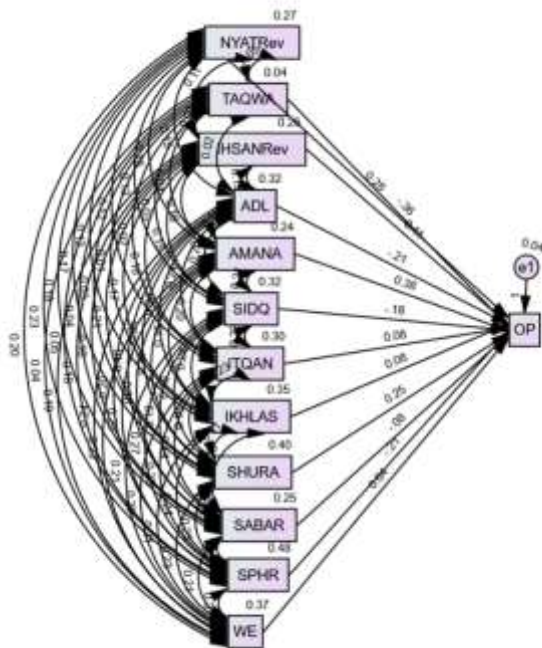


Figure 1: Model that can best explain organizational performance in relation to Islamic Human Resource Management

Conclusions

The research carried out in BARMM has provided insight into how participants assess Islamic human resource management practices, strategic planning, work engagement, and organizational performance. The study revealed that participants in BARMM highly agreed with Islamic human resource management practices, with overall mean scores above 4.0 for intention, Taqwa, Ihsan, Adl, trust, truthfulness, Itqan, Ikhlas, consultation, and patience. These results imply that BARMM employees regard and consider Islamic values necessary for efficient human resource management.

Regarding strategic planning and Islamic HRM practices, the participants had a positive assessment of HRM policies, workplace and environment, and leadership. Nonetheless, the study identified areas for improvement, particularly in HRM policies, which require clarification and consistency. The findings highlight the importance of aligning HRM policies with Islamic values and principles to enhance employee trust and engagement.

The study found that participants in BARMM generally feel positively engaged in their work in terms of vigor, dedication, and absorption. The findings suggest that maintaining a

harmonious work environment and a clean and organized workplace can contribute significantly to work engagement. Nonetheless, there are areas for improvement in increasing work engagement across all indicators.

The participants in BARMM had a positive assessment of organizational performance in terms of organizational commitment and productivity. While the participants demonstrated a high level of willingness to put in extra effort and loyalty towards the organization, there were some areas for improvement in organizational commitment. These findings highlight the importance of addressing organizational commitment to enhance employee engagement and retention.

The study found a strong positive relationship between work engagement, Islamic human resource management practices, and strategic planning with organizational performance in BARMM. The findings suggest that employee engagement is a crucial driver of organizational productivity, and aligning HRM policies with Islamic values and principles can enhance organizational productivity. The study also identified several independent variables significantly influencing organizational performance, including NYAT, TAQWA, IHSAN, ADL, AMANA, SIDQ, IKHLAS, SHURA, Strategic Planning, and Work Engagement.

Using structural equation modeling, the study determined the positive and negative relationships between Islamic principles and organizational performance. The results indicate that integrating Islamic values and principles into HRM practices can enhance organizational performance. However, additional research is required to create model that most effectively explains the relationship between Islamic Human Resource Management and organizational performance.

Overall, the study highlights the importance of promoting Islamic values and principles in human resource management practices to foster a caring environment that encourages teamwork and collaboration, contributing to the achievement of organizational goals and ultimately benefiting both the employees and the organization. These findings could guide organizations in developing strategies to promote employee work engagement and enhance organizational performance in BARMM and potentially other contexts.

Recommendations

As offshoots of the summary of the findings and anchored on the conclusions of the study, the following recommendations are offered to enhance the Islamic human resource management practices in the Bangsamoro Autonomous Region in Muslim Mindanao (BARMM).

The BARMM may continue to promote and uphold Islamic principles and values in their HRM practices, particularly in promoting Taqwa, Ihsan, Adl, trust, truthfulness, Itqan, consultation, and patience. These practices were positively perceived by the participants and can lead to ethical behavior, social responsibility, employee accountability.

The BARMM may improve its HRM policies, workplace and environment, and leadership practices. Specifically, the organization may clarify HRM policies, create a more consistent and clear organizational culture, and ensure effective leadership development and transition processes.

The BARMM may remain focus on maintaining a harmonious relationship, a clean and organized workplace, and effective communication to increase employee engagement. The organization can also consider addressing areas where there is variability in the participants' level of agreement to further improve work engagement.

For the organizational performance of BARMM, the organization may continue to prioritize organizational commitment and productivity as key drivers of success. The organization can also address areas where there is lower agreement among participants regarding corporate commitment to improve this aspect further.

Based on the finding that organizational performance is significantly related to Islamic principles and values in HRM practices, strategic planning, and work engagement, the organization may continue to align its HRM policies with Islamic values and principles, particularly in terms of integrity, trustworthiness, consultation, justice, patience, intention, and kindness contributing to enhancing organizational productivity in BARMM.

BARMM may prioritize the Islamic principles of Nyat, Amana, and Shura to influence organizational performance positively. The organization may also address the negative influence of Taqwa, Adl, and Sidq on organizational performance.

Based on the structural equation modeling analysis, the organization may incorporate Islamic principles into their HRM practices to improve organizational performance. Specifically, the organization may promote work engagement, Nyat, Amana, Shura, and Ihsan, while ensuring that strategic planning aligns with these principles.

Based on its significant results, the paper offers recommendations for stakeholders. Islamic human resource management (HRM) methods and strategic planning may be incorporated within the Bangsamoro Transition Authority's/Bangsamoro Parliament's organizational culture to foster ethical decision-making, increase social responsibility and accountability, and boost employee faith in performance evaluations. In addition, they need to do an excellent job of disseminating HRM rules to staff members. To increase employee dedication and productivity, the ministers and administrators of Bangsamoro should use Islamic human resource management methods and strategic planning. Their contribution to the community and its many stakeholders should be guided by Islamic values, principles and practical utility.

For Human Resource Officers, they may align HRM policies and practices with the organizational culture, communicate them effectively to enhance employee motivation and engagement and develop interventions to promote employee well-being and work engagement. Islamic human resource management (HRM) approaches may be studied to see how they affect employees' mental health, work satisfaction, and desire to leave an organization. Islamic values and principles might also be studied in connection to the efficiency of organizations in a variety of fields and industries.

To improve collaboration, teamwork, and social harmony in businesses and communities at large, it is suggested that other stakeholders advocate for Islamic HRM practices to be embraced. Moreover, organizations may develop strategies to address areas for improvement in organizational commitment and work engagement to enhance employee engagement and retention.

Overall, the study's findings provide insights into the benefits of incorporating Islamic values and principles into HRM practices, promoting ethical behavior, social responsibility, and accountability among personnel in BARMM. By adopting and promoting Islamic HRM practices, organizations in the region may enhance employee engagement, trust, and productivity, contributing to achieving organizational goals and objectives. Along these lines, future research into the link between Islamic HRM practices and organizational performance may want to take into account correcting the limitations of the study result. In particular, prospective studies might look at the influence of Islamic HRM practices in settings outside BARMM and examine the connection between employee work engagement and organizational performance within the framework of Islamic HRM.

There is also a need for further study on how Islamic HRM practices affect employee job engagement and organizational performance. More research might examine at how interest in one's job mediates the connection between Islamic HRM practices and business success. Studies of this kind may provide insight into the mechanisms and processes through which Islamic HRM practices promote the effectiveness of organizations.

In addition to the aforementioned, further studies may also explore the relationship between employee work engagement and organizational performance in the context of Islamic HRM practices. Specifically, it could investigate the extent to which employee work engagement mediates the relationship between Islamic HRM practices and organizational performance. Such studies could provide valuable insights into the mechanisms through which Islamic HRM practices contribute to enhancing organizational effectiveness.

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ANALYSIS OF STUDENT NEEDS IN TAX LAW LEARNING DESIGN

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Abstract: *Education is essentially an activity carried out by students that results in changes in their personalities. This principle implies that what must be prioritized is the learning activities of students rather than something given to students where the educational process leads to attitude formation, intelligence or intellectual development, and development of children's skills as needed. This study aims to analyze the needs of students for the development of learning media in the Tax Law Course at STIH IBLAM, Jakarta where a gap is obtained between the existing conditions that are not in accordance with the conditions that should or expected conditions. Research methods using google form online for questionnaires with qualitative data types. The formulation of the problems of this study are: 1. How is the role of analyzing the needs of students in the learning design of Tax Law Subject? 2. How are the steps of analyzing the needs of students in the learning design of Tax Law Subject? The results of this study are: The learning media used are ordinary while the course material is too much, difficult to understand, requires accuracy and more time in working on taxation questions so that the exam results are not optimal. By analyzing the needs can measure the difference between the conditions that should be expected with the existing conditions and by using the method.*

Keywords: *Needs Analysis, Learning Problems, Tax*

Introduction

Background of the Problem

On the Unicef website, it is stated that in Indonesia there are around 4.1 million children and adolescents aged 7 to 18 who are not in school.¹ Children and adolescents from poor families, people with disabilities, and those living in remote and disadvantaged areas in Indonesia are at the highest risk of dropping out of school, with adolescents of secondary school age (13 to 15 years old) belonging to the poorest household of 5 more likely to drop out than adolescents from the richest households.²

Geographically, the proportion of out-of-school children ranges from 1.3% in Yogyakarta - a relatively affluent region - to 20.7% in Papua - the easternmost and poorest province in Indonesia (Susenas 2020). Analysis of the 2015 Inter-Census Population Survey shows that 57% of school-age children and adolescents with disabilities are not in school. Adolescents also lack opportunities to reach their full potential. Of Indonesia's 46 million youth, nearly a

¹ https://www.unicef.org/indonesia/id/pendidikan-dan-remaja?gclid=CjwKCAjwyNSoBhA9EiwA5aYlb9MarOaTMMs6bV595EAsOeVqJXaQ7ukOOq9jALRG1j_dytt7gHoiijhoCgMsQAvD_BwE

² Ibid

quarter of those aged 15 to 19 are not in school, work or training. The youth unemployment rate stands at around 15%.³

Education in Indonesia includes all education organized in Indonesia, both structured and unstructured. Structurally, education in Indonesia is the responsibility of the Ministry of Education and Culture of the Republic of Indonesia, formerly known as the Ministry of National Education of the Republic of Indonesia. In Indonesia, the entire population must follow a nine-year compulsory education program, including six years of primary school and three years of secondary school.⁴

Recently, the Government and the House of Representatives have passed a draft law on harmonization of tax regulations. This regulation is considered necessary because tax revenue itself has always been the backbone of public finance in Indonesia. Despite its important role, tax revenue potential can and should still be increased. In the 2022 State Budget, the government set a tax collection target of IDR1,262.92 trillion. However, Indonesia's tax rate is still relatively low, while in 2020 Indonesia's tax-to-GDP ratio was only around 8.5%, down from the previous period. The government, especially the Tax Department, has a tough task to raise the tax rate in the medium term.⁵

Of course, tax compliance can be improved through law enforcement. However, "tax awareness" focuses more on the intrinsic motivation of taxpayers, which is an important factor in supporting tax compliance (Andreoni, et al., 1998).⁶ A tax education program based on the idea that early education of taxpayers will increase compliance in the future is one of the policy alternatives for the government. Theoretically, Eriksen and Fallan (1996) argue that tax awareness is influenced by the level of tax knowledge.⁷ Tax knowledge increases awareness and ethics thereby reducing the tendency to violate tax regulations.⁸ Therefore, tax education programs are expected to increase tax compliance in the future.⁹

In line with the above, since 2014, the Department General of Taxes (DGT) has implemented a tax education program named Tax Awareness Program (Inclusion) with the aim of increasing tax awareness in all levels of society. The targets of this program are students, teachers and lecturers, the educators of the next generation. Tax inclusion is achieved by integrating tax awareness materials into four main aspects of education, namely curriculum, learning, books, and student activities. In addition, DGT also organizes the annual Talking Tax (Patur) event which has been held since 2017. DGT carries out Patur activities by conducting one-day visits to schools and palaces, providing taxation-related documents in the context of taxation introduction. concept. sent to students.¹⁰

This Tax Speaking activity was also carried out simultaneously nationally at the DGT Head Office, all DGT Regional Offices, KPP and Tax and Advisory, Consultation and Consultation

³ Ibid

⁴ https://id.wikipedia.org/wiki/Pendidikan_di_Indonesia

⁵ Tantangan Edukasi Pajak di Indonesia Oleh: Yulianti Abbas, Ph.D., Ketua Program Studi Pascasarjana Ilmu Akuntansi FEB UI dan Christine Tjen, S.E., Ak., M.Int.Tax, CA., Koordinator Tax Education and Research Center FEB UI, <https://feb.ui.ac.id/2021/10/23/tantangan-edukasi-pajak-di-indonesia/>

⁶ <https://feb.ui.ac.id/2021/10/23/tantangan-edukasi-pajak-di-indonesia//>

⁷ <https://feb.ui.ac.id/2021/10/23/tantangan-edukasi-pajak-di-indonesia/>

⁸ <https://uiupdate.ui.ac.id/article/tantangan-edukasi-pajak-di-indonesia/>

⁹ <https://www.pajakku.com/read/5de09f83387af773a9e011e8/Tumbuhkan-kesadaran-pajak-sejak-dini-dimulai-dari-lingkungan-pendidikan>

¹⁰ Ibid

Service offices (KP2KP) spread throughout Indonesia. For information, the Bicara Pajak activity has been implemented since 2017. Tax Talk is a teaching activity carried out by all work units of the General Department of Taxes throughout Indonesia simultaneously at the Elementary School, Junior High School and Senior High School levels.¹¹

There are many positive things contained in this activity. One of them is by changing the model of paying taxes due to coercion to proudly complying with tax regulations. Because people need to realize that by respecting taxes, it means that people have become heroes in this country. Nowadays, heroes are not just people who wear masks. By obediently paying taxes, you can be considered a hero because you have contributed to the development of the Indonesian state, where it is known that 85% of state revenue comes from tax revenue. Those who fulfill their tax obligations should be proud because they have contributed directly to the Indonesian state. So, let us together build a better country by respecting tax regulations. Let us synergize to become a tax-aware generation and fulfill our obligations as taxpayers. Because taxes serve the welfare of hundreds of millions of Indonesians.¹²

The Constitutional Court (MK) ruled that the organizational, administrative, and financial leadership of the Tax Court should be transferred from the Ministry of Finance (MoF) to the Supreme Court (MA). This change will be implemented no later than December 31, 2026. The reason for the applicant to file a judicial review of the Tax Court Law is that Article 5 paragraph (2) of Law 14 of 2002 concerning the Tax Court is considered inconsistent, inconsistent, or contrary to the principles of the rule of law and independence of power.

Independent in exercising judicial power to administer justice to protect law and justice as stipulated in Article 24 paragraph (1) of the 1945 Law. With the decision determined by the Constitutional Court, the Related Parties must gradually and immediately prepare themselves. regulations relating to all legal needs, including procedural law to improve the professionalism of Tax Court employees, as well as document preparation, and integration of the jurisdiction of the Supreme Court.

Department of Tax Law IBLAM College of Law Jakarta with the opening of Tax Law Department. The research areas of the Tax Law Department include central tax law, tax policy and law, local taxes, international tax law, tax disputes and crimes, tax per capita by industry, accounting lawyers and tax dispute law. In addition to academic activities in the form of lectures, the Department of Taxation Law also organizes internship activities in coordination with the Regional Office of the General Department of Taxation, the General Department of Customs and Special Consumption Tax, as well as the Ministry of Finance of the Republic of Indonesia. and tax authorities. consultants. This internship activity is intended to help students have an overview of one of the fields of work that they can choose in the future after graduating from the Faculty of Law.

Problem Identification

Through the test results, it can be seen that STIH IBLAM students have low taxation capacity and knowledge and have not achieved the expected results in tax law courses. Difficulties in

¹¹ Ibid

¹² <https://www.pajakku.com/read/5de09f83387af773a9e011e8/Tumbuhkan-kesadaran-pajak-sejak-dini-dimulai-dari-lingkungan-pendidikan>

understanding and solving taxation problems have been noted in the learning literature and problem identification. This course is only used as a presentation tool (PPT) and another problem is the ability of lecturers to develop teaching materials and methods so that students can more easily understand and be able to work on tax law problems.

The difference between desired/needed or expected conditions and existing conditions. The needs assessment method was created to be able to measure the level of gaps that occur in the student learning process compared to what is expected and what is achieved. The stages of needs analysis described by Glasgow are activities ranging from information gathering to problem formulation. Meanwhile, Morrison describes needs assessment as activities ranging from planning to writing the final report. The way to apply needs analysis in teaching and learning is that teachers should focus on achieving objectives and then look for appropriate materials to achieve these objectives. Once you have mastered the objectives and the material, it's just a matter of applying the right strategies and implementation methods.

Research Methodology

The research method used by the author is a qualitative method. Qualitative research is a research process that produces descriptive data in the form of human speech or text and observable behavior. Sugijono argues that the descriptive method is a method used to describe or analyze research results and not to draw broader conclusions, while Wina Sanjaya explains that "...descriptive research is research conducted to describe or explain certain events and characteristics systematically, practically and accurately".

Qualitative description method. Descriptive research does not require treatment or monitoring. Descriptive research does not aim to study a particular hypothesis but simply describes "what it is" about a variable, a symptom, or a situation. Soukardi (2003: 157) argues that descriptive research is often carried out with the main purpose of systematically describing the facts and characteristics of the object or subject under study. Data collection techniques are by collecting data, especially interviews, observations, ideal standards, questionnaires to teachers and students.

This research was conducted in the framework of the STIH IBLAM Jakarta Tax Law Course in the 2022 semester. Data collection in this study used a questionnaire with qualitative data types and was distributed using Google Form so that respondents could fill out the questionnaire online. The time for filling out the questionnaire was from September 20 to 22, 2023. The scale used in the questionnaire is divided into two types. For questions whose answers are respondents' opinions, the scale used is a nominal scale. As for questions whose answers are in the form of respondents' assessments, the scale used is the Likert scale. For nominal scale data, the data is calculated based on the number of respondents in each answer choice on the questionnaire. For data with a Likert scale, the data is calculated using the following formula: The calculated score is then compared with the item score multiplied by the number of respondents for each item.

Problem Formulation

1. What is the role of learner needs analysis in the learning design of Tax Law Course?
2. What are the steps of analyzing learners' needs in the learning design of Tax Law Course?

Research Objectives

This study aims to analyze the needs of learners on students' understanding and learning abilities of Tax Law courses at STIH IBLAM, Jakarta. Needs analysis is carried out based on the first stage of the Lee and Owens model, namely assessment or analysis. The result of this research is a needs analysis whose main purpose is to identify gaps between actual conditions and conditions that should be. Data collection in this study using a questionnaire with qualitative data types.

The questionnaire was distributed using google form so that respondents could fill out the questionnaire online. Based on the results of the needs analysis that has been carried out, there are several problems with the learning media used: (1) the learning media used is ordinary so that it is less motivating to learn, (2) the learning material includes difficult material, but understanding of the material is normal, and (3) the learning material used is still in the form of presentation media.

Discussion

Definition of Needs Identification

In learning activities, educators must recognize student learning needs through identification activities. The word identity comes from English. The origin of the word determination is a verb and determination is a noun. Determine simply means: to realize. In this article, identifying learning needs means recognizing the learning needs of prospective students or a specific group of people who will be targeted by students. Everyone has a need to learn and throughout life, humans need to learn Humans must learn throughout their lives. By learning, humans maintain human existence.

Human needs are unlimited, but not all human needs are always satisfied; this is related to the ability of humans to meet their needs. The problem we face today is what is the need for learning? What should these needs be identified for, and how should they be identified?

Learning needs essentially describe the gap between the desired learning objectives and the actual learning conditions or circumstances. The needs of each person in living conditions are different. These needs must be determined to identify which needs have the most potential in terms of usefulness and satisfaction. Needs are tendencies that take place continuously in a person that cause encouragement and behavior aimed at achieving certain goals.

Needs arise due to changes (internal changes) in the organization or due to the influence of events in the organization's environment (Oemar Hamalik, 1978), while according to Atwi Suparman (2001), needs are roughly the path between the current situation and what happens. he. should be in a different but the same editorial.¹³ And according to Morriso (2001), needs are defined as the gap between expected conditions and actual conditions, with desires as future expectations or ideals related to solving a problem. And according to Djuju Sudjana (2001), learning needs can be understood as the gap between the level of knowledge, skills and / or

¹³ Atwi Suparman, Desain Instructional, Proyek pengembangan Universitas Terbuka Ditjen Dikti Departemen Pendidikan Nasional, 2001.

attitudes possessed at a certain time and the level of knowledge, skills and / or attitudes possessed by a person, group, organization, and / or ideals to have. or society that can only be achieved through learning activities.

In other words, a need is a gap between the existing conditions and the conditions that should exist. Learning needs or educational needs are measurable gaps between current learning outcomes or abilities and desired/needed learning outcomes or abilities. Learning needs can be understood as the gap between the level of knowledge, skills, and/or attitudes possessed at a certain time and the level of knowledge, skills, and/or attitudes that a person, group, institution, or organization, and/or community wants to have can only be achieved through learning activities.

Needs can also be interpreted as things that humans need in their lives to achieve better results (goals). Learning is a process of change for the better, transforming those who do not know how, are not good, into good, worthless people. Learning needs essentially describe the gap between the desired learning objectives and the actual conditions. Thus, what is meant by identifying learning needs is an activity or effort made to find the elements needed in learning and elements that can help achieve learning goals, whether the learning process takes place in the family environment (informal) or not, school (formal), and community (informal).

Meanwhile, according to Maslow, basic human needs are prioritized from lowest to highest. This theory is called the hierarchy (level) theory of human needs. The five levels of basic human needs are: (1) food needs (basic needs), (2) protection needs (security needs), (3) emotional needs (love needs), (4) the need for abundant self-recognition (need for appreciation), and (5) the need to achieve or discover one's true nature (self-actualization needs).

The following describes the basic levels of human needs and their explanations. A. Basic needs are the basic needs that every human being has. Physiological needs are relatively more dominant than other needs so that other needs arise. B. Security needs are needs that include a sense of security, stability, dependence, freedom, fear, anxiety and confusion, the need for structure, order, law, and the limits of power, strength, protection, and so on. C. Compared to the need for love or the need for belonging and love, these are needs that arise after physiological needs and security needs are met. This means people in their lives need to feel loved and valued by each other and reach out to others. D. The need for respect or the need for self-esteem. Everyone in society needs or wants a stable assessment of himself or herself, a solid foundation of respect or self-esteem and appreciation of others. This need is divided into two levels: The desire for power, success, wealth, superiority and ability, self-confidence, independence and freedom. The desire for a good name or prestige and self-esteem, prestige (respect and appreciation of others), status, fame and glory, dominance, recognition, attention and dignity. E. The need for self-actualization or the need for self-realization, specifically the tendency to view oneself in terms of one's abilities.

Based on the description above, it can be concluded that identification of learning needs is the process of determining the learning needs of prospective students accurately and systematically as a document for preparing educational programs. Learning needs vary, so each person often has different learning needs. In a group of ten people, each member may have more than ten types of learning needs.

A person's sensory needs may be different if the time and space are different. The learning needs of someone who lives in the countryside may be different from the learning needs of someone who lives in the city.

Last year's learning needs may be different from next year's learning needs. If one learning need is met, other learning needs will arise and need to be met through learning activities.

Learning needs should be determined through an individualized approach. This determination is done by using appropriate tools that can reveal the information expressed by each individual who feels a learning need. These tools include interviews, questionnaires, and maps or documents. Learning needs that are felt equally by each individual in a group are called group learning needs. These group learning needs can often be met through shared learning activities or group learning activities.

The place where learning activities that are commonly carried out in groups take place is called a learning group. Learning groups aim to create a learning process based on previously identified learning needs. In other words, the results of identifying the needs of learning materials are used as input for curriculum or curriculum preparation.

Learning Needs Analysis Function

The needs assessment method was created to be able to measure the level of deficiencies that occur in the student learning process compared to what is expected and what is achieved. To measure the gap, the analysis must be objective or able to recognize some of the problems faced. The function of needs assessment according to Marisson¹⁴ That is:

1. Identify needs related to the job or task at hand, e.g. problems affecting learning outcomes.
2. Identify urgent needs related to finance, safety or other issues affecting the work or education environment.
3. Present priorities for choosing actions.
4. Provide baseline data to analyze learning effectiveness.

We identify learning needs with objectives: A. Find out the learning needs of prospective students. B. Find out what obstacles prospective students face in learning. C. compare with Exploring the potential of prospective students and the local community, including the potential of community leaders, religious leaders, resource persons, learning resources, culture, nature, social community organizations, values and customs.

Learning Design Function

The function of learning planning and design according to Sagala¹⁵ is as follows:

1. As a guide to the direction of activities in achieving goals
2. As a basic pattern in regulating the duties and authorities for each element involved in the activity.
3. As a work guideline for every element, both teachers and students.
4. As a measuring tool for whether a job is effective or not, so that at any time it is known whether the work is fixed or not.
5. For data preparation materials for work balance

¹⁴ Morison dkk. 2001. Fungsi dan Manfaat Media Pembelajaran. Jakarta.

¹⁵ Sagala, Saiful. 2005. Konsep dan Makna Pembelajaran. Bandung: Alfabeta

6. Save time, energy, tools and costs
7. Improve the ability of learners (instructors, teachers, widya iswara, lecturers and others)
8. Produce learning resources
9. Develop a teaching and learning system
10. Developing the organization into a learning organization

Steps of needs analysis in learning design

Glasgow describes needs assessment as activities starting from the information gathering stage to problem formulation. Meanwhile, Morrison describes a needs assessment as activities ranging from planning to writing the final report. An example of a needs assessment step according to Glasgow is as follows:

1. Information gathering steps At this stage, designers should be able to understand and gather information from students. The scope of information collection can vary, such as student characteristics, personal abilities, and learning problems.
2. Steps to determine the gap. According to Kaufman, gap identification is carried out using the organizational factor model method, which explains the existence of five interrelated factors. From input-process-product-output-results.
3. Performance analysis. This step is carried out after the designer has understood the various information and identified the gaps. In this case, when gaps are found, which gaps can be addressed through lesson planning and which gaps require other solutions can be identified.
4. Identify barriers and resources. At this stage of program implementation, various obstacles may arise that hinder the smooth running of the program. Constraints may include time, facilities, materials, and others. Resources can also come from the organization, facilities, and funding.
5. Identifying student characteristics. This step is the process of identifying student problems. Because the main purpose of learning design is to solve various problems faced by students.
6. Goal identification. Goal setting is one of the most important steps in a needs assessment, as it is the process of identifying the most urgent needs that need to be addressed based on conditions, as not all needs are also targeted.
7. Identify the problem. This is the last step in the analysis process, which involves writing statements to guide the instructional design process.

Meanwhile, according to Morrison, the steps of need assessment are as follows:

1. Planning: what needs to be done; classifying students, who will be involved in the activity and how to collect them
2. Data collection: need to consider the size of the sample in its distribution.
3. Data analysis: after the data is collected then the data is analyzed with consideration: economy, rank, frequency and necessity.
4. Produce a final report: a needs analysis report includes four sections; goal analysis, process analysis, result analysis with tables and brief explanations, recommendations related to the data.

Needs Analysis Techniques in Learning Planning

In understanding the needs analysis, namely:

1. Needs analysis is a series of deep and systematic thinking processes to make decisions;
2. A need is the gap between the desired ideal and the resulting reality.

Therefore, a needs analysis is a deep thinking activity that aims to gather information about the gap between reality and expectations. When planning your studies for tax law courses, needs analysis plays a very important role. Because as a form of learning, taxation law certainly has objectives to be achieved as well as skills that must be possessed by students. Cognitive, psychomotor and especially emotional aspects have a big task to keep developing to be better and more effective.

Function of Needs Analysis in Learning Planning Function of needs analysis:

- a. Identify needs relevant to the current job or task, i.e. issues that affect learning outcomes;
- b. Identify urgent needs related to financial, safety or other issues that interfere with the work or educational environment;
- c. Presenting a prioritized scale to choose the right action to address learning problems;
- d. Provides a database for analyzing the effectiveness of learning activities.

Purpose of learning needs analysis learning needs analysis aims:

- a. Inventory and identify learning problems;
- b. Prioritizing problem solving in learning;
- c. Formulating learning objectives Problem identification is the process of comparing the current situation with the desired or supposed situation.

The result of such determination will address the gap between the two, especially between reality and expectation. This gap is called demand. The wider the gap, the greater the need to address it, thus making this issue a priority. If reduced, the need may be ignored for a while, because there are other and more important needs.

This means that not every need is considered a problem that needs to be resolved immediately. Thus, from the identification of the problem, information will emerge that is classified according to the level of the problem.

Important steps in a needs analysis activity include:

- a. Gathering Information When designing a lesson for the first time, teachers must first understand information about what students can do, who understands what, who will learn, what obstacles will be encountered, and how certain circumstances affect student characteristics. The various information gathered will be useful in determining the objectives to be achieved as well as the prioritization of problem solving;
- b. Gap Identification The gap identification method is based on five interrelated factors. The first two components, namely inputs and processes, explain how to utilize every potential and resource available, while the last component includes products, outputs and results which are the final results of a process.
- c. Performance Analysis The third step in the needs analysis process is the performance analysis step. Performance analysis is conducted after the instructor has comprehended the various information and identified the gaps. When you look at the gaps, identify those that can be addressed through tax law lesson planning and those that need to be addressed through other means, such as legal education other than tax, extracurricular activities, new management policies, determination of a better organizational structure, or perhaps gaps that exist through development.
- d. Identifying Obstacles The fourth step of the needs analysis involves identifying the various obstacles that arise and their sources. In implementing a program, various obstacles may arise and hinder the smooth running of the program.

- e. Identifying student characteristics The fifth step in needs analysis is identifying students. The main purpose of learning design is to solve various problems faced by students. Therefore, issues related to students are part of the needs analysis. Student-related identities include age, gender, education level, socio-economic level, background, learning style, experience and attitude. The student characteristics described above will be useful when we determine the objectives to be achieved, select and use learning strategies that are considered appropriate, as well as in identifying appropriate assessment techniques;
- f. Kaufman (1983) defines needs analysis as a process of identifying, documenting and justifying the gap between what is and what is to be created by determining the project priority scope of each need. The proposed definition (Kaufman, 1983) is closely related to the objectives to be achieved. Therefore, determining the objectives to be achieved is one of the activities that must be carried out in the needs analysis process;
- g. Problem formulation The final step in the problem analysis process is to write a problem statement that will guide the learning design process. Problem writing is basically a summary or the core of the problem to be identified. The problem statement should be short and to the point, usually no more than one or two paragraphs.

Talking about learning methods or techniques, we often encounter various teaching methods that are called general teaching methods because they can be used in any learning activities and activities. These methods are 1) question and answer method, 2) group discussion, 3) information discussion, 4) investigation, 5) homework, 6) sharing, 7) simulation, 8) lecture, 9) role play and 10) snowballing. The selection of appropriate learning methods must be in accordance with religious requirements and consider whether their use is effective in achieving the transformation of knowledge and the acquisition of values.

Strategies for Needs Assessment Analysis in Learning Design

In the context of curriculum development, John McNeil (1985) defines needs assessment as follows: "the process of identifying educational needs and determining their priorities". Consistent with McNeil's perspective, Seels and Glasglow (1990) explain the notion of needs assessment: "It means a plan for gathering information about differences and using that information to make decisions about priorities." Meanwhile, according to Anderson, needs analysis is defined as the process of identifying needs and determining priorities. Needs assessment (needs analysis) is a way or method to find differences between conditions that are desired / should be (should / should be) or expected conditions with existing conditions (what is). Desired conditions are often called ideal conditions, while current conditions are often called actual conditions or actual conditions..

Atwi Suparman (2001 : 65-72)¹⁶ There are 8 steps in identifying learning needs as follows:

Step 1: Identify the gap between current and idealized achievement results. To obtain this data, the following methods were used: reading written reports, observations, interviews, questionnaires and documents.

Step 2: Before taking any problem-solving action, the gap should be assessed in terms of the significance of its impact, the extent of its scope, and its importance to the future of the institution or program.

Step 3: What to do in this step :

¹⁶ Atwi Suparman, Desain Intructional, Proyek pengembangan Universitas Terbuka Ditjen Dikti Departemen Pendidikan Nasional, 2001.

- a. Analyze possible causes of gaps through observations, interviews, logical analysis
- b. Separating out possible causes that do not stem from deficiencies in knowledge, skills and attitudes to be handed over for resolution to others.
- c. Classify possible causes stemming from specific knowledge skill and attitude deficiencies to be carried forward to step 4.

Step 4: Interview students to separate those who have and those who have not received education, those with education proceed to step 5 and those without proceed to step 8.

Step 5: For participants who are already educated at this step, they are further categorized into those who frequently attend education to step 6 and those who rarely attend education to step 7.

Step 6: The group that has received frequent education is given feedback on its shortcomings and asked to practice again until it can perform the task as desired.

Step 7: Those who have not participated in education are given more opportunities to retrain, this needs to be supervised closely in order to achieve the desired results.

Step 8: For groups of participants who have never received education, it is necessary to create an instructional plan that includes the necessary knowledge and skills for participants to know.

Learning Needs Model

The learning model has six basic models, which are as follows:¹⁷

1. Focus is the main goal of the model. The focus component revolves around the main purpose of the model. The learning focus is to promote learning by manipulating thinking or types of thinking; learning growth through external stimuli or rewards; social learning, or social and emotional growth through interaction; or increased levels of self-achievement and personal growth through personally directed choices. Models are usually developed with a specific focus, end goal, or intention in mind.
2. Syntax: describes the structure of the model and includes the sequence of steps involved in organizing the model. It includes the main components and the disassembly phase, or sequence of steps, and describes how the model runs. Of course, the syntax can be very different for each model.
3. Reaction Principle: tells lecturers how to pay attention to learners and how to respond to what learners do when using the model. This is where the lecturer knows the students have been actively involved in the process and steps of the model.
4. Social System: describes the interaction between students and lecturers as each model is viewed as a mini-society. As each teaching model is different, each model will have its own social system and rules of engagement. This section concerns the interactive roles and relationships between lecturers and students, the expected norms, and which student behaviors should be rewarded. These can be overtly described or simply inferred.
5. Application and effects are rather obvious - how can students use the models they are taught? Application is the usefulness of the model as it can be transferred to other situations. Each model tries to impose some changes on learners and influence their thinking, feelings, social interactions, or physical movements in such a way that those changes can be transferred to other situations and experiences.

¹⁷ <http://repository.unimus.ac.id/3616/6/BAB%205.pdf>

Conclusion

Needs analysis is a method to determine the difference between the existing conditions that are problematic compared to the desired conditions that have been set as the minimum expected output standards (there is a gap) and continued with data collection and information as problem identification and formulating problems, planning, trials until the final results report.

The way to apply needs analysis in teaching and learning is that the teacher must focus on achieving goals and then look for the right material so that these goals can be achieved. After the objectives and materials are mastered, it is only a matter of applying the appropriate strategies and methods to be applied.

Need analysis is a way or method to determine the difference between the conditions that are desired / should be (should be / ought to be) or expected with existing conditions (what is). The Need Assessment method is made to be able to measure the level of gaps that occur in student learning from what is expected and what has been obtained. The steps of needs analysis are described by Glasgow in the form of activities starting from the information gathering stage to formulating the problem.

Meanwhile, Morrison describes Need assessment in the form of activities that start from planning to making a final report. The way to apply needs analysis in teaching and learning is that teachers must focus their attention towards achieving goals and then look for the right material so that these goals can be achieved. After the objectives and materials are mastered, it remains only to apply the appropriate strategies and methods to be applied.

Needs analysis is scientific work. Needs analysis work is a series of deep and systematic thinking processes to make decisions. This decision is based on the gap between reality and the desired ideal goal.

A needs analysis is a deep-thinking activity to gather information about the gap between reality and expectations.

The functions of a needs analysis are to identify needs relevant to the current job or task, i.e., problems that affect learning outcomes; identify urgent needs related to financial, security or other issues that interfere with the work or educational environment; present a priority scale for selecting appropriate actions to address learning problems; and provide a database for analyzing the effectiveness of learning activities.

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THE INFLUENCES OF STUDENT'S LEARNING SUPPORT ON STUDENT'S ONLINE LEARNING SATISFACTION IN MALAYSIA

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Abstract: *Because of the COVID-19 epidemic, which prompted millions of students and faculty members to flee their university buildings and retire to their homes, online learning swiftly became the usual mode of education. There are some obstacles that stand in the way of this transformation, such as unlimited internet access, the availability of computers for online classrooms, students' attitudes towards online learning, the instructor's limited ability to deliver personalised training, and so on. Students will be the most impacted by the changes due to the changes in the teaching and learning process, which will affect their satisfaction with their online learning. Numerous studies have been conducted to address this issue, but relatively few have looked at how the environment impacts or promotes student learning elements. As a result, the current study is justified in investigating the impact of instructional, peer, and technical support on students' satisfaction with their online learning experiences at Selangor's public institutions. This study enlisted the participation of 357 undergraduate students. Data was collected via an online survey using Google Forms, and analysis was performed using SEM - Partial Least Square (PLS) software. While technological support was not shown to be relevant in influencing student learning satisfaction, the other two categories studied—instructional support and peer support—were. These findings can assist academics and institutions in strengthening their efforts to properly serve students while maintaining the continuity of online learning in teaching and learning. In the post-pandemic period, the government can also help design strategic policies to increase user happiness with online learning. Restrictions and suggestions are also taken into account. There is also a discussion of limitations and recommendations.*

Keywords: *Online learning satisfaction; Instructional support; Peer support; Technical support; Students*

Introduction

Online educational programs have grown because to the internet and contemporary information technology, which has transformed education due to the 2020 COVID-19 pandemic. The World Wide Web (www) has become a significant educational tool, providing students with new learning opportunities. Modern technology has made online education an alternative or substantial supplement to traditional teaching and learning (Coman et al., 2020; Lemay et al.,

2021). Online education is becoming increasingly popular and can be offered by universities to full-time, part-time, traditional, non-traditional, international, and local students.

Online learning occurs when teachers and students are not physically present, Roffe (2002) described distant learning as electronic communication and learning that have become a key competitive advantage in the information society. Distance learning include e-learning, remote learning, online collaborative learning, virtual learning, web-based learning, and technology-mediated learning. Due to consumer demand for flexible education programs to encourage career development and lifelong learning, Debourgh (1999) highlighted that people's expectations for quality instruction, successful educational results, and learning satisfaction have increased.

Learning satisfaction refers to the emotional state or mindset of learners that they are able to fulfill their desires and needs through their learning activities or processes. This concept has been studied and defined by various researchers, including Topola and Tomozii (2014), Sanchez-Franco (2009), and Long (1989). In these studies, learning satisfaction is seen as an important factor in determining the effectiveness of a learning experience. It is believed that if learners feel satisfied with their learning activities, they are more likely to be engaged and motivated to continue learning.

Wang et al., (2019) explained that a student's satisfaction in any educational setting can be affected by several factors that affect their learning. Statistics show that students who are happier with their e-learning courses learn more (Fredericksen, 2000). Many studies have examined student learning satisfaction (Cheng & Chau, 2016, She et al., 2021; Musyafii, 2021, Jiménez-Bucarey, 2021, Baharuddin et al., 2022), but few have examined student learning support, especially in developing countries like Malaysia.

It's well known that student learning support is crucial to maximizing learning in any setting. Support has been linked to student motivation and learning. Successful achievement of learning goals and objectives need student learning support (Zhao et al., 2022; Ertesvåg, 2021; Lee et al., 2011). Recent research such as Zhao et al. (2022) supports Earwaker (1992)'s claim that student learning support should “ensure that they derive maximum benefit from their course”. Course effectiveness is largely determined by student support. Faculty and instructional designers must consider student support while creating a course. In online courses, student learning environments must be established and supported.

Thus, it is important to provide learning support services in an online learning environment to ensure that students have access to the resources, personnel, and facilities they need to succeed (Sewart, 1993). This can help to create a more inclusive and effective learning experience for all students, regardless of their background or abilities. Additionally, providing learning support services can help to address common challenges that students may face in an online learning environment, such as lack of motivation, difficulty staying organized, and difficulty staying on track with coursework. By offering these services, faculty can help to ensure that students are able to achieve their academic goals and reach their full potential.

On top of that, student perceptions of online learning vary greatly (Syaharuddin et al., 2021; Kruja et al., 2021; Muilenburg & Berge, 2005). Students may also feel differently about learning support that boosts confidence and pleasure (Anto & Coenders, 2019). Transactional distance is thought to affect student learning by affecting their feeling of support. Support

perceptions positively affect student learning outcomes, achievement, and course satisfaction (Mullen & Tallent-Runnels, 2006). Therefore, learning environments should provide suitable support, course material and activity organization, and effective communication to reduce transactional distance and enhance student learning. Identifying these elements can help propose support levels that improve and maintain student satisfaction with online learning.

The major goal of this study was to explore the relationship between instructional, peer, and technical assistance and student online learning satisfaction. This research may add to the knowledge of online learning, which has grown since the COVID-19 epidemic. This research will increase knowledge about student learning assistance, which will help determine what forms of support are needed or need to be improved to better education.

Literature Review and Hypotheses Development

Students' Online Learning Satisfaction

Astin (1993) defined student satisfaction as how a student felt about their college or university experience and how significant their education was. Levy's 2003 study of 200 e-learning students found that student happiness affects its effectiveness. Rapid rise of the internet and other web resources has sped online teaching and learning, affecting its quality (Kramer, 2000). According to Zaidel (2007), technology in teaching is prevalent. Modern communication has changed students' choices from in-person to online learning. The availability of online learning, course selections, and increased enrollment rates all emphasize this teaching style (Zapalska & Brozik, 2006). Distance learning students perform similarly to in-person students, according to Brownson and Harriman (2000). Also, Johnson et al. (2000) observed no significant differences in student learning effectiveness between face-to-face and online courses. Remote education's independent, student-centered, and tutor-guided involvement allows instructors and students to interact in ways that may not be possible in a traditional classroom (Michailidou & Economides, 2003). Empirically, numerous studies have been conducted on the factors that influence online learning satisfaction from the different perspectives. Notably, recent researches have focused more on the factors that related to the students' supports. For example, Yu (2022) examined 233 papers published from year 2012 to year 2022 that discussed on the factors affecting online learning satisfaction and found four key themes that included three headings related to the students' supports, such as online instructors, online platforms, and online instructional design, and only one heading on the online learners.

Instructional Support

The word "instructional support" refers to clear instruction, relevant resources, explanation of students' misunderstandings, and constructive critique of their work and performance. Instructors use dialogues and course structures to motivate students to learn and master course materials. Mullen and Tallent-Runnels (2006) found that academic and affective support improved online course satisfaction and learning outcomes. Ertesvg & Havik (2021) and Andrew et al. (2021) showed that teachers' instructional support improves goal-setting and online learning satisfaction. As a result, the following hypothesis is being developed and tested: H1: Instructional support significantly affects online learning satisfaction.

Technical Support

Technical help includes assistance with technical issues that students may encounter in online and hybrid courses. Technology is increasingly being employed in classes, whether they are online or hybrid. The key aspect that adds to hurdles and impacts student happiness in online learning contexts, according to Song, Singleton, Hill, and Koh (2004) and Nawaz and Khan (2012), is technological challenges. Students who were comfortable with using online learning technologies saw far less hurdles to online learning than students who were not, according to Muilenburg and Berge (2005). As a result, instructors must ensure that students are comfortable utilizing online resources and that any technological issues are rectified. As a result, the following hypothesis is being developed and tested:

H2: Technical support significantly affects online learning satisfaction.

Peer Support

Peer assistance involves students helping one other with academic or extracurricular issues. Socialization and peer support are essential in learning situations (Anto & Coenders, 2019). Collaborative projects and social interaction make students more involved in helping others and create a learning community. Online students may feel lonely due to a loss of social connection, therefore peer support is vital (Muilenburg & Berge, 2005). Peer support comes from group projects, peer teaching, tutoring, and facilitation. Students can support each other, answer questions, and form a course study group. As a result, the following hypothesis is being developed and tested:

H3: Peer support significantly affects online learning satisfaction.

Methodology

The respondents were undergraduate students at a public university in Malaysia. Total population was 2,597 students and the determination for the sample size of this study was based on the sample size selection proposal by Krejcie and Morgan (1970), in which a population of 2,600 should have a sample size of 335. The close-ended questionnaire in the Google Form was sent to 400 students at the faculty via emails and WhatsApp application. In total, 357 students managed to completely answered all the questions, giving a 89% usable response rate. The collected data were analyzed using Partial Least Squares (PLS) structural equation modelling using the SmartPLS software version 3.3.3.

The variables under study were measured with a five-point Likert Scale ranged from 1 to 5 in which “1” indicated strongly disagree and “5” indicated strongly agree. The details of the measurement are as follows:

Table 1: Details of Measurement Items

| Variable | Sources | Measurement items |
|------------------------------|---|-------------------|
| Online Learning Satisfaction | Shin (2002) and Baldassarrae et al., (2018) | 5 |
| Instructional support | Ertesvag & Havik, (2021) | 11 |
| Peer Support | Anto & Coenders (2019) | 5 |
| Technical Support | Nawaz and Khan (2012) | 5 |

Data Analysis

Respondent Profiles

Out of the total respondents, female dominates the number with more than half (75.4%). Majority of the respondents are in 21-24 age range comprising 61.9% of them. The respondents originate from 14 states in Malaysia with the highest percentage are from Selangor (37.5%). Their academic profiles show that majority are undertaking Bachelor of Accountancy (55.5%), with majority having good academic performance based on their CGPA. The internet connection experienced by the respondents is hugely in the range from moderate to excellent comprising of 95% of them. Majority of them have 1-2 years prior e-learning experience (91.9%), with 84.5% of them having an intermediate level computer skill.

Measurement Model

The assessment of the measurement model followed the steps recommended by Hair, Hult, Ringle & Sarstedt (2022). The measurement model, also known as the outer model, allows for the evaluation of reliability and validity of the items and constructs. Table 2 shows the composite reliability (CR) and average variance extracted (AVE) for the measurement model. After deleting items with factor loading less than 0.5, all constructs have achieved the minimum threshold for CR and AVE of above 0.7 and 0.5 respectively. Hence, all constructs are considered as strongly reliable and valid.

Table 2: Construct Reliability and Convergent Validity

| | Composite reliability (CR) | Average variance extracted (AVE) |
|------------------------------|-------------------------------|-------------------------------------|
| Online Learning satisfaction | 0.949 | 0.79 |
| Instructional Support | 0.938 | 0.581 |
| Technical Support | 0.912 | 0.775 |
| Peer Support | 0.881 | 0.652 |

As shown in Table 3, the discriminant validity is achieved when the items dedicatedly measure a concept of construct without potential overlap. The heterotrait-monotrait ratio (HTMT) shows that there is no correlation between the constructs since all the ratios are lower than 0.85.

Table 3: Discriminant Validity (HTMT)

| | Online Learning satisfaction | Instructional Support | Technical Support | Peer Support |
|------------------------------|------------------------------|-----------------------|-------------------|--------------|
| Online Learning satisfaction | - | | | |
| Instructional Support | 0.516 | - | | |
| Technical Support | 0.477 | 0.589 | - | |
| Peer Support | 0.65 | 0.733 | 0.643 | - |

The model has also shown a considerably acceptable R^2 of 40.2% and 38.7% for the initial model and modified model respectively, indicating that the variance in the endogenous variable is explained by the exogenous variables. Once all criteria for the measurement model have been

met, it demonstrates that the model has achieved satisfactory reliability and validity requirements. Having established a reliable and valid model, then, the next step is to assess the structural model that would provide the evidence for the hypotheses testing.

Structural Model

The structural model, which is also called the inner model, reflects the relationships between the latent variables (Hair et al., 2022). Upon completing the assessment regarding validity and reliability of the measurement model, the structural model is applied in order to test the relationship between the constructs (endogenous and exogenous variables).

Table 4 presents the variance inflation factor (VIF) values of all the exogenous constructs in the structural model. The results indicate that VIF values are below the recommended threshold value of 5.0 but exceed 0.2, indicating there are no significant levels of collinearity among the exogenous constructs. Hence, all constructs are good to be maintained as they are in the model.

Table 4: Collinearity Statistics

| | VIF |
|---|-------|
| Instructional Support -> Online Learning satisfaction | 1.84 |
| Technical Support -> Online Learning satisfaction | 1.522 |
| Peer Support -> Online Learning satisfaction | 1.846 |

Based on Table 5, the relationship between the exogenous and endogenous constructs shows significant results for all hypotheses, hence supporting H1, H2 and H3. All the significant relationships also exhibit confidence intervals with a homogenous sign (2.5% and 97.5%), indicating that the value of zero does not fall within this interval, which further confirms the significant relationships between the variables.

Table 5: Path Coefficients

| | Original sample (O) | Sample mean (M) | Standard deviation (STDEV) | P values | Confidence Interval | |
|---|---------------------|-----------------|----------------------------|----------|---------------------|--------|
| | | | | | 2.50% | 97.50% |
| Instructional Support -> Online Learning satisfaction | 0.163 | 0.166 | 0.057 | 0.004* | 0.053 | 0.278 |
| Technical Support -> Online Learning satisfaction | 0.129 | 0.125 | 0.058 | 0.027* | 0.008 | 0.236 |
| Peer Support -> Online Learning satisfaction | 0.421 | 0.423 | 0.063 | 0.000* | 0.296 | 0.545 |

Note:

^a β path coefficient

* Significant at 5% $p < 0.05$

Discussion of Findings

This study found that students felt online learning can boost their study interest and help them reach study goals. The analysis shows that instructional support, technical help, and peer support increase student satisfaction in online learning, supporting H1, H2, and H3. Empirically, in line with the previous researches by Ertesvåg & Havik (2021), Andrew et al. (2021), and Mullen and Tallent-Runnels (2006), this study also revealed that instructional support positively impacts student satisfaction in online courses. The respondents agreed that the lecturer/instructor delivers clear information and useful assignment feedback, which explains these findings. Online instructors/lecturers also claimed to actively encourage conversation and respond to student inquiries quickly. For the technical support, the results of this current study corroborate Song et al. (2004) and Nawaz and Khan (2012). Even though the faculty may struggle to transition from face-to-face to online teaching and learning during the COVID-19 epidemic, it's reassuring to know that students claimed that they are content with the technical help they received. Finally, the findings of this study also supported Anto and Coenders (2019) and Muilenburg and Berge (2005), who found the significant positive influences of the peer support on the online course satisfaction. From the analysis, most students appreciated online chats with colleagues and benefited from peer connection. Students often helped one other during online class sessions.

Conclusions

This study explored how instructional, peer, and technical assistance affected student satisfaction with learning outcomes in Malaysia during the COVID-19 epidemic. The study indicated that all variables strongly affected student online learning satisfaction. This online learning satisfaction research found that lecturers/instructors boost student satisfaction by providing comprehensive learning materials, assignments, and a conducive online learning environment. In addition, the government should increase internet access, give free internet quotas for lecturers and students, and prepare for new technology like 5G internet connections that can be used anywhere and anytime. This study verifies previous studies, yet it has several drawbacks. The first limitation is that this study is in a poor nation. Further research should examine the relationship between developing and developed nations for further insight. Because wealthier countries are more exposed to new technologies, they may view online learning differently. Second, this study adopts a quantitative technique and survey data collecting, which may limit respondents' expression of other elements affecting online distance learning satisfaction. Thus, future studies could use mixed-method or qualitative methods to allow respondents to freely express their ideas on the topic.

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DETERMINATION OF THE MICROBIOLOGICAL QUALITY AND ACCEPTANCE OF SELECTED IRRADIATED FERMENTED FOOD DURING STORAGE

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Abstract: For developing countries, safe shelf-stable food without refrigeration would offer advantages. Gamma ray, an ionizing radiation is known to be a safe technology for treating food products in extending their shelf-life. Studies were carried out to overcome arisen problems of the safe shelf-stable food and to evaluate the suitability of irradiation in preserving local fermented mushrooms (*Pekasam Cendawan*) and local fermented cabbages. Generally, local fermented mushroom can be kept in room temperature and under chilled condition only for one and three days respectively. Similarly, local fermented cabbages require chilled condition for storage to avoid the packages bloated upon displayed and storage. Fresh packed fermented products were obtained from local producers and irradiated at doses of 2.0 kGy, 5.0 kGy and 10 kGy, using ⁶⁰Co gamma irradiation source at MINTec-Sinagama. The irradiated and non-irradiated samples were displayed at room temperature storage periods for 2 weeks, 1 month, 3 months and 6 months. Microbiological analysis was carried out to determine status of bacteria (Total Plate Count) and fungi counts. The results were expressed as colony forming units per gram (cfu/g). Colour changes of the products were recorded using Colorimeter (Minolta) for lightness (L), redness (a) and yellowness (b) values. Acceptability of the irradiated fermented products were determined through sensory evaluation by using 30 members (male and female) of untrained panellists. The fungal and microbial counts in both samples irradiated at 5 and 10 kGy were more lowered than samples irradiated at 2 kGy. After storage at 3 months, the fungal and microbial counts were increased in the both control samples of fermented mushrooms and cabbages but maintained low in both irradiated samples. The control samples of fermented mushrooms (not irradiated) were spoiled after displayed one day in room temperature and after chilled for 3 months. Both irradiated samples at 2 kGy and 5 kGy were more accepted in sensory evaluation especially the texture and taste and no significant changes ($P < 0.05$) in lightness, redness, and redness of fermented cabbage samples during 3 months storage. However, fermented mushroom samples irradiated at 5 kGy become darker after 3 months storage. Irradiation reduced the bloatness in the packaged fermented cabbages by reducing the count of bacteria in the products. These results showed the ability gamma irradiation for decontamination of selected fermented food and reliable process for food storage in commercial industries.

Keywords: Gamma, Irradiation, Mushroom, Microbial, Storage, Fermentation

Introduction

Food safety and food security are important for population in the world. In developing countries, safe shelf-stable food without refrigeration would offer advantages in storage purposes. Irradiation offers a potential effort to enhance microbiological safety and quality of food through shelf-life extension. The benefits of irradiation as a sanitary treatment of many types of food are well known, some of which are applied commercially in several countries. Gamma irradiation technology has positive effects in destroying pathogen microorganisms and improving safety shelf stability of food products without compromising the nutritional or sensory quality. The technique is utilised and found to be gradually increase worldwide (Ahn and Nam, 2004; Oluwakemi et al., 2018).

Various raw materials such as vegetables and animal origin are subjected to lactic acid fermentation which yields food products with high nutritional and dietary value. Fermented products are highly popular in Asian and African countries as the basic ingredients of the daily diet and lactic fermentation is a simple and often the only method for preservation of fruits and vegetables (Rhee et al., 2011; Tamang, 2012). Fermented vegetable such as cabbage has an important role in diet and nutrition and has become-popular throughout the world. However, it has a very short shelf life storage due to microbiological and enzymatic activities during the storage period. The activities resulted deterioration of quality and forming a sour and bitter taste, off-order and softening (Cheigh and Park, 1994; Songet al., 2004). In many regions of the world, the process of lactic fermentation is also traditionally used to preserve fruiting bodies of edible mushrooms. Mushrooms are appreciated for their organoleptic qualities as well as the presence of many different bioactive substances exhibiting healing and health-promoting properties. (Jabłońska-Ryś et al. 2019). Edible mushrooms have a short shelf life storage due to rapid post-harvest changes. Therefore, lactic acid fermentation of wild and cultivated mushrooms is a cheap and efficient method of preservation. This method is in domestic use in Eastern Europe and in Asia, but only a limited number of studies in this field are known (Jabłońska-Ryś et al. 2016). Generally, local fermented mushroom (Pekasam cendawan) can be kept in room temperature and under chilled condition only for one and three days respectively. Local fermented cabbages require chilled condition for its storage to avoid the packages becoming bloated with CO² gas released upon displayed and storage period.

Therefore, inactivation of fermentative microorganisms is essential for the preparation of shelf stable food. Studies were carried out to overcome arisen problems of the safe shelf-stable food and to evaluate the suitability of irradiation in preserving local fermented mushrooms (Pekasam Cendawan) and local fermented cabbages.

A few problems faced by the industries in producing these fermented products are such as:

- 1) preservation using high temperature such as retort or canning technology will destroy the morphology and taste of the products.
- 2) packaging in cans, bottles and jars are heavy and need extra care during displaying and transportation.
- 3) these products must be kept in refrigerator when displayed and easily deteriorated when they left in room temperature for a day. It is very convenient if these products can be displayed on shelf at room temperature.
- 4) high cost in transportation to the other places since chilling facilities are needed.

Materials and Methods

Fresh packed fermented products were obtained from local producers and irradiated at different doses of 2 kGy, 5 kGy and 10 kGy, using ⁶⁰Co gamma irradiation at MINTEC-Sinagama, Malaysian Nuclear Agency. Until irradiation was over, non-irradiated samples (control) were kept in refrigerator. The irradiated and non-irradiated samples were ~~displayed~~ kept at room temperature for ~~storage period of~~ 3 months.

Samples (25g) in duplicates from the irradiated and their corresponding non-irradiated control batches were aseptically homogenized for 1 min with 225 ml sterile saline in a Stomacher (Seward Medical, UK). Appropriate serial dilutions of the homogenate were carried out. Total plate count by pour plate method, was determined using Plate Count Agar incubated at 30°C for 48 hours and Potato Dextrose Agar for molds (incubated at 30°C for 5 days). The results were expressed as colony forming units per gram (cfu/g).

Colour changes of the products were recorded using Colorimeter (Minolta) with L, a, b values i.e. Lightness (L), redness (a) and yellowness (b). Acceptability of the irradiated fermented products were determined through sensory evaluation using 30 members (male and female) of untrained panellists. A 5-point hedonic rating scale was used with 5 points as the most acceptable and 1 point as the most unacceptable. The attributes evaluated were colour, aroma, shape, texture, taste, chewiness, juiciness and overall acceptance. Statistical analysis using ANOVA test and comparisons were made by Duncan's multiple range tests.

Results and Discussion

Irradiation at 2 kGy reduced the fungal and microbial loads in irradiated local fermented cabbages (local kimchi) compared to the control samples (not irradiated). The fungal and microbial loads in samples irradiated at 5 and 10 kGy were more lowered than samples irradiated at 2kGy (Table 1 and 2). After storage at 3 months, the fungal and microbial loads were increased in the control samples but maintained low in samples irradiated at 2, 5 and 10 kGy.

Table 1: The number of fungal colonies in fermented cabbages irradiated at different doses and storage time.

| Irradiation Dose (kGy) | Fungal count (cfu/g) | |
|-------------------------------|-----------------------|-----------------------|
| | 0 month | 3 months |
| 0 (non-irradiated/control) | 2.4 x 10 ³ | 3.6 x 10 ³ |
| 2 | 5.4 x 10 ² | 7.4 x 10 ² |
| 5 | 3.2 x 10 ² | 4.6 x 10 ² |
| 10 | 6.4 x 10 ¹ | 8.1 x 10 ¹ |

Table 2: The number of microbial colonies in fermented cabbages irradiated at different doses and storage time.

| Irradiation Dose (kGy) | Microbial count (cfu/g) | |
|------------------------|-------------------------|-------------------|
| | 0 month | 3 months |
| 0 (non- irradiated) | 1.6×10^3 | 2.5×10^3 |
| 2 | 7.3×10^2 | 9.2×10^2 |
| 5 | 5.6×10^2 | 7.4×10^2 |
| 10 | 5.0×10^1 | 6.1×10^1 |

There were significant changes in the morphology of local fermented cabbages (Local Kimchi) gamma irradiated at 2, 5 and 10 kGy. Samples irradiated at 2 and 5 kGy were accepted for sensory evaluation especially the texture and taste (Figure 1). Samples irradiated at 10 kGy were found changed totally in texture and taste acceptance. However, there were no significant changes ($P < 0.05$) in lightness and redness for all samples after 3 months storage (Figure 2).

The control samples were found bloated as gases were generated on samples stored at room temperature. Some of fermented products generate gases during display and storage and the packaging became bloated and burst at certain time. This is due to the growth of lactic acid bacteria in the fermented products keep increasing and emitting gases (Hong-sun et al., 2003). In this study, gamma irradiation at 2, 5 and 10 kGy prevented the bloat in the packaging of fermented products by reducing the count of microbes in the products. Gamma radiation can be applied to improve the quality and shelf-life and to control the ripening process of kimchi products (Kim, Yook, & Byun, 2004).

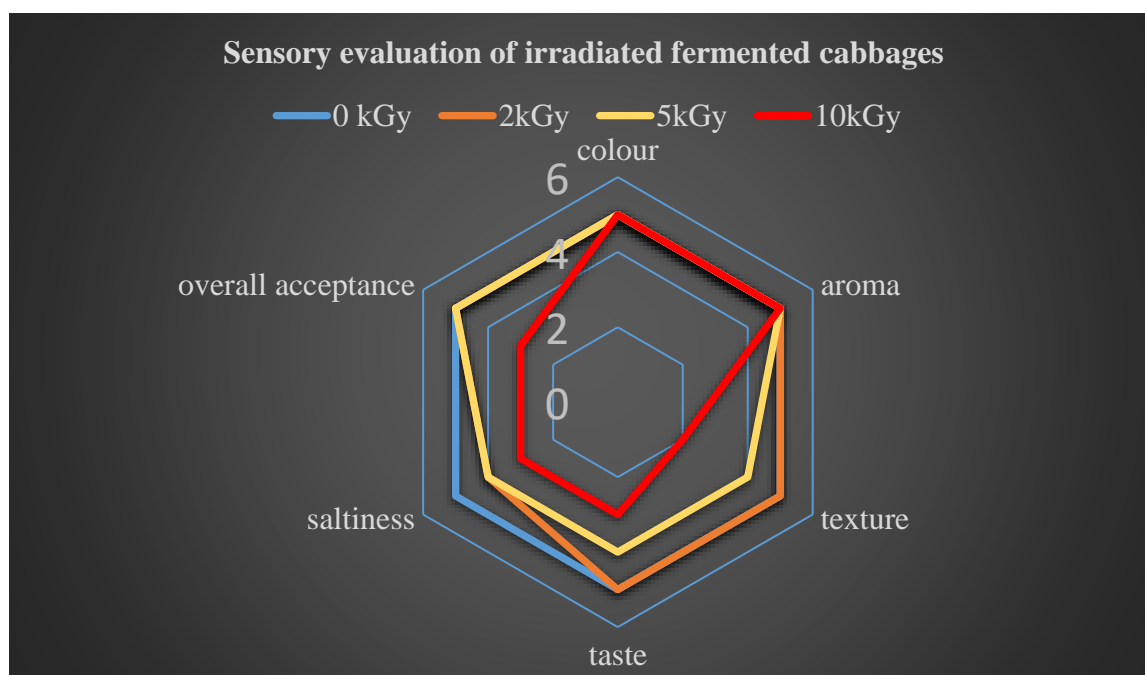


Figure 1: Sensory evaluation of irradiated fermented cabbages samples after 3 months storage. Samples irradiated at 10 kGy were the most unacceptable and had lower values for texture, taste, saltiness and overall acceptance attributes compared to other samples.

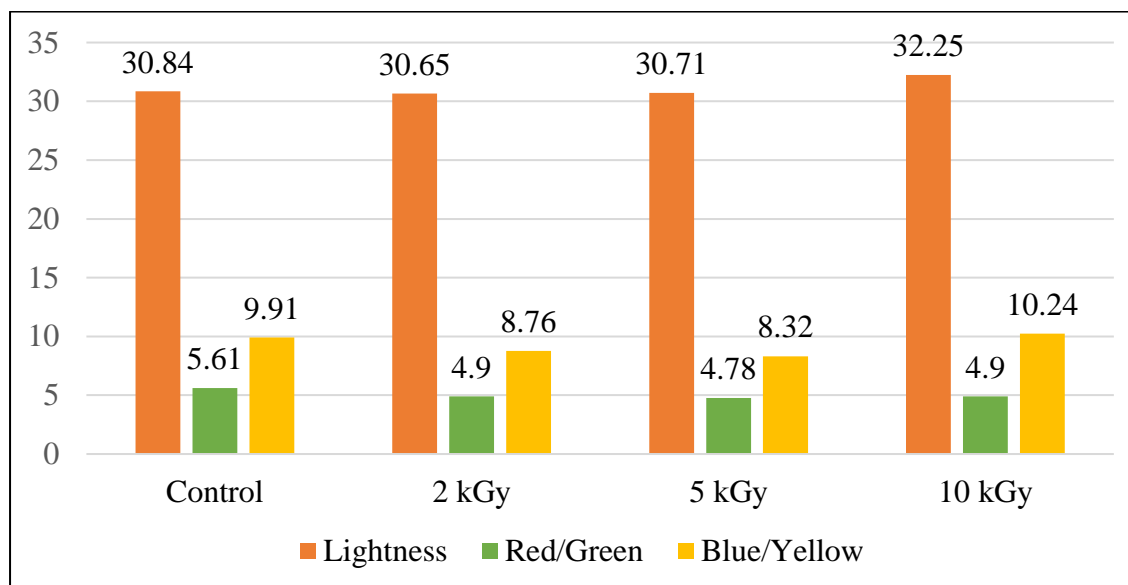


Figure 2: Lightness, redness and yellowness values of fermented cabbages samples after 3 months storage.

Irradiation at 5 kGy reduced microbial loads in irradiated local fermented mushroom (Pekasam cendawan) samples compared to the control samples (not irradiated) and maintained low after 3 months storage (Table 3 and 4). The control samples (not irradiated) were spoiled after displayed only a day at room temperature with microbial loads increased. However, the control samples spoiled after kept in chilled temperature for 3 months.

Table 3: The number of fungal colonies in irradiated local fermented mushroom (Pekasam cendawan) at different doses and storage time.

| Irradiation Dose (kGy) | Fungal count (cfu/g) 0 month | Fungal count (cfu/g) 3 months |
|------------------------|------------------------------|-------------------------------|
| 0 (non- irradiated) | 2.7×10^3 | 3.8×10^5 |
| 2 | 4.3×10^2 | 9.2×10^3 |
| 5 | 1.1×10^2 | 1.2×10^3 |
| 10 | 1.3×10^2 | 1.5×10^3 |

Table 4: The number of microbial colonies in irradiated local fermented mushroom (Pekasam cendawan) at different doses and storage time.

| Irradiation Dose (kGy) | Microbial count (cfu/g) 0 month | Microbial count (cfu/g) 3 months |
|------------------------|---------------------------------|----------------------------------|
| 0 (non- irradiated) | 3.6×10^3 | 8.9×10^5 |
| 2 | 2.8×10^2 | 7.4×10^3 |

| | | |
|----|-------------------|-------------------|
| 5 | 2.1×10^2 | 1.8×10^3 |
| 10 | 1.1×10^2 | 1.4×10^3 |

There were significant changes in the morphology of control (not irradiated) kept chilled and irradiated local fermented mushroom (Pekasam cendawan) samples after 3 months storage. Control samples were spoiled after displayed and stored one a day in room temperature and cannot proceed for sensory evaluation. Samples irradiated at 2 and 5 kGy were more accepted in sensory evaluation especially the texture and taste. However, samples irradiated at 10 kGy were not acceptable due to changes in texture (soften) and taste (Figure 3). Samples irradiated at 5 and 10 kGy become darker after 3 months storage that showed by the lower values of the lightness recorded (Figure 4).

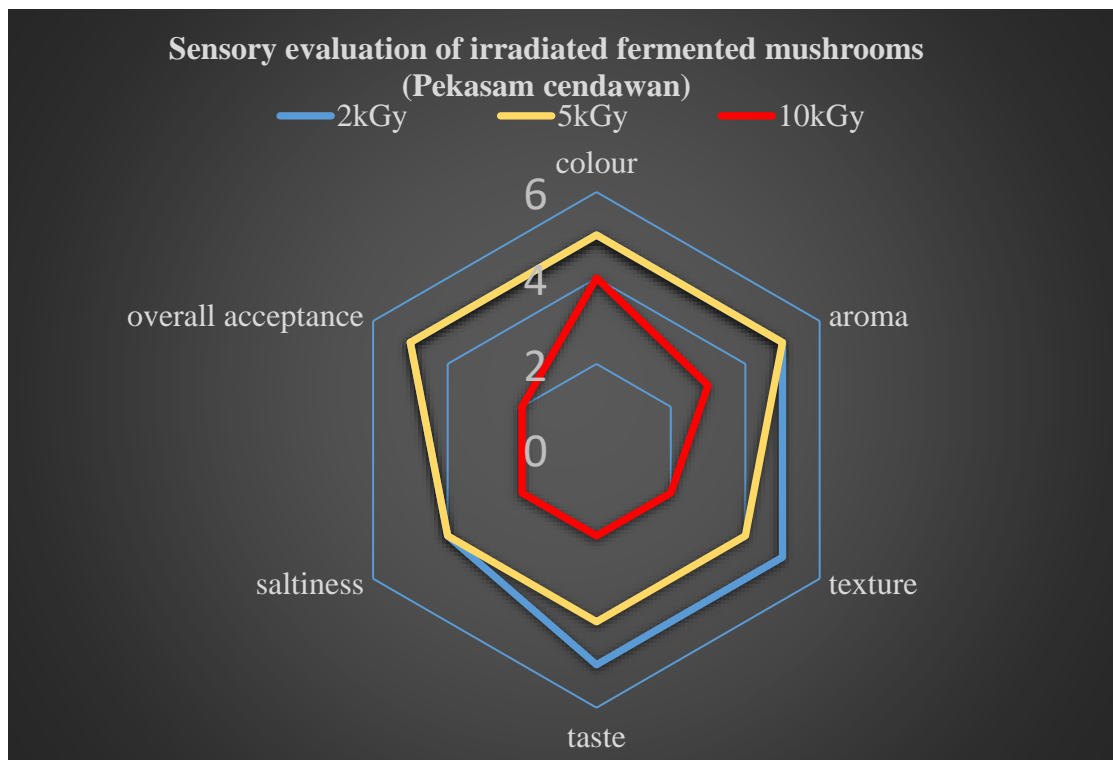


Figure 3: Sensory evaluation of irradiated fermented mushrooms (Pekasam cendawan) samples after 3 months storage. Samples irradiated at 10 kGy were the most unacceptable and had lower values for all attributes compared to other samples.

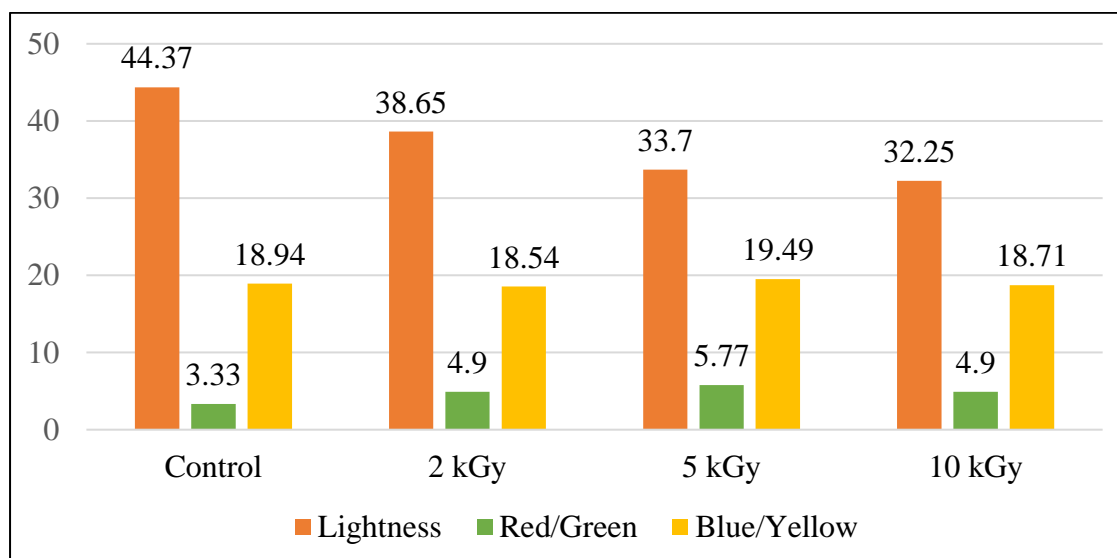


Figure 4: Lightness, redness and yellowness values of fermented mushrooms (Pekasam mushrooms) samples after 3 months storage.

Conclusion

Irradiation at 2 and 5 kGy doses was suitable in preserving local fermented mushrooms (Pekasam Cendawan) and local fermented cabbages. Evaluation on these products found to be accepted on both morphology and sensory parameters. These results showed ability of gamma irradiation for decontamination of selected fermented food and found to be reliable process for food storage in commercial industries. Thus, gamma irradiation offers a potential effort to enhance microbiological safety followed by quality of food through shelf-life extension.

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PRIORITISING HEALTH CONCERNS AND ENVIRONMENTAL PROTECTION EQUALLY IN ADDRESSING SPACE DEBRIS FROM OUTER SPACE THROUGH THE PRINCIPLE OF INTEGRATION OF SUSTAINABLE DEVELOPMENT

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Abstract: *The controversy surrounding space debris which have re-entered the Earth's atmosphere and caused environmental contamination has been acknowledged by various subsidiary guidelines to the Guidelines for the Long-term Sustainability of Outer Space Activities. Regrettably, most of the subsidiary guidelines barely refer to health concerns explicitly. While certain forms of space debris can cause air, water or ground pollution, such as fuel from the fuel tanks of rockets and nuclear-powered reactors powering satellites, the effect on human health has been downplayed. If sustainable development is to be achieved, the inclusion of health concerns from space debris must be emphasised as non-space-faring states are victims of fallen debris that could harm their population. Therefore, the main objective of this research is to assert that environmental contamination and health concerns arising from space debris left on earth from the outcome of outer space activities must be given equal emphasis in international health law. This is a qualitative study that utilises a textual analysis to interpret provisions and relevant paragraphs of selected outer space agreements and soft law documents to identify wording – such as environmental contamination and pollution, health and public health – in order to judge if these documents have adequately addressed the two components of sustainable development. Secondary resources were also consulted. The results show that outer space law has made some strides by embracing sustainable development with an emphasis on environmental contamination and protection from space debris through non-binding soft law documents which complement outer space treaties; however, it has neglected health concerns. It is therefore necessary for the World Health Organization (WHO) to develop international health law concerning outer space to address toxic fuels besides the hazards posed by nuclear reactors powering some satellite.*

Keywords: *Space Debris, International Sustainable Development Law (ISDL), International Health Law*

Introduction

The controversy surrounding space debris which have re-entered the Earth's atmosphere has gained elevated prominence as a cause of environmental contamination in the discussion concerning the long-term sustainability of outer space activities. While it may be true that certain forms of space debris can cause air, water or ground pollution, such as the fuel used for fuel tanks from rockets and nuclear satellites, health concerns have been downplayed. If sustainable development is to be achieved, a wholesome approach must be taken that considers the social development aspect, including the health concerns of space debris. Sustainable

development itself has been defined as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (World Commission on Environment and Development [WCED], 1987, p. 87) and contains three components: environmental protection, economic development and social development. Regrettably, most of the subsidiary guidelines which constitute the Guidelines for the Long-term Sustainability of Outer Space Activities (UNOOSA, 2018) barely refer to health concerns explicitly, although environmental contamination and protection take precedence. Indeed, outer space law has achieved some milestones in the 21st century by starting to embrace sustainable development outright, with considerable emphasis on environmental contamination and protection from space debris, albeit through producing soft law documents. However, it has neglected to address most health concerns associated with this menace.

Space debris can pollute outer space when collisions among satellites occurs, or old broken-down satellites continue to orbit earth or are deliberately shot down and broken into fragments. For the purpose of this research, the emphasis is on space debris produced during the launch of a rocket or spacecraft or those that fall to earth from outer space, causing environmental contamination and health concerns. This research asserts that emphasis will have to be given to both environmental contamination and health concerns arising from such production of space debris as these are equally pressing matters that can ill afford to be ignored. However, international bodies and states involved with discussions about the sustainability of outer space have not explicitly referred to health concerns in the subsidiary guidelines which form the document Guidelines for the Long-term Sustainability of Outer Space Activities (UNOOSA, 2018). Therefore, the main objective of this research is to assert that environmental contamination and health concerns arising from space debris left on earth following outer space activities must be given equal emphasis in international health law especially. Furthermore, there is an opportunity to develop international health law in the context of outer space by addressing health concerns as little attention has been given to this grey area in the attainment of sustainable development.

Within international law, a growing body of literature addresses International Sustainable Development Law (ISDL). Segger and Khalfan (2004a, p. 103) define ISDL as an “intersection between the three fields of international economic, environmental and social laws”. ISDL originated as the fulfilment of Principle 27 of the Rio Declaration on Environment and Development of 1992, aiming to promote the further development of international law in the field of sustainable development (“Report of the United Nations”, 1992). This research contends that the principle of integration of ISDL – especially the aim of ensuring the three components of sustainable development are mutually supportive in international law agreements and soft law documents – can be a means of assessing if all three components have been addressed equally in a balanced manner. A more detailed description of the principle of integration is elaborated on later in the paper. The preceding sections of this paper cover the methodology of this study, environmental contamination and health concerns from space debris activities affecting earth, and is followed by an analysis of the outer space law and soft law documents of the relevant international organisations which have addressed environmental contamination and health concerns.

Literature Review

The general scholarly consensus is that the existing five outer space treaties inadequately address environmental pollution from space debris that animates from the pre-launching

process, collisions among satellites and other space objects in outer space itself or the deliberate blasting of old non-functional satellites (Gupta & Agasti, 2022, p. 20; Haroun et al., 2021, p. 65; Pogorzelska, 2013; Popova & Schaus, 2018). The closest reference to environmental contamination from space debris is contained in Article IX of the 1967 Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies (hereinafter Outer Space Treaty 1967) which addresses “harmful contamination” without defining it (Gupta & Agasti, 2022, p. 15; Haroun et al., 2021, p. 65; Pogorzelska, 2013; Popova & Schaus, 2018, p. 6). Even the threshold which can constitute harm remains ambiguous, making it difficult to decipher the meaning of harmful contamination (Haroun et al., 2021, p. 65). As most of these outer space treaties were drafted between the end of the 1960s and early 1970s, when environmental issues were yet to gain prominence, it is unsurprising that environmental matters were explicitly absent from these five outer space treaties (Pogorzelska, 2013; Popova & Schaus, 2018, p. 10). As these five outer space agreements do not refer explicitly to environmental contamination, international efforts have been made over time to produce non-binding guidelines to address space debris environmental contamination and mitigation. However, these are voluntary for most states and lack the force of a binding treaty (Gupta & Agasti, 2022, p. 20). Progress was made in 2007 when the United Nations Committee on Outer Space Affairs (UNOOSA) produced the Space Debris Mitigation Guidelines (UNOOSA, 2010). These provided the meaning of space debris and listed mitigation steps to address this menace, although these were voluntary (Gupta & Agasti, 2022, p. 20).

The next major breakthrough in the development of outer space law came in 2011 when the Working Group on the Long-term Sustainability of Outer Space Activities suggested extending the concept of sustainable development into outer space activities (Pogorzelska, 2013; Pogorzelska, 2015, p. 77). This was reflected in a subsequent document entitled Guidelines on the Long-term Sustainability of Outer Space Activities (UNOOSA, 2018) which contained many subsidiary guidelines, including those covering the treatment of space debris. Although all of these subsidiary guidelines are non-binding soft law documents, the task of the present research is to examine whether they contain adequate reference to sustainable development, environmental contamination, environmental protection, health and public health matters. This is because space debris may not only cause environmental contamination during the pre-launching process or the re-entering stage into the earth’s atmosphere but may also cause harm to human health.

Some researchers have cited the need to utilise principles of international environmental law for application in outer space with the call to embrace sustainable development (Gupta & Agasti, 2022, pp. 21-24; Haroun et al., 2021, p. 67-68; Pogorzelska, 2013; Pogorzelska, 2015, p. 88). They justify the need as follows: although the five outer space treaties have never made direct reference to addressing environmental contamination from outer space activities nor explicitly referred to the need to achieve sustainable development, Article III of the Outer Space Treaty 1967 stresses that other branches of international law should simultaneously be considered (Gupta & Agasti, 2022, p. 21). Some scholars have argued that the following should be applicable to the monitoring of outer space: the precautionary principle; the polluters pay principle (Gupta & Agasti, 2022, p. 21-23; Haroun et al., 2021, p. 67); the need for an environmental impact assessment (EIA) (Haroun et al., 2021, p. 67; Pogorzelska, 2015, p. 80); the principle of equity (Gupta & Agasti, 2022, p. 23; Pogorzelska, 2015, p. 80); the right of states over the sustainable use of their natural resources (Gupta & Agasti, 2022, p. 24); the transboundary harm principle (Haroun et al., 2021, p. 67); common but differentiated

responsibilities (Gupta & Agasti, 2022, p. 24; Pogorzelska, 2015, p. 88); the principle of public participation and, lastly, the principle of integration (Pogorzelska, 2015, p. 80). While these principles bring more clout to monitoring outer space for environmental contamination, thus fulfilling the environmental protection component of sustainable development, attention has yet to be paid to health hazards from space debris that fall within the ambit of international health law.

Indeed, Pogorzelska (2015, p. 80) briefly mentions the principle of integration relevant to uniting the components of sustainable development, namely environmental protection, economic development and social development, when discussing outer space law. However she fails to elaborate on the role that the principle of integration could play in ISDL in bringing different branches of international law together such as international economic law, international environmental law and international social law would play within the realm of outer space. This research stresses the importance of the international social law of ISDL, which covers international health law, as health hazards from space debris is an under-researched area that requires exploration if sustainable development in outer space is truly to be fulfilled. In particular, this research explores the role of the World Health Organization (WHO) in developing international health law in outer space as scant literature currently exists on this matter.

Prabhu (2004, p. 328) suggests that “international health law ought to be on the agenda of all those organizations involved with sustainable development law”. While outer space law has begun to embrace environmental protection with the larger goal of achieving sustainable development, this is arguably incomplete without addressing the social development aspect of health and further developing international health law. Typically, international health law is characterised by soft law documents such as WHO resolutions and guidelines.

Existing scholarly work has referred to the WHO’s definition on health in its Constitution to cover mental well-being, which is relevant for claims for damages in the Convention on International Liability for Damage Caused by Space Objects (hereinafter Space Liability Convention) (Nakamura, 2020, p. 10; Sayed & Li, 2023, p. 1130). Mihajlov (1989, p. 12) also pinpoints the further development of international health law when the 1963 Moscow Treaty Banning Nuclear Weapon Test in the Atmosphere, in Outer Space and Under Water prohibited nuclear testing for being detrimental to human health and the environment. This raises the salient query of whether the consideration of health matters in outer space regarding space debris need only consider the danger of nuclear power usage. This paper’s position is that there are other health hazard issues besides nuclear power usage that have been downplayed and that this research must consider.

More recent discussions on health regarding the WHO in the outer space context focus on beneficial health activities. Several scholars have highlighted the need to consider passengers’ health in light of the publicity of space tourism and the need to mitigate this through risk reduction and response (Harris et al., 2022, p. 995). Zannoni (2020, p. 628) highlights the WHO’s involvement in the Space and Global Health initiative, whereby remote sensing in outer space can detect disasters to enable timely health responses, such as the detection of certain diseases, namely malaria, cholera and meningitis. In addition, the WHO’s involvement in outer space activities promotes telemedicine, which involves remote inaccessible places (Zannoni, 2020, p. 628). Although the WHO is involved in several positive activities involving outer space, this research criticises the WHO for failing to address the health aspects of space

debris and publicise the matter to gain worldwide support. Increasingly, non-space faring states are victims of space debris, but no warning has been issued to states about the possible diseases their population could encounter from toxic chemicals from the fuel tanks of rockets falling to earth as a result of the launching process. This is a grey area that requires further exploration, and this research intends to fill the void. Some scholars have assumed that the International Health Regulations 2005 (IHR 2005) are capable of addressing the spread of diseases across state boundaries, which must be a public health emergency of international concern (Freeland & Kuan, 2023, p. 2). Their view is that the IHR 2005 could apply to the pre-launch phase of rockets and satellites being sent into space or the need to report any incident detrimental to public health after the satellite/spacecraft has returned to earth (Freeland & Kuan, 2023, p. 2). To what extent these claims are true is investigated by the present research.

Hence, in providing a solution to the space debris problem, environmental contamination need not only be prioritised to achieve sustainable development. The international community must equally pay attention to the development of international health law in the context of space debris because this is being overlooked and poses a setback to the balanced attainment of sustainable development. Zannoni (2020, p. 631) observes that “the link between space and global health is still in its infancy. We are still at the stage of gathering information, identifying who can do what, and defining competencies and the governance structure for a cooperative platform to be established”. Therefore, this research explores international health law in the context of outer space debris in an attempt to fill this void and enrich outer space and international health law.

Methodology

This study’s epistemological position refers to interpretivism. Interpretivism is known as “[t]he study of social phenomena [requiring] an understanding of the social worlds that people inhabit, which they have already interpreted by the meanings they produce and reproduce as a necessary part of their everyday activities together” (Blaikie, 2004, p. 509). A researcher is required to interpret elements within their study that involve human interest in the context of interpretivism. Various approaches have been connected with interpretivism but the one relevant to this research is hermeneutics.

Hermeneutics concerns the interpretation of texts to illicit meaning (Wernet, 2014, p. 234). Within the domain of law, legal hermeneutics has developed as a science of interpretation regarding the application of legal rules from the foundations of philosophical hermeneutics (Merezhko, 2014, p. 4). The method for interpreting text in legal hermeneutics includes the understanding and interpretation of and reference to both the legal text and context (Merezhko, 2014, p. 4). The applicability of hermeneutics to this research concerns the interpretation of provisions within outer space agreements and paragraphs from soft law documents. Merezhko (2014, p. 8) asserts that legal hermeneutics is applicable to interpreting international treaties, hence its relevance to this study.

This research is qualitative and applies a socio-legal approach. The rationale for adopting a socio-legal approach is that this study is multidisciplinary, impinging into the areas of law and astronomy, and utilises social science methods of analysis such as textual analysis in interpreting provisions of legal documents, and a content analysis. In particular, this study undergoes a legal interpretation of the provisions of these outer space international agreements, namely the 1967 Outer Space Treaty, the Space Liability Convention, and the International

Health Regulations (IHR 2005) through a textual analysis to illicit their meaning. The same applies to the Space Debris Mitigation Guidelines of the Committee on the Peaceful Uses of Outer Space (UNOOSA, 2010), and the subsidiary guidelines forming the basis for the Guidelines for the Long-term Sustainability of Outer Space Activities (UNOOSA, 2018).

These include:

- 1) Guideline A2: Consider a Number of Elements when Developing, Revising or Amending, as Necessary, National Regulatory Frameworks for Outer Space Activities;
- 2) Guideline B1: Provide Updated Contact Information and Share Information on Space Objects and Orbital Events;
- 3) Guideline B9: Take Measures to Address Risks Associated with the Uncontrolled Re-Entry of Space Objects;
- 4) Guideline C4: Raise Awareness of Space Activities;
- 5) Guideline D1: Promote and Support Research into and the Development of Ways to Support Sustainable Exploration and Use of Outer Space; and
- 6) Guideline D2: Investigate and Consider New Measures to Manage the Space Debris Population in the Long Term.

All these outer space law agreements and soft law documents are analysed through a textual analysis to interpret whether they contain any specific wording referring to environmental protection, environment contamination, the environment, health and public health. These terms are chosen because they signify whether components of sustainable development, namely environmental protection and health matters which form part of social development issues, are truly reflected to fully subscribe to sustainable development.

Secondary resources such as books, book chapters, journals, newspaper articles, magazines, conference papers, working papers and other relevant information obtained from the internet are utilised in this study and analysed as themes relevant to the sub-topic sections, via a content analysis.

Environmental Contamination and Health Concerns from Space Debris Activities Affecting Earth

Back in January 1978, the Soviet Union satellite Cosmos 954, designed to monitor the world's oceans and containing a nuclear reactor powered by uranium 235, crashed into the Great Slave Lake area of the Canadian Northern Territories, affecting a place called Yellowknife (Launius, 2014). Thousands of pieces of space debris were scattered more than 100,000 square kilometres northwest of Canada (Launius, 2014). This led to the recovery effort known as Morning Light, whereby Canada was assisted by the United States (US) Department of Energy (DOE) to recover and analyse the impact of debris. Plates, disk rods and other objects with radiation levels from one to 200 roentgens/ hour were recovered ('Operation Morning Light', 2013). A survey of the Great Slave Lake area showed that nuclear materials were widely dispersed from the nuclear reactor core ('Operation Morning Light', 2013). It was concluded that it would take approximately 713 million years for half of the space debris material containing radiation to lose its radioactivity (Launius, 2014). This led President Jimmy Carter, the then US president, to propose a moratorium on the use of nuclear power, but such a permanent ban never occurred (Launius, 2014). It took eight months for the US-Canadian authorities to clean-up contaminated space debris, at a cost of approximately \$14 million (Canadian) (Bowen, 2020). The Soviet Union finally paid approximately \$3 million (Canadian) after pressure from the

Canadians to pay for damages through the invocation of the 1972 Space Liability Convention (Parks, 2009, p.4). The satellite crash affected the indigenous Dené people, who lived in the eastern part of the Great Slave Lake (Dart, 2022). They faced radiation effects with drastically elevated cancer rates (Dart, 2022).

Much earlier in 1964, the US TRANSIT 5BN-3 navigational satellite malfunctioned while its radioisotope thermoelectric generator (RTG), containing 2.2 pounds of plutonium fuel, burned up during re-entry into the earth's atmosphere (Launius, 2014). The New Scientist reported that within a decade of re-entry of a satellite that uses nuclear power, approximately 5% of its plutonium-238 would remain in the atmosphere (Launius, 2014). This illustrates a case of environmental pollution in the earth's atmosphere.

In another US space mission involving Galileo in 1989, data from the DOE in the US indicated that any space launch failure could result in 202 cancer deaths. (Launius, 2014). Regarding the likelihood of an accident, this would likely occur during a failed launching episode whereby the re-entry of the spacecraft for failing to reach orbit could cause a very low probability maximum case of 9.8 cancer fatalities over a 70-year period among a population of 83,000 persons. This would lead to an estimate of 16,000 cancer fatalities within the same period (Launius, 2014). Activists filed a lawsuit against the National Aeronautics and Space Administration (NASA) prior to Galileo's launch by indicating that the RTG of the spacecraft would pose a risk to residents because of the potential carcinogenic effect of plutonium-238 should a widespread ground contamination accident occur, causing environmental pollution and affecting human bones and lungs (Launius, 2014). Ultimately, the lawsuit at the US District Court in the District of Columbia ruled in favour of NASA as it had fulfilled its requirement to conduct an environmental impact assessment in line with the US National Environmental Protection Act (NEPA) (Launius, 2014). This enabled NASA to launch Galileo, exploring Jupiter and obtaining vital scientific data about its geography. As a nuclear-powered satellite may cause environmental contamination and various health hazards when an accident occurs, the US has considered replacing RTGs in a spacecraft with solar arrays to make it more environmentally friendly in the face of public opposition.

On 31 July 2022, parts of Sarawak in Malaysia were hit with space debris from the remnants of China's Long March 5B rocket, which was bringing the Wentian laboratory into orbit to be attached to the Tianhe main module ('Debris from Chinese', 2022). The debris were remnants from the launcher and booster. At Goodwill Garden, Sepupok near Batu Niah, Sarawak metal fragments were embedded around one meter deep in a compound of a house (Toyat, 2022). Malaysia's Hazmat team, its Fire and Rescue Department and representatives from the Ministry of Science, Technology and Innovation (MOSTI) analysed metal fragments on site for fear they may contain radioactive materials that endangered public health (Toyat, 2022). At the Kampung Hulu Nyalau, Samalaju, Sarawak, a horseshoe object four inches deep was found and inspected by the Fire and Rescue Department Hazmat team and the Atomic Energy Licensing Board (AELB) branch in Bintulu (Jay, 2022a, p. 2). The space debris found at Batu Niah and Nyalau, Bintulu in Sarawak state were flown to Kuala Lumpur International Airport and transported to the Chemistry Department for further analysis (Adnan, 2022). A third case involved a grey coloured object measuring 2.3 meters long, 1 meter wide and 5-millimeters-thick, which was found at an oil palm plantation in Pantu, Sri Aman in Sarawak (Jay, 2022b). Again, the Kuching AELB branch and Chemistry Department personnel were called to inspect the object to ascertain if it was radioactive, but it was deemed safe (Jay, 2022b). A piece of space debris measuring two inches wide and three inches long was also found lodged in the

wooden beams of a house rooftop at Rumah Panjang Renyam in Sungai Asan, Sibu in Sarawak. MOSTI confirmed that it was free from radioactivity and did not emit radiation (Leong, 2022). Since the above mentioned incident of the Cosmos 954, Malaysia has taken a more cautious approach to China's space debris from its Long March 5B rocket for fear that any nuclear material would emit harmful radiation to the public, who were advised not to touch any space debris but to call the authorities first. As China's space debris fell into Malaysia's territory, the Malaysian authorities considered legal action against China based on international outer space treaties (Pillai, 2022). Moreover, China failed in advance to notify them of the exact coordinates its space debris from the Long March 5B rocket would fall to earth, despite their obligation to warn other states in advance ('Debris from Chinese', 2022). Space debris from this Chinese rocket also fell in parts of Kalimantan, Indonesia and was anticipated to fall within the waters southeast of the Philippines city of Puerto Princesa on the island of Palawan ('Debris from Chinese', 2022; Rosa-Aquino & McFall-Johnson, 2022).

In another satellite case known as USA 193, used for spying, the satellite lost power and became uncontrollable upon its launch in 2006, its hydrazine fuel tank still intact (Kelley & Johnson, 2011, p. 2; Parks, 2009). The USS Lake Erie navy ship, situated near Hawaii, that was armed with a SM-3 missile, managed to shoot down the satellite in February 2008, piercing its titanium fuel tank (Burns & Baldor, 2008, p. 2). Had the US not destroyed the satellite, its 1,000 pound full hydrazine full tank would have posed a human health hazard if it had landed in a populated area (Burns & Baldor, 2008, p. 1). The mission to destroy the fuel tank was successful as there was a vapour cloud from its explosion. The US organised hazardous material teams known as Burnt Frost in case any space debris from the explosion fell to earth and polluted US areas or nearby countries ('Navy says missile', 2008, pp. 3-4). The US Centers for Disease Control and Prevention of the US also issued a health bulletin alerting health officials and clinicians about the health effects associated with hydrazine in case any communities were affected by falling hazardous space debris ('Navy says missile', 2008, p. 4). In one study involving workers responsible for filling fuel tanks with hydrazine for rockets, it was found they could be vulnerable to hemato and lymphopoietic cancer, and to bladder and kidney cancer mortality (Ritz et al, 1999). Moreover, they may also be vulnerable to lung cancer (Ritz et al, 1999). Another study found that hydrazine can penetrate the systemic blood circulation and cause soil contamination (Trofimov et al, 2020, pp. 21-22). Therefore, it is necessary to develop more environmentally friendly rocket fuel to avoid polluting the environment and endangering human health. Such was the case of the Indian Space Research Organization (ISRO), which researched an environmentally friendly propellant to power its satellite and spacecrafts with hopes of introducing it in the future (Nandakumar, 2018).

The same publicity engulfed the launch of Elon Musk's Space X and Jeff Bezos's Blue Origin rockets in 2022, when toxic fumes were emitted from the rockets' launch. These fumes can endanger humans nearby the rocket launcher and also the surrounding environment (Jefferson, 2022). Space X claimed to utilise an environmentally friendly fuel called RP-1 (Jefferson, 2022). The legitimacy of this claim, however, has yet to be established.

Reports also came from the taiga, where the forests meet between the border of Russia and Kazakhstan and near to the Baikonour cosmodrome, where discarded fuel tanks containing hydrazine (UDMH) from Russia's launched rocket have most frequently been found (Vassilieva, 2012, pp.1-2). Hydrazine purportedly penetrated the soil and contaminated the water at nearby villages to the Baikonour cosmodrome (Vassilieva, 2012, p. 2), where villagers reportedly also suffered from anaemia, allergies, sore throat and skin diseases they attributed

to the hazardous rocket fuel (Vassilieva, 2012, p. 2). However, limited studies have shown a direct connection between toxic fuel and the said diseases. The rate of cancer among villagers at Karakoksha was also high, making the villagers wonder whether this was attributed to toxic rocket fuel (Vassilieva, 2012, p. 2).

In October 2017, a three-stage rocket was supposed to be launched at the Plesetsk Cosmodrome using Russia's old satellite launcher Soviet SS-9 to send the European Space Agency's (ESA's) Sentinel-5P satellite produced by the Netherlands into orbit (Sevunts, 2017). One of the stages of the rocket was to be shed at the Barents Sea, north of Norway, while for the second stage it would be shed at the North Water Polynya in Baffin Bay, an Arctic habitat near Canada's Ellesmere Island and Greenland (Sevunts, 2017). The first stage of rocket fuel would carry seven tonnes of hydrazine and the second stage one tonne (Sevunts, 2017). Since 2002, Russia already had a history of shedding its rocket stages containing hydrazine fuel into the Barents Sea and the North Water Polynya, doing so on 10 occasions (Sevunts, 2017). As the Inuit communities around the Barents Sea and the North Water Polynya rely on marine wildlife for their nutrition and survival, spilling hydrazine fuel would not only kill marine life but also contaminate their food source. A researcher from the Canada Research Chair in Global Politics and International Law at the University of British Columbia recommended that health surveys be conducted among Norwegian fishermen fishing around the Barents Sea and the Inuit living near North Water Polynya to identify if hydrazine-related diseases are present among these population (Sevunts, 2017). Water and air samples near these two areas were also taken to examine if any environmental contamination as the result of hydrazine pollution occurred (Sevunts, 2017). In this regard, the ESA and the Netherlands have been urged to use a newer launch vehicle and non-toxic propellant to save the environment and reduce health hazards, even though this may be more costly (Sevunts, 2017).

Another space-faring state, China, has also been guilty of requiring its farmers from Guangxi to pick up space debris in remote places, exposing them to the toxic fuel hydrazine when China launched its Long March rocket (Watts, 2010). Supposedly, hydrazine can cause respiratory problems and nausea at low levels, can be absorbed by the skin, can damage the liver and reproductive organs, and can cause tumours (Watts, 2010).

Thus, in addition to nuclear reactors to power satellites, rocket fuel such as hydrazine and its fuel tank have been recognised as causing environmental contamination and various health hazards, as described in this research. Therefore, the extent to which international law governing outer space has adequately addressed these issues as well as international health law is examined in separate sections of this paper.

The Principle of Integration

The principle of integration in the New Delhi Declaration of Principles of International Law Relating to Sustainable Development (hereinafter Delhi Declaration; International Law Association [ILA], 2002) is the enabler that seeks to fuse the three separate areas of environmental protection, economic development and social development in line with the definition of ISDL. Jodoin (2005, p. 3) asserts that the principle of integration is "the most essential of all seven principles of sustainable development as identified by the [ILA]." It serves as "a conceptual framework for 'integrated thinking' in international law relating to sustainable development, which can guide consideration of other principles", and is the most important principle of the Delhi Declaration (Jodoin, 2005, p. 4). Furthermore, the principle of integration

“influences and informs the elaboration, interpretation and application of other principles of sustainable development law” (Jodoin, 2005, p. 4). As self-evident, “integration” seeks to reconcile the three separate components of sustainable development with one another rather than letting them function separately.

The notion of reconciling separate areas of a particular discipline has its own history. Article 1 of the Charter of the United Nations (1945) (hereinafter UN Charter) stresses the need “[t]o achieve international cooperation in solving international problems of an economic, social, cultural, or humanitarian character”. Indeed, it is viewed that the United Nations (UN) is the “centre for harmoni[s]ing the actions of nations in the attainment of these common ends”. In addition to the UN Charter, Article 31(3) (c) of the Vienna Convention on the Law of Treaties (VCLT, 1969) also emphasises that a treaty should be interpreted in light “of any relevant rules of international law applicable between the [P]arties.” This requires that varying branches of international law, whether international environmental law, international trade law or international social law, should not function separately but rather reinforce one another rather than being “self-contained islands of international law, de-linked from other branches of international law” (Pauwelyn, 2004, pp. 903-927).

Each branch of international law within the scope of ISDL encompasses its own issues. The realm of international economic law covers the issues of trade in goods and services, economic integration, financial law, development law, international investment law, intellectual property and business regulation (Segger & Khalfan, 2004b, pp. 53-54). Relevant international organisations for international economic law include the World Trade Organization (WTO), Organization of Economic Cooperation and Development (OECD), International Monetary Fund (IMF), UN Conference on Trade and Development (UNCTAD) and the World Bank (Segger & Khalfan, 2004b, pp. 53-54).

Furthermore, international social law is another subsidiary of law that constitutes ISDL. International social law encompasses international human rights law, international humanitarian law, the law of armed conflict, international labour law, international health law, gender, population, food security, and social development (Segger & Khalfan, 2004b, p. 23). The final element of ISDL refers to international environmental law, governing various issues extending to biodiversity, the ozone layer, hazardous waste, fisheries, biosafety, climate change, oil pollution, and wildlife and other issues.

While ISDL connects international economic law, international social law and international environmental law, one criticism is that ISDL should not be solely restricted to these branches. Indeed, there are other branches of international law that can equally subscribe to sustainable development, such as outer space law.

Results of the Analysis

Outer Space Treaties and Relevant Soft Law Documents

The issue of space debris contaminating outer space occurs during accidental collision or an intentional breakup to dispose of aged satellites, during the launching process of a rocket and satellites, and during the re-entry of space debris into the earth’s atmosphere. These instances have highlighted the importance of environmental protection, an aspect of sustainable development. Space debris is defined as “all man-made objects, including fragments and elements thereof, in earth orbit or re-entering the atmosphere, that are non-functional”

(UNOOSA, 2010, p. 1). The five binding treaties that constitute outer space law do not provide any definition of space debris. The movement of outer space law to embrace sustainable development began after the following milestone: In 1999, the Space Millennium: Vienna Declaration on Space and Human Development (thereafter Millennium Vienna Declaration) indicated that space activities must accord with the direction of sustainable development (Hosseini et al, 2021, p. 398). Moreover, this same Millennium Vienna Declaration asserted that space research should be useful to assist developing countries (Hosseini et al, 2021, p. 398). In addition, the Declaration on the Fiftieth Anniversary of Human Space Flight and the Fiftieth Anniversary of the Committee on the Peaceful Uses of Outer Space in 2001 wished to “[e]xpress our deep concern about the fragility of the space environment and the challenges to the long-term sustainability of outer space activities, in particular the impact of space debris” (Hosseini et al, 2021, p. 398). The most momentous breakthrough in linking outer space law with sustainable development came in June 2011, when the UN Committee on the Peaceful Uses of Outer Space (UNCOPUOS) adopted the Terms of Reference and Methods of Work of the Working Group on Long-term Sustainability of Outer Space Activities that extended the concept of sustainable development into the area of outer space as an issue worthwhile to be examined (Pogorzelska, 2015, p. 77). Over time, the term sustainable development was converted to sustainability. By June 2018, UNCOPUOS produced 21 guidelines known as the Guidelines on the Long-term Sustainability of Outer Space Activities (Wolny, 2018).

A few guidelines are of relevance to the discussion on space debris in this research. The guideline to Promote and Support Research into and the Development of Ways to Support Sustainable Exploration and Use of Outer-Space emphasises that states and international organisations must promote technologies to minimise the environmental impact of manufacturing and launching space assets in addition to the use of renewable resources. In particular, states and international organisations are urged to consider “the outcome document of the [UN] Conference on Sustainable Development (General Assembly Resolution 66/288, annex), the social, economic and environmental dimensions of sustainable development on earth” (UNOOSA, 2018, p. 19). The said guideline further stresses “appropriate safety measures to protect the earth and the space environment from harmful contamination” (UNOOSA, 2018, p.19). In this context, it is notable that there is a strong emphasis on environmental protection in the launching of spacecraft, while states and the private sector are urged to use environmentally friendly resources for rockets and their spacecraft. Harmful contamination can be understood as causing environmental degradation as a consequence of space debris re-entering the earth atmosphere whether in air or on land, or in space itself as a result of any collision in outer space or the deliberate blasting of any old satellite no longer in use. Whether harmful contamination can be extended to any health impact on human beings and animals is unclear, but this could be implied.

Another guideline relevant to the discussion on space debris and issued by UNOOSA in June 2018 is Investigate and Consider New Measures to Manage the Space Debris Population in the Long Term (UNOOSA, 2018, p. 19). This guideline stresses the need to comply with the Space Debris Mitigation Guidelines of UNCOPUOS. Regarding controlled or uncontrolled re-entry into the earth atmosphere, it is stressed that the space debris must “not pose an undue risk to people or property, including through environmental pollution caused by hazardous substances” (UNOOSA, 2018, p. 20). The wording in this particular paragraph intends to address damage as contained in Article 1 of the Space Liability Convention. Article 1 (a) of the Space Liability Convention refers to damage as the loss of life, personal injury or other impairment to health; or loss of or damage to property of States or of persons, natural or

juridical, or property of international organisations. While the Space Liability Convention does not refer to environmental pollution, it does refer to impairment to health, which is not stated in the guideline to Investigate and Consider New Measures to Manage the Space Debris Population in the Long Term. Failing to explicitly mention any health effects from space debris shows the drafters' intentions to downplay international health law in the context of outer space.

Of crucial importance is another guideline – to Take Measures to Address Risks Associated with the Uncontrolled Re-entry of Space Objects – whereby the launching state or intergovernmental organisation must inform other states of the likely location the hazardous space object will drop to enable the latter to prepare in advance any emergency measures as contained in paragraph 1 (UNOOSA, 2018, p. 16). In paragraph 6 of the aforementioned guideline, the state or international intergovernmental organisation having control over the fallen space object must furnish the necessary identification information; assist the affected state(s), which are victims of the hazardous space objects, in conducting an assessment analysis; and evacuate and return the hazardous space objects to the original owner as soon as possible. This prevents any harmful effects if any hazardous materials survive the process of re-entry to the earth's atmosphere, as indicated in paragraph 6 (UNOOSA, 2018, p. 16). The term "harmful effects" is not defined but presumably could imply harm to humans and animals' health or even environmental harm. It would certainly be wise for the drafters of this guideline to explain what is meant by "harmful effects" rather than leaving the term subject to interpretation. Then again, this guideline does not mention any hazards directly affecting human health in order to downgrade the importance of said matter.

Yet another relevant guideline in addressing space debris is (to) Provide Updated Contact Information and Share Information on Space Objects and Orbital Events (UNOOSA, 2018, p. 10). Paragraph 1 requires entities possessing the necessary information to provide in a timely manner information concerning any incoming incident reports and forecasts to the Office for Outer Space Affairs to enable such information to be disseminated to other states. This should be done as soon as possible to prevent any probability collisions in outer space that may pose a risk to human lives, property and/or the environment as also in the case of re-entry of space objects into the earth atmosphere, as indicated in paragraph 2 (UNOOSA, 2018, p. 10). Notably, this guideline refers more clearly to health concerns as it directly pinpoints the risk to human lives and also addresses the likely harm to the environment.

Moreover, the guideline to raise Awareness of Space Activities is crucial as Paragraph 1(a) emphasises the need to "[p]romote institutional and public awareness of space activities and their applications for sustainable development, environmental monitoring and assessment, disaster management and emergency response" (UNOOSA, 2018, p. 18). This must be done in cooperation with public institutions and non-governmental organisations (NGOs) through outreach programmes, education programmes and seminars broadcasted over the internet and through other means (UNOOSA, 2018, p. 18). The public must be aware about national and international policies, legislation, regulations and best practices concerning outer space activities to increase their own knowledge awareness (UNOOSA, 2018, p. 18). Paragraph 4 also asserts the need for cooperation between government agencies, NGOs and the industry to also adopt the Space Debris Mitigation Guidelines of the UNCOPUOS (UNOOSA, 2018, p. 18). Notably, the wording of this guideline places a strong emphasis on sustainable development and the environment. However, there is no mention of the downside of space exploration regarding health concerns from the pollution of space debris falling from outer space or in the launching process of a rocket or spacecraft.

Regarding national action to be taken, there is also the guideline to Consider a Number of Elements when Developing, Revising or Amending, as Necessary, National Regulatory Frameworks for Outer Space Activities. Paragraph 1 urges states to implement the outer space treaties they have signed and ratified in good faith (UNOOSA, 2018, p. 18). Paragraph 2 (c) also requires states to address “to the extent practicable, risks to people, property, public health and the environment associated with the launch, in-orbit operation and re-entry of space objects”. Noticeably, equal emphasis is given to both public health and environmental protection in the wording of paragraph 2(c), which addresses the components of sustainable development. Paragraph 2 (d), however, encourages states to plan their activities in accordance with Sustainable Development Goals, with the aim of realising the sustainability of space and on Earth. Much can be learned from the catastrophe of the crash of the Soviet Union’s satellite, Cosmos 954, described in detail earlier (Hosseini et al, 2021, p. 392). It is for this reason that the guideline to Consider a Number of Elements when Developing, Revising or Amending, as Necessary, National Regulatory Frameworks for Outer Space Activities in paragraph 2 (e) urges states to implement the Safety Framework for Nuclear Power Source Applications in Outer Space and satisfy the intent of the Principles Relevant to the Use of Nuclear Power Sources in Outer Space through regulatory, legal and technical frameworks. The aim of this is to prevent another catastrophe such as Cosmos 954. Unless absolutely necessary, only far space exploration from the earth can trigger the use of nuclear reactors. Otherwise, states have to use alternative forms of power for their rockets and satellites to avoid causing an environmental catastrophe and expensive cleaning-up process.

Based on the analysis conducted concerning the various guidelines that constitute the document Guidelines for the Long-term Sustainability of Outer Space Activities, two points can be made. On the one hand, the international community can be applauded for achieving a milestone in outer space law as finally environmental protection is prominent in the exploration of outer space because of the issue of space debris and with other principles of international law being emphasised, such as the principle of cooperation and principle of equity. Although this achievement is ground breaking, all of the guidelines are soft law documents which are non-binding, and states need only voluntarily apply these guidelines unlike binding outer space treaty law (Haroun et al., 2021, p. 65; Hosseini et al., 2021, p. 395). Nevertheless, these various guidelines can help fill in the gap and complement some of the outer space treaties that have ambiguous terms that need clarity. Such is the case of Article IX of the 1967 Outer Space Treaty, whereby part of the wording of the said provision is indicated below:

*States Parties to the Treaty shall pursue studies of outer space, including the Moon and other celestial bodies, and conduct exploration of them so as to avoid their **harmful contamination** and also adverse changes in the **environment** of the Earth resulting from the introduction of extraterrestrial matter and, where necessary, shall adopt appropriate measures for this purpose.*

While the Outer Space Treaty of 1967 is indeed binding on states which have signed and ratified this treaty, scholars (Haroun et al., 2021, p. 65) have pinpointed the term “harmful contamination” as unclear as it fails to explain what constitutes harmful contamination. Pogorzelska (2013) highlights that Article IX of the Outer Space Treaty of 1967 was intended to incorporate environmentally responsible behaviour to include space debris within the scope of contamination and to comply with the Space Debris Mitigation Guidelines of 2007. As Pogorzelska (2013) further correctly explains, when the five outer space treaties were drafted in the late 1960s, environmental problems were barely considered as it was the beginning of

the outer space exploration era. No one could have foreseen the twenty-first century situation of outer space being overcrowded with many state satellites with various functions and those which are non-functional becoming space debris. Neither was there a formalised mechanism at the end of the 1960s at the UN to monitor environmental matters as the United Nations Environmental Programme (UNEP) only began in 1972 with the adoption of the Stockholm Declaration and charting the path for the evolution of international environmental law (Segger & Khalfan, 2004a, p. 17). Therefore, the various guidelines constituting the document Guidelines for the Long-term Sustainability of Outer Space Activities (UNOOSA, 2018) have paved the way to providing some clarity for previously ambiguous terms such as “harmful contamination” as contained in Article IX of the Outer Space Treaty of 1967. This shows that soft law documents can provide more details of ambiguous terms contained among provisions in outer space treaties to make them much clearer to the implementer.

Although harmful contamination based on the various guidelines contained in the document Guidelines for the Long-term Sustainability of Outer Space Activities have been meant to refer to environmental pollution, it is argued that this term should also extend to health concerns arising from exposure to space debris which have re-entered the earth atmosphere. This aspect has been downplayed and deserves better emphasis, with increasing states now becoming victims to space debris falling from the sky. This is also an opportunity to further the development of international health law in the context of outer space in a timely manner, emphasising the role the WHO can play. Nevertheless, the WHO has played a more subdued role regarding health concerns arising from space debris from outer space rather than being assertive. Instead, the WHO has collaborated with the Office for Outer Space Affairs regarding the Space and Global Health Platform to promote telehealth and address how passengers are affected health-wise in the context of space tourism (UNGA, 2022, p. 4). It is stressed here that the WHO should play a more proactive role in emphasising health concerns regarding space debris matter rather than merely focusing on the positive aspects of health promotion in outer space.

Rejuvenating the WHO’s Role in Addressing Space Debris

In the past, the WHO has been involved with work concerning outer space. In May 1966, the WHO at the World Health Assembly (WHA) produced a resolution entitled Effects of Atomic Radiation (WHO, 1966, p. 18). As early as 1966, the international community was already concerned about the testing of nuclear weapons even in outer space due to their potential “harmful effects to present and future generations resulting from the increase in the levels of radiation to which man is exposed from nuclear and nuclear weapon tests [...]” as indicated in the said resolution (WHO, 1966, p. 18). The concern for present and future generations is a phrase now reflected in the definition of sustainable development. This same resolution stressed that the effects of radiation “may not be fully manifested for several decades in the case of somatic disease (implying cancer) and for many generations in the case of genetic damage” (WHO, 1966, p. 18). This WHO resolution then called for “countries to respect the spirit and the provisions of the treaty banning nuclear weapon tests in the atmosphere, in outer space and under water” (WHO, 1966, p. 18). Furthermore, the resolution emphasised the role the WHO would play at the international level “in the field of health involving ionizing radiation, including protection from radiation hazards and the medical uses of radiation and radioactive isotopes” (WHO, 1966, p. 18). Subsequently, in one WHO document which addressed “international cooperation in the peaceful uses of outer space”, special thanks were made to the WHO, the International Atomic Energy Agency (IAEA) and the International

Science Council (ICSU) for participating and contributing to the work of the UN Conference on the Exploration and Peaceful Uses of Outer Space and for working within their area of competence (WHO, 1969, p. 18).

Moreover, the WHO has also worked with the United Nations Scientific Committee on the Effects of Atomic Radiation (UNSCEAR), formed in 1955 (WHO, 1970, p. 47). UNSCEAR has been responsible for receiving and assembling radiological information provided by UN members and specialised agencies (WHO, 1970, p. 47). Moreover, UNSCEAR has the task of increasing the available knowledge about the levels and effects of atomic radiation from all sources (WHO, 1970, p. 47). Indeed, the WHO is represented at the yearly meetings of UNSCEAR and exchanges information for technical publications (WHO, 1970, p. 47). In addition, since 1959, the WHO has also worked closely with UNCOPUOS (WHO, 1970, p. 47).

Should there be a large catastrophe involving the dropping and explosion of a nuclear reactor satellite or hydrazine fuel tank that has fallen to earth, this could also trigger the application of the IHR 2005. An explosion of a nuclear reactor from a satellite or fuel tank containing hydrazine on a large scale covering a wide area circumference on a member state's territory may be a public health emergency of international concern (PHEIC) sufficient to trigger the IHR 2005, as this applies to "public health risks of radiation, as well as those of [...] chemical origin" (IAEA, 2013, p. 43). The IHR 2005, however, is unclear regarding the threshold of what can constitute a PHEIC; whether a catastrophic incident would need to be of an international scale spreading to more than one country's territory and involve a rapid spread of disease. For cases of a nuclear reactor or hydrazine fuel tank explosion, this is most likely to involve non-communicable diseases, which may not spread easily at a rapid pace and may involve merely hundreds or a few thousand people. In such a situation, it is questionable whether this would qualify as a PHEIC as its criteria and threshold is unclear. However, a fallen space debris incident such as a nuclear reactor or hydrazine-filled fuel tank may very well break into different parts and fall and spread across nearby countries' territories. A useful example is the case of China's Long March 5B rocket at the end of July, 2022 in Southeast Asia that involved the spread of space debris in Malaysia, Indonesia and the Philippines ('Debris from Chinese', 2022). This incident was not restricted to the national level but was international within the Southeast Asian region. This may well trigger the applicability of the IHR 2005 because it could be a PHEIC within a region.

The IHR 2005 requires states to have national focal points readily available to report a PHEIC to the WHO at any time and have an emergency response plan with necessary teams. These teams include national radiation and chemical safety authorities, who can be deployed to the catastrophic site to assess and report on an incident (IAEA, 2013, p. 43). In the event of a nuclear or chemical catastrophe, the WHA has stated the need "to treat any deliberate use of [...] chemical agents and radiological or nuclear attack [...] as a global public health threat" (IAEA, 2013, p. 45). WHO states are also encouraged to share expertise, supplies and resources to affected states. There is also reference to contact points and experts internationally that could be referred to when addressing a large-scale nuclear catastrophe (IAEA, 2013, pp. 45-46).

However, the IHR 2005 has its drawbacks as it is mainly concerned with public health risks such as the international spread of diseases, which could imply communicable diseases that fastidiously transmit across borders. In clarifying this grey area, the WHO can assist by issuing a statement, resolution or guideline in the event of a catastrophic space debris disaster involving

a nuclear reactor or hydrazine fuel tank that the IHR 2005 could apply and need not be restricted to communicable diseases spreading across state borders. However, “not all events involving radiation present the risks to public health to trigger some of the provisions in the IHR” (IAEA, 2013, p. 46). This could even imply that if one to five individuals are hit by contaminated space debris with nuclear radiation or parts of a fuel tank that are toxic, then this might not be sufficient to trigger the IHR 2005. The Department of Public Health and the Environment (PHE), Health Security and Environment Cluster (HSE) of the WHO is the contact point for dealing with nuclear disasters in the event of a nuclear reactor explosion as space debris.

To increase the WHO’s role in linking outer space and international health law, it could issue a requirement among member states to the IHR 2005 to notify an incident of space debris involving nuclear reactors and its materials used or the chemicals used for a fuel tank in a rocket/spacecraft, in addition to the likely health diseases affected states would encounter among its population if the hazardous space debris fell into their territory. This would alert the affected states in advance for an emergency situation. Such a requirement is an extra condition for the launching state that had launched a rocket or satellite to comply with in addition to the need to convey the coordinates where the hazardous space debris is likely to fall. In so doing, the WHO could make its role in addressing health matters pertaining to space debris more prominent.

Regarding the WHO’s monitoring of the health consequences of hydrazine, a 1987 booklet merely indicates its usage as a monopropellant in space vehicles and satellites (WHO, 1987). This booklet also indicates that hydrazine can also be an occupational safety and health hazard for workers involved in spacecraft launching (WHO, 1987). As studies indicating how hydrazine affects the targeted population exposed to it and the related diseases it causes are few in number, the WHO needs to encourage more studies pertaining to how toxic hydrazine space debris affects indigenous groups or those responsible for filling up fuel in rockets. Based on these studies, the WHO can most likely probably conclude if hydrazine can continue to be used as rocket/ spacecraft fuel or if more environmentally friendly fuel must be produced by space-faring states.

In summary, this section’s analysis of the WHO’s role in developing international health law regarding outer space activities through a binding treaty and other soft law documents has highlighted its limited role herein. As more non-space-faring states become victims of potentially hazardous space debris, the time is ripe for the WHO to focus attention through statements and documentation concerning the health hazards of space debris and possible associated diseases, thus creating more awareness among states and their populations. This will enable the WHO to have more clout and avoid it becoming a redundant organisation that fails to address health concerns pertaining to outer space. Thus, the WHO now has the opportunity to develop international health law further in the context of outer space as this is the missing link to truly achieving sustainability in outer space.

Conclusion

In conclusion, while outer space law is increasingly acknowledging environmental contamination and sustainable development because of the space debris phenomenon, this does not equally apply to harm to human health from space debris, requiring the WHO to take more action in international health law. This has been reflected by the analysis of the subsidiary guidelines contained in the document Guidelines on the Long-term Sustainability of Outer

Space Activities which focus on environmental contamination and protection and refer explicitly to the attainment of sustainable development. These subsidiary guidelines can help to clarify the ambiguous term “harmful contamination” to refer to environmental pollution contained in Article IX of the 1967 Outer Space Treaty as soft law documents can support the implementation of unclear treaties.

This research has examined collaborative work by the WHO and other international organisations such as the IAEA, UNSCEAR and UNOOSA in addressing nuclear radiation contamination which may apply to hazardous space debris in outer space activities. No specific documentation *per se* has been issued by the WHO itself regarding nuclear radiation materials from space debris as a result of outer space activities and their health implications. Indeed, it would be timely for the WHO to produce specific documentation on this matter.

Regarding the toxic hydrazine contained in fuel tanks of space craft that fall to earth as space debris, only one WHO guideline, which provides some description about the health hazards of hydrazine, briefly mentions its usage in space crafts and as an occupational safety hazard among workers who fill up rockets with this fuel. Few studies have been conducted to show how hydrazine, which could be present among discarded space debris in a fuel tank, could affect health authorities responsible for moving it, the local community and indigenous people who accidentally come into contact with and are exposed to this toxic chemical. The implication from this finding is that the WHO should encourage more studies to be conducted about the hydrazine used for outer space activities and the form of diseases it may cause for the local population, indigenous communities, and workers responsible for filling rockets with this fuel. The WHO should also encourage space-faring states to research and produce more environmentally friendly rocket fuel to avoid causing health hazards to the segments of society already mentioned. The more disturbing findings from this research concern indigenous communities affected by toxic hydrazine fuel when irresponsible states dump discarded fuel into the sea. This harms marine life, which is the source of food and livelihood for indigenous communities as in the case of the Barents Sea and North Water Polynya. This raises an environmental justice issue of dumping toxic substances in remote places rather than within the launching state’s territory itself for fear of health hazards and opposition from their citizens. The implication from this finding is that there is room to explore international human rights law, which also forms the crux of ISDL regarding indigenous communities’ rights being affected by outer space activities, in particular space debris deposition.

Regarding the utilisation of the IHR 2005 in the context of space debris incidents, any launching state of a rocket/satellite that is aware of hazardous space debris containing toxic chemicals or nuclear material could inform the affected states, who will be victims of the fallen space debris such as fuel tanks or nuclear-powered reactors. The launching state must provide information on the chemicals used for fuel or the nuclear material powering the satellite such as uranium or plutonium, in addition to the likely health diseases that would affect victimised states. This should enable the affected states to prepare for emergencies affecting their populations. This should be an additional requirement to the launching state besides providing the coordinates where a fuel tank containing hazardous chemicals or a nuclear-powered reactor will fall from outer space. The problem with the application of the IHR 2005 is that it might apply to a large-scale health emergency worldwide such as communicable diseases, whereas some states may only be victims of hazardous space debris affecting a minority of their population and thus not triggering the use of the IHR 2005 itself. All of the actions mentioned

would certainly help further the development of international health law in outer space, a field which currently has many loopholes.

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ASSESSING MARKETING STRATEGIES OF HALAL CERTIFIED FOOD MANUFACTURERS IN MINDANAO, PHILIPPINES: A QUANTITATIVE ANALYSIS

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Abstract: *This study assessed the marketing strategies of halal certified food manufacturers in the selected provinces of Mindanao. Specifically, it evaluated the level of implementation and effectiveness of the existing marketing strategies of the manufacturers. The study is a descriptive-correlational research. It conducted a survey to 70 marketing personnel of the different manufacturers and 398 Muslim consumers who are residing in Marawi City. The data gathered were treated and analyzed using weighted mean and independent sample T-test. The assessment of marketing personnel revealed that the marketing strategies of halal certified food manufacturers are halal compliant in terms of product, price, place, promotion, people and process as these elements are evaluated to be at least implemented and effective. However, based on the evaluation of the Muslim consumers, it came out that the marketing strategies of halal certified food manufacturers are only halal compliant on product, promotion and people as these elements are assessed to be implemented, but have failed to meet the halal standards with regard to price, place, process and physical evidence as these elements are found to be less implemented and less effective. Given the findings of the study, it is recommended that the manufacturers should work on the improvements of the strategies that are evaluated to be less compliant and should sustain the implementation of their strategies assessed to be effective as to compliance on halal so they will be able to achieve sustainable growth.*

Keywords: *Marketing strategies, halal food, quantitative, Mindanao*

Introduction

Marketing is vital to the existence of an organization. It drives the success of a company as it primarily serves as a bridge in satisfying consumers and creating profit (Fejza & Asllani, 2013). Thus, it is necessary to be given attention for the sustainable growth of an organization.

As food industry demands higher customer-orientation, functions of marketing should be given more importance. Food manufacturers should devote time on designing and implementing marketing strategies that would create value proposition to their customers. Food industry should employ marketing efforts that ensure customer satisfaction which would be the key to have more loyal customers, and thereby improve their financial performance.

Recently, the market for halal food has caught the attention of manufacturers due to the fast-growing worldwide Muslim population and growing awareness. Nevertheless, food consumption is the most critical for Muslim consumers' primary needs since they have to take halal products (Varinli, Erdem & Avcilar, 2016).

Several studies have found out that there are challenges and problems encountered by halal producers on their marketing strategies and activities. As highlighted in the study of Omar (2013), marketing aspect is a main challenge confronted by companies due to lack of knowledge in Islamic marketing. This finding is also reinforced by the study of Arif (2011) which indicated that lack of effective Islamic marketing strategies contributes to the failure of the food industry to satisfy Muslim consumers.

Thus, this study assessed the marketing strategies of halal certified food manufacturers in the selected provinces of Mindanao. Specifically, it evaluated the level of implementation and effectiveness of the existing marketing strategies of the manufacturers. With the findings of the study, the manufacturers will be able to determine the areas on their strategies that require necessary improvement. Significantly, the study will be able to provide manufacturers insights on consumers' requirements and serve as important basis in the improvement of their marketing strategies which help them attain full compliance with halal business practices.

Literature Review

Overview of Marketing and Islamic Marketing

Marketing has travelled far in the concept and definition. Several eras present concepts and definitions that vary from a different view. However, in all of them, there reveal the shifting perspective of the phenomenon of marketing (Tabrani & Marlizar, 2016). In July 2013, the American Marketing Association released its most recent approved definition of the concept. It defines marketing as an activity, set of institutions, and processes for creating, communicating, delivering, and exchanging offerings have value for customers, clients, partners, and society at large. While, Kotler (2010), in his latest definition, describes marketing as a social and managerial process by which individuals and groups obtain what they need and want through creating and exchanging products and value with others.

However, these definitions have been noted by Tabrani and Marlizar (2016) that have focus only on the concept and philosophy of conventional marketing. The mentioned researchers highlight that marketing has been considered as a special function or process of creating and exchanging goods and services that meet customer and company goals. Hence, they argue that this broader definition has emphasized the secular and materialistic worldview that has attracted the maximum attention to the material aspects of human well-being and to maximize their wealth. This idea gives importance in the study of Islamic Marketing as an emerging field. The study of Shamsudin and Rahman (2014) noted that the marketing concepts alter over time. As companies begun to focus on religion as one essential element to be considered in marketing, companies started to appreciate the significance of the concepts in Islamic marketing.

According to Najmaei et al. (2017), Islamic marketing can be defined as the promotion of products that would be in line with Islamic values. His definition is supported from Quran 4:29, "One who believe! Eat not up your property among yourselves unjustly expect it to be a trade amongst you, by mutual consent. And do not kill yourselves (nor kill one another). Surely, Allah is most merciful to you."

Marketing Mix in an Islamic Perspective

Traditionally, the pillars of marketing were identified as 4Ps which stands for product, price, place and promotion. Yet, as the customers are becoming more sophisticated, three more 'Ps' were added, namely, people, process and physical evidence. Currently, these considerations are known as the 7Ps of marketing and usually termed as the marketing mix (Lovelock, Wirtz & Chew, 2011).

Alserhan et al. (2016) noted that marketing mix in an Islamic perspective is focused on value-maximization to encourage societal welfare approach. Thus, it is crucial for the players in this field to understand different aspects of Islamic marketing and its impact on the implementation of marketing strategy. In fact, halal exporters that have designed their marketing strategy in accordance to Islamic values, beliefs, norms and practices have greater potential to enhance their export performance in Islamic markets (Tahir and Abdul, 2013).

The seven components of the marketing mix are presented and discussed considering Islamic perspective.

Product. A product is a thing that can be offered to a market to satisfy a want or need (Kotler, 2010). As emphasized by Ireland and Rajabzadeh (2011), same with any consumer across the globe, a Muslim would choose products according to the quality, convenience and very importantly, guarantee of verification of definite religious guidelines. Based on the Islamic standpoint, any associated process and function should be performed within ethical limitations set by Sharia. As such, the product can be treated as halal (allowable or lawful, contrary to haram) if it can provide important benefits and values to customers.

Interestingly, Saleh and Salsabila (2018) present four important success factors intended for product. Firstly, avoid selling food products that are containing alcohol (Tieman and Ghazali, 2013). Secondly, avoid selling products that are containing ingredients from swine, blood, carrion and fanged beast (Syazwan Ab Talib and Abdul Hamid, 2014). Thirdly, serve food products in clean condition as the characteristic of the halal product (Abdullah et al., 2015). Finally, ensure that the procedure of creating the food products is in line with the Sharia standards (Tieman and Ghazali, 2013).

Price. Al Serhan and Alobaitha (2013) pointed out that altering the price without changing the quality or quantity is considered deceitful as indicated in Islamic teaching. Moreover, the study of Saeed et al. (2010) in global marketing ethics from an Islamic perspective stressed out that profit maximization should not be treated as a priority in an Islamic practice. Abuznaid (2012) makes it clear that in Islam taking into account customers' concerns is not less significant than taking into account sellers' concerns. He emphasizes that in Islam Allah is the Pricer.

Place. According to Kotler (2010), place or also known as distribution, is the various activities the company undertakes to make the product accessible and available to target customer. Products are created to be sold to the consumers. The study of Saleh and Salsabila (2018) highlight some guidelines in ensuring halal compliance in the place aspect. First, the place or distribution channel must be accessible (Abdullah et al., 2015). Second, the display where halal products are place must be clean (Zailani et al., 2015). Lastly, in the distribution process, halal product must be in a good condition until that product is delivered to the customer (Ishak and Abdullah, 2012).

Promotion. Promotion comprise all the activities that the company undertakes to communicate and promote its products to the target market (Kotler, 2010). Abdullah et al. (2015) further defined it as the activity done to deliver the value or information of the product that is offered to the customers. Saleh and Salsabila (2018) emphasize that in Islamic marketing mix, promotion should fulfil the promises that contained in the product as the explanation about the real quality, the guarantee and other characteristics of the offered product. They also provided three relevant success factors to ensure success in the promotion. First, the technique in promoting the product must be honest, transparent and show real condition of the product (Ahmed and Rahman, 2015). Second, avoid to use woman, posing sexual desire, in promoting the product (Ishak and Abdullah, 2012). Last but not the least, a company should use the conscience to avoid losses of the other businesses (Abdullah et al., 2015).

People. According to Saleh and Salsabila (2018), people is referred to as the employees that produce, provide, and deliver halal food to the customer. The people that are involved in marketing process must have the knowledge about halal food. The people element of the marketing mix dictates that customers' decision-making freedom must be protected from all elements of coercion (Abuznaid, 2012). Furthermore, human resource manager should have the commitment to make sure the employee gives the best service to customers (Abdullah et al., 2015).

Process. Process is referred to as the best practice in delivering products and services to the customers with the aim of making them happy and satisfied (Lovelock et al., 2011). Saleh and Salsabila (2018) provide three important considerations to ensure success in the process element of the marketing mix. First, make the customers feel comfortable in negotiation process. Second, there is no element of coercion to the customer to buy the product. Lastly, the explanation about the product must be appropriate with the real condition (Abdullah et al., 2015).

Physical Evidence. The physical evidence of halal food should convince the customer of the product offered (Saleh and Salsabila, 2018). Moreover, according to Abuznaid (2012), physical evidence is an implicit element which means the ability and environment in which the service is delivered. It can be both tangible goods that help to communicate and perform the service, and the intangible experience of existing customers and the ability of the business to relay that customer satisfaction to potential customers. It is also considered as an essential ingredient of the service mix which allows the consumer again to make judgments on the organization.

In accordance with the discussion on the marketing mix, a framework illustrating the 7Ps in Islamic marketing which include product, price, place, promotion, people, process and physical evidence is presented in Figure 1 on the next page. This framework is anchored on the study of Abuznaid (2012); Hashim and Hamzah (2013); Saleh and Salsabila (2018); and Tabrani and Marlizar (2016).



Figure 1: 7Ps in Islamic Marketing

Halal Concept and Halal Food

Halal is an Arabic word meaning lawful or permitted. In reference to food, it is the dietary standard, as prescribed in the Qur'an. The opposite of halal is haram, which means unlawful or prohibited. These terms are commonly used in relation to food products, meat products, cosmetics, personal care products, pharmaceuticals, food ingredients, and food contact materials. While many things are clearly halal or haram, there are some things which are not clear. Further information is needed to categorize them as halal or haram. Such items are often referred to as mashbooh, which means doubtful or questionable (Islamic Council of Victoria, 2019). Moreover, the concept of halal is not only related to food or food products, as most people will expect or think, but it goes beyond food to cover all the aspects of a Muslim person life may it be male or female (Esfahani & Shahnazari, 2013).

Baharuddin et al. (2015) emphasize that there are no parties which can claim the food is halal without complying with Islamic Law. Halal and non-halal covers all spectrums of Muslim life, not limited to foods and drinks only, but also for safety, animal welfare, social justice and sustainable environment. Halal and Toyyiban which means clean and wholesome portray the symbol of intolerance to hygiene, safety and quality of food that Muslims consumed.

As mentioned in the study of Khan and Haleem (2016), the Islamic dietary law stated that all foods are permitted to be consumed or traded, under normal circumstances, except for foods that are categorically being quoted in the Holy book of the Quran and the Hadith (books that recorded the Prophet Muhammad (SAW)'s sayings and practices). The foods which are forbidden or prohibited are referred to as haram foods.

Halal Certification

Daud et al., (2011) point out that halal certification is a new concept in marketing as well as being a quality benchmark for the producer. It has become a vital marketing tool in promoting a product since it is not just representing quality but commitments towards religious commandments as well, at least for Muslims. Halal certification is very important to the success of halal food manufacturers. Interestingly, a study of Shafie et al. (2010) found that halal certification is very prevalent in the food industry, as it promotes the importance on having knowledge of Muslim's dietary restrictions, sensitivity and religious practices.

The study of Talib et al. (2015) reveal that industry which implements the halal requirements will produce better quality food products compared to those who implement the conventional standards. Notably, Khan and Haleem (2016) highlighted that halal certification provides benefits to consumers and a competitive advantage for food producers. The researchers further stressed out that halal certification can be used as a product differentiation technique which in turn increases the company's revenue and enhances its marketability especially to halal consumers.

Methods

Design and Locale

This study is designed as a quantitative research. The study was conducted in the selected provinces of Mindanao, Philippines where most of the halal certified food manufacturers are located. These provinces include Davao del Sur, Misamis Oriental, South Cotabato, Zamboanga del Sur, Agusan del Norte, Agusan del Sur and Lanao del Norte. With regards to the Muslim consumers, the study considered the Muslim consumers who are residing at Marawi City or also known as the Islamic City of Marawi.

Participants

The study had two groups of respondents. The first group of respondents were the marketing personnel of the halal certified food manufacturers located within the seven (7) provinces of Mindanao. This includes the head of the marketing department of a company or its marketing manager, the assistant/associate marketing department head or senior marketing department personnel. Based on the current list provided by Islamic Da'wah Council of the Philippines, a renowned halal certification authority, there is a total of seventy-nine (79) halal certified food manufacturers operating in the seven provinces of Mindanao considering the selected categories of halal processed food products. All of them will be considered as respondents of the study, but only 70 of them participated in the survey.

On the other hand, the second group of respondents were the Muslim consumers who are residing in Marawi City. They were chosen among Muslim consumers because they are living in an Islamic city of the country; it is expected that they are sincerely practicing their Islamic beliefs. To ensure an objective and reliable assessment, only those Muslim residents who are at least 18 years old were considered as respondents. Cochran's formula using 5% margin of error was applied to determine the sample size of 398 respondents.

Instruments

Since there were two groups of respondents in this study, two sets of questionnaires were used for the collection of data. The first set of questionnaires was intended for the marketing personnel of the halal certified food manufacturers. The second set was used for the Muslim consumers. The study of Abuznaid (2012) had greatly contributed to the questions used in the research instruments. Studies of Hashim and Hamzah (2013); Hejase et al. (2012); Omar (2013); and Saleh and Salsabila (2018) were also used to develop the instruments. To ensure the functionality of the instrument, validity and reliability tests were done. Content validation was done by experts on the field and professional researchers. Moreover, Cronbach's alpha was determined to guarantee the consistency of the question as presented in Table 1.

Table 1. Reliability Test

| Questions | Number of Items | Cronbach's Alpha | Interpretation |
|--------------------------------|-----------------|------------------|----------------|
| Marketing Strategies (7 Ps) | 50 | 0.904 | Good |
| Challenges and Problems (7 Ps) | 32 | 0.901 | Good |

Data Collection Procedures

To ensure the functionality of the questionnaires, the researcher conducted a dry run of the instruments. After the dry run, respondents accomplished the questionnaires, the researcher gathered the answered questionnaires. The responses to the questionnaires were screened to determine incidence of non-response to any question and evaluate the trend of responses. The result of the screening was used as basis for revisions on the instruments. Experts on the field being studied as well as professional researchers were consulted to ensure the validity of the instruments before they were finalized. Permission to conduct a survey from the two groups of respondents was asked. Before the questionnaires were distributed to the respondents, instructions were thoroughly explained.

Data Analysis

The data collected were treated and analyzed using percentage, weighted mean and independent sample T-test.

Ethical Considerations

The researcher had used the ethical principles in research in the conduct of the study especially during the data gathering procedure. Before the respondent answers the questionnaire he/she is to be notified about the aims, methods and anticipated benefits of the study, his/her right to abstain from participation in the research, and his/her right to terminate at any time his/her participation; and the confidential nature of his/her answers and replies.

Results

Level of Implementation of the Marketing Strategies

The level of implementation of the marketing strategies of the manufacturers was assessed by both the marketing personnel and the Muslim consumers.

Table 2: Assessment of the Marketing Personnel on the Level of Implementation of the Marketing Strategies

| 7Ps | Weighted Mean | Interpretation |
|--------------------------------------|-------------------------------|------------------------------|
| Product | 3.44 | Well Implemented |
| Price | 3.23 | Implemented |
| Place | 3.06 | Implemented |
| Promotion | 3.49 | Well Implemented |
| People | 3.21 | Implemented |
| Process | 3.22 | Implemented |
| Physical Evidence | 2.48 | Less Implemented |
| Over-all Weighted Mean of 7Ps | 3.16 | Implemented |
| <i>Legend:</i> | 3.26 – 4.00: Well Implemented | 2.51 – 3.25: Implemented |
| | 1.76 – 2.50: Less Implemented | 1.00 – 1.75: Not Implemented |

Table 2 presents the summary of the assessment of the marketing personnel on the level of implementation of the marketing strategies of the manufacturers on the 7Ps. The marketing strategies in the 7Ps found to be implemented with an over-all weighed mean of 3.16. Among the 7Ps, promotion garnered the highest weighted mean of 3.49, and then followed by product with a weighted mean of 3.44 of which both are assessed to be well implemented. The four other Ps succeeding product evaluated to be implemented are rank as follows: price with a weighted mean of 3.23, process with a weighted mean of 3.22, people with a weighted mean of 3.21 and place with a weighted mean of 3.06.

Table 3: Assessment of the Muslim Consumers on the Level of Implementation of the Marketing Strategies

| 7Ps | Weighted Mean | Interpretation |
|--------------------------------------|-------------------------------|------------------------------|
| Product | 2.53 | Implemented |
| Price | 2 | Less Implemented |
| Place | 2.29 | Less Implemented |
| Promotion | 2.59 | Implemented |
| People | 2.51 | Implemented |
| Process | 2.28 | Less Implemented |
| Physical Evidence | 2.13 | Less Implemented |
| Over-all Weighted Mean of 7Ps | 2.33 | Less Implemented |
| <i>Legend:</i> | 3.26 – 4.00: Well Implemented | 2.51 – 3.25: Implemented |
| | 1.76 – 2.50: Less Implemented | 1.00 – 1.75: Not Implemented |

The assessment of the Muslim consumers shows different result as presented in Table 3. The over-all weighted mean of the 7Ps is only 2.33 which is interpreted to be less implemented. Remarkably, none of the elements of the marketing mix are evaluated to be well implemented. Among the 7Ps, promotion got the highest weighted mean of 2.59, and then followed by product with 2.53 weighted mean. Surprisingly, the ranking of the top two highest elements is the same with the assessment of the marketing personnel, but the mean scores are far lower and only interpreted as implemented. Likewise, people is also assessed by the consumers to be implemented with a weighted mean of 2.51, having a slight difference with product. All the remaining Ps of the marketing mix, namely, place with a weighted mean of 2.29, process with

a weighted mean of 2.28, physical evidence with a weighted mean of 2.13, and price with a weighted mean of 2.0 are evaluated as less implemented. This result would connote that consumers have viewed the strategies of the manufacturers not or less compliant to the requirements of halal.

Level of Effectiveness of the Marketing Strategies

To determine the effectiveness of the marketing strategies of the manufacturers, assessments of both the marketing personnel and consumers were considered.

Table 4: Assessment of the Marketing Personnel on the Level of Effectiveness of the Marketing Strategies

| 7Ps | Weighted Mean | Interpretation |
|--------------------------------------|-----------------------------|----------------------------|
| Product | 3.33 | Very Effective |
| Price | 3.16 | Effective |
| Place | 3.01 | Effective |
| Promotion | 3.41 | Very Effective |
| People | 3.12 | Effective |
| Process | 3.15 | Effective |
| Physical Evidence | 2.37 | Less Effective |
| Over-all Weighted Mean of 7Ps | 3.08 | Effective |
| <i>Legend:</i> | 3.26 – 4.00: Very Effective | 2.51 – 3.25: Effective |
| | 1.76 – 2.50: Less Effective | 1.00 – 1.75: Not Effective |

Based on the assessment of the marketing personnel on the level of the effectiveness of the marketing strategies, the over-all marketing strategy of the 7Ps is rated to be effective with an over-all weighted mean of 3.08. Promotion got the highest weighted mean of 3.41, and then preceded by product with a weighted mean of 3.33. This ranking is the same with the result of the assessment of the marketing personnel on the level of implementation of the strategies. The over-all mean scores of both elements are interpreted to be very effective. Most of the indicators of these two elements of the marketing mix were also assessed to be very effective. Thus, it indicates that the manufacturers have implemented well their promotion and product strategies, and they are able to achieve their objectives as they are very effective.

The four other Ps of the marketing mix, namely, price with a weighted mean of 3.16, process with a weighted mean of 3.15, people having a weighted mean of 3.12 and place with a weighted mean of 3.01 are rated as effective. Conversely, among the 7Ps, only physical evidence is assessed to be less effective with a weighted mean of 2.37. This result is also consistent with the assessment of marketing personnel on the level of implementation of the strategies.

As emphasized in the study of Varinli et al. (2016), manufacturers should strictly abide on Islamic laws and principles in order to satisfy Muslim consumers. It should also be noted that Muslims are aware of the regulation stipulated in the Al Quran and Sunnah regarding halal compliance towards business practices (Abdullah & Ahmad, 2010). Thus, they should ensure effective implementation of their marketing strategies.

Table 5: Assessment of the Muslim Consumers on the Level of Effectiveness of the Marketing Strategies

| 7Ps | Weighted Mean | Interpretation |
|--------------------------------------|-----------------------------|----------------------------|
| Product | 2.46 | Less Effective |
| Price | 1.93 | Less Effective |
| Place | 2.21 | Less Effective |
| Promotion | 2.51 | Effective |
| People | 2.44 | Less Effective |
| Process | 2.24 | Less Effective |
| Physical Evidence | 2.07 | Less Effective |
| Over-all Weighted Mean of 7Ps | 2.27 | Less Effective |
| <i>Legend:</i> | 3.26 – 4.00: Very Effective | 2.51 – 3.25: Effective |
| | 1.76 – 2.50: Less Effective | 1.00 – 1.75: Not Effective |

The assessment of the Muslim consumers on the level of effectiveness reveals different result with the evaluation of the marketing personnel. The over-all weighted mean of 2.27 is only assessed to be less effective. It is found that only one of the elements of the marketing mix is assessed to be effective which is promotion with a weighted mean of 2.51. All other elements were perceived to be less effective. Among the 7Ps, price got the lowest weighted mean of 1.93. Hence, this assessment is totally in contrast with the assessment of the marketing personnel as they have assessed the strategies of the manufacturers to be either very effective or effective. The findings on the effectiveness of the marketing strategies as perceived by the consumers were similar on the result of the study of Abdullah et al. (2013).

Difference on the Assessments of the Marketing Personnel and Muslim Consumers

The difference between the responses of the marketing personnel and the Muslim consumers on the implementation of the marketing strategies of halal certified food manufacturers are tested using independent sample t-test.

Table 6: Difference between the Assessments of the Marketing Personnel and the Muslim Consumers on the Level of Implementation of the Marketing Strategies

| 7Ps | T | Df | Sig. (2-tailed) | Mean Difference | Std. Error Difference | 95% Confidence Interval of the Difference | | Remarks |
|-------------------|-------|----|-----------------|-----------------|-----------------------|---|---------|-----------------|
| | | | | | | Lower | Upper | |
| | | | | | | t-test for Equality of Means | | |
| Product | 4.434 | 14 | 0.001 | 0.92125 | 0.20778 | 0.47561 | 1.36689 | Significant |
| Price | 9.422 | 14 | 0 | 1.2325 | 0.13081 | 0.95195 | 1.51305 | Significant |
| Place | 4.67 | 14 | 0 | 0.81875 | 0.17532 | 0.44274 | 1.19476 | Significant |
| Promotion | 3.907 | 14 | 0.002 | 0.88625 | 0.22681 | 0.39979 | 1.37271 | Significant |
| People | 6.485 | 10 | 0 | 0.70333 | 0.10845 | 0.46169 | 0.94497 | Significant |
| Process | 3.382 | 10 | 0.007 | 0.92667 | 0.274 | 0.31615 | 1.53718 | Significant |
| Physical Evidence | 1.786 | 10 | 0.104 | 0.69167 | 0.38724 | -0.17116 | 1.55449 | Not Significant |

The result of the test in Table 6 shows that there is a significant difference between the assessments of the marketing personnel with the Muslim consumers on the implementation of the marketing strategies on product, price, place, promotion, people and process. This would imply that the way the marketing personnel and consumers assessed the strategies truly vary.

It is evident in the results of the evaluation that the rating given by the personnel is far higher than the rating of the consumers in all elements of the marketing mix. This may relay an idea that the personnel are conservative on their assessment as they are also part of the company, while consumers are really strict on their standards in so far as halal is concern.

However, the assessments of the two groups of respondents are found to have no significant difference as to physical evidence. The result of the test matches the rating of the different respondents on the level of implementation. It resulted that only in physical evidence the assessments of the personnel and consumers coincides as both evaluation are interpreted as less implemented. Hence, it came out to have no significant difference.

Table 7: Difference between the Assessments of the Marketing Personnel and the Muslim Consumers on the Level of Effectiveness of the Marketing Strategies

| 7Ps | t-test for Equality of Means | | | | | | 95% Confidence | | Remarks |
|-------------------|------------------------------|----|-----------------|-----------------|-----------------------|----------------------------|----------------|-----------------|---------|
| | t | Df | Sig. (2-tailed) | Mean Difference | Std. Error Difference | Interval of the Difference | | | |
| | | | | | | Lower | Upper | | |
| Product | 4.434 | 14 | 0.001 | 0.92125 | 0.20778 | 0.47561 | 1.36689 | Significant | |
| Price | 9.422 | 14 | 0 | 1.2325 | 0.13081 | 0.95195 | 1.51305 | Significant | |
| Place | 4.67 | 14 | 0 | 0.81875 | 0.17532 | 0.44274 | 1.19476 | Significant | |
| Promotion | 3.907 | 14 | 0.002 | 0.88625 | 0.22681 | 0.39979 | 1.37271 | Significant | |
| People | 6.485 | 10 | 0 | 0.70333 | 0.10845 | 0.46169 | 0.94497 | Significant | |
| Process | 3.382 | 10 | 0.007 | 0.92667 | 0.274 | 0.31615 | 1.53718 | Significant | |
| Physical Evidence | 1.786 | 10 | 0.104 | 0.69167 | 0.38724 | -0.17116 | 1.55449 | Not Significant | |

To statistically test the possible difference between the assessments of the marketing personnel and Muslim consumers on the level of effectiveness of the marketing strategies, independent sample t-test was also employed. As shown in Table 7, the result reveals that the assessments of the marketing personnel and Muslim consumers are significantly different in all elements of the marketing mix except for physical evidence. This result is the same with the test conducted on the level of implementation which may also give similar implications.

Conclusions

Based on the assessment of marketing personnel, it is concluded that the marketing strategies of halal certified food manufacturers in the selected provinces of Mindanao are halal compliant in terms of product, price, place, promotion, people and process as these elements are evaluated to be at least implemented and effective. However, based on the evaluation of the Muslim consumers, it is concluded that the marketing strategies of halal certified food manufacturers are only halal compliant on product, promotion and people as these elements are assessed to be implemented, but have failed to meet the halal standards with regard to price, place, process and physical evidence as these elements are found to be less implemented and less effective. Finally, given the findings from the responses of both respondents, it is concluded that the assessments of the marketing personnel and the Muslim consumers on the marketing strategies of the halal certified food manufacturers vary significantly in all elements of the marketing mix, except for physical evidence.

Recommendations

Considering the findings of the study, the manufactures should prioritize in addressing the halal compliance of the strategies that are assessed to be less or totally not implemented and less or totally not effective by the Muslim consumers. Necessary efforts should be exerted to improve the implementation of those least compliant strategies. The manufacturers should also revisit all strategies that are evaluated to be implemented and effective by both the marketing personnel and Muslim consumers. As there is still a chance to make them well implemented and very effective, the manufacturers should conduct a critical review on these specific strategies, and then make necessary efforts to enhance their halal compliance and effectiveness. The manufacturers should ensure to continually consider the evaluation and feedbacks of the customers on their products so they will have basis on the areas of their strategies to improve. Importantly, halal authorities should continually and critically review the existing guidelines on halal operation. Strict implementation of the guidelines should be observed to guarantee compliance of the halal certified manufacturers.

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THE INFLUENCE OF HALAL LOGO ON THE PURCHASING BEHAVIOR OF MUSLIM FILIPINOS: A STRUCTURAL EQUATION MODELLING

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Abstract: *The study investigated the influence of halal logo on the purchasing behavior of Muslim Filipinos. Moreover, it assessed the knowledge, attitude and the perceived issues of consumers toward halal logo, thereby gain a deeper understanding of the critical factors that shape consumer behavior. A quantitative research design was employed, utilizing a structured questionnaire administered to a sample of 400 Muslim Filipino consumers. Cronbach's alpha was tested to assess the reliability of the instrument. The instrument was also validated by research experts to ensure its functionality. Furthermore, the validity of the instrument was measured by convergent validity test. Descriptive statistics and PLS-Structural Equation modelling were used to analyze the data gathered. The findings of the study revealed the important role of Halal logo in influencing consumers' purchasing behavior. The respondents expressed a strong commitment to checking for the Halal logo, double-checking its presence, and exclusively buying products with the Halal logo. They are willing to pay a premium for products with the Halal certification, highlighting the importance of the logo as a guiding factor in their decision-making process. Based on the PLS-SEM, the attitude and the issues perceived by the Muslim consumers on products with halal logo have an influence on their purchasing behavior. With these findings, it is recommended that consumer protection measures be intensified to safeguard the rights and interests of Muslim Filipino consumers. Regulatory agencies, manufacturers, and retailers should ensure accurate and reliable halal certification processes and enforce strict adherence to Halal standards. Importantly, efforts should be made to raise awareness among Muslim consumers about the significance of the halal logo and the assurance it provides in terms of product quality and compliance with religious requirements.*

Keywords: *Halal, Halal Logo, Purchasing Behavior, Muslim Filipinos, Structural Equation Modelling*

Introduction

The dynamics of consumer behavior are always changing in a society that is continuously globalizing due to cultural, religious, and ethical factors. For Muslim consumers, the idea of Halal, which includes not just food preferences but also different elements of their everyday lives, including consumer goods and services, is one important factor that significantly influences their purchasing choices. The Halal logo, a representation of adherence to Islamic moral and dietary norms, has grown in popularity among consumers.

Islam is a belief system that aims to help people attain their greatest potential, especially in terms of cleansing and purification. Islam instills in its adherents an unequalled drive to attain absolute purity and to completely forego all impurities. The terms Halal (lawful) and Haram (unlawful) are relevant at this point. The term halal denotes what is permitted and Haram denotes what is forbidding. Therefore, Muslims should ardently preserve what Islam permits (Halal) and vigorously oppose what Islam forbids (Haram).

The presence of a halal logo serves as an important marker for Muslim consumers when making purchase decisions. It signals the adherence of a product to specific religious standards, instilling confidence and trust among Muslim consumers regarding its suitability for consumption. Several empirical studies have examined the effect of halal labeling on consumer attitudes and behavior, shedding further light on the significance of this logo in influencing purchasing decisions.

Anam et al., (2018) conducted a study in Malaysia to conceptualize the relationship between the halal logo, perceived product quality, and the role of consumer knowledge. The empirical data gathered from the study suggests that consumer knowledge plays a crucial role in the influence of the halal logo on purchasing behavior. Moreover, in a study by Khan et al., (2017) on the consumer behavior of halal-endorsed products in an emerging Muslim market, empirical data revealed that the presence of a halal logo significantly influenced consumer attitudes and purchase intentions. The study highlighted the importance of halal certification as a trust-building mechanism for Muslim consumers and emphasized the need for strict consumer protection measures regarding halal labeling.

By considering the aforementioned studies, it is evident that the presence of the halal logo exerts a significant influence on the purchasing behavior of Muslim consumers. However, the specific influence of the halal logo on the purchasing behavior of Muslim Filipinos remains relatively unexplored. Thus, this study aimed to address this gap by investigating the influence of the halal logo on the purchasing behavior of Muslim Filipinos. Specifically, it analyzed the influence of knowledge, attitude and issues perceived by consumers on halal logo towards their buying behavior using structural equation modelling. The findings of the study can provide valuable insights on the halal management and contribute to the development of an intensified consumer protection.

Conceptual Framework

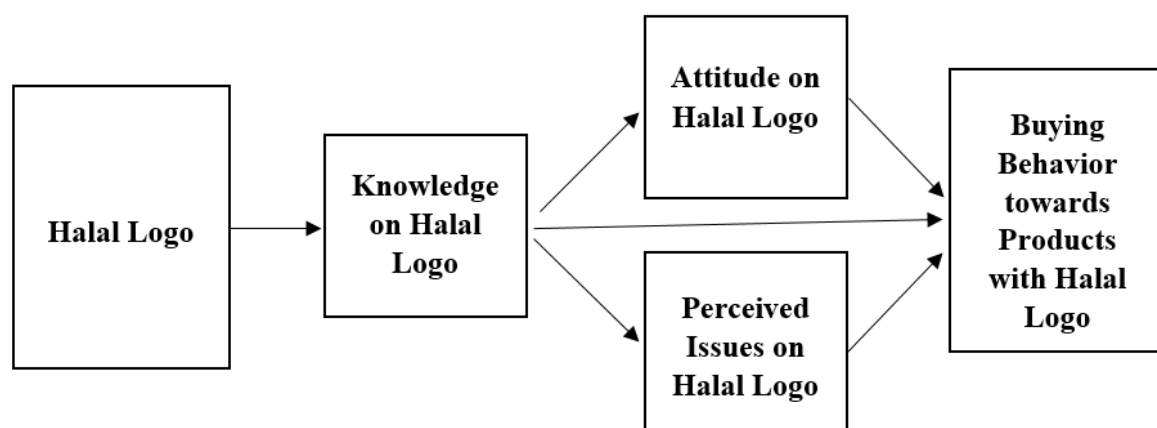


Figure 1: Conceptual Framework

The framework in Figure 1 shows the influence of the halal logo on the purchasing behavior of Muslim Filipino consumers. It specifically assessed the influence of knowledge, attitude and the perceived issues on halal logo towards the buying of consumers on products with halal logo. This framework provides a structure for studying the relationship between the halal logo and the purchasing behavior of Muslim Filipino consumers. The study used the Knowledge, Attitude, and Practice (KAP) model theory and the Theory of Planned Behavior (TPB) to examine the influence of the Halal logo on the purchasing behavior of Muslim Filipinos.

Hypotheses

Based on the framework, the following null hypotheses were tested at 0.05 level of significance:

1. There is no significant and positive influence between the level of knowledge of the respondents and their attitude toward the halal logo.
2. There is no significant and positive influence between the level of knowledge of the respondents and their perceived issues with the halal logo.
3. There is no significant and positive influence between the level of knowledge of the respondents on the halal logo and their buying behavior towards products with the halal logo.
4. There is no significant and positive influence between the attitude of the respondents toward the halal logo and their buying behavior towards products with the halal logo.
5. There is no significant and negative influence between the perceived issues of the respondents on the halal logo and their buying behavior towards products with the halal logo.

Literature Review

Factors Influencing Consumer Behavior towards Halal Products

Several studies have delved into the various factors that influence consumer behavior towards Halal products, shedding light on the complexities of this phenomenon. Billah et al. (2020) conducted a comprehensive case study on Halal food, exploring the factors that shape consumer behavior in this context. Their findings highlighted several key determinants that impact consumers' decision-making processes.

In another study by Khan et al. (2017), conducted in an emerging Muslim market, several additional factors influencing consumer behavior towards Halal-endorsed products were identified. Religious practices were found to be a significant factor, as consumers who adhere more strictly to religious practices exhibit a higher preference for Halal products. The study emphasized that religious teachings and cultural norms heavily influence consumer behavior in the context of Halal consumption.

Certification and trust were also identified as influential factors. Consumers rely on Halal certification as an assurance of compliance with Islamic dietary laws. Trust in the certification process, certification bodies, and brands offering Halal products plays a crucial role in influencing consumer behavior. The study highlighted the importance of clear and transparent certification procedures to build consumer trust.

Influence of Halal Logo on Consumer Purchasing Behavior

Shaari et al. (2019) conducted a study specifically focusing on consumer purchase intentions of Halal packaged food products. Their findings revealed that the presence of the Halal logo had a significant positive impact on consumer behavior. When consumers encountered the Halal logo on packaged food products, it enhanced their trust and confidence in the product's compliance with Halal standards. Consequently, consumers were more likely to make a purchase decision in favor of Halal products that displayed the logo.

Maison et al. (2018) conducted a study in Indonesia to compare the influence of explicit and implicit Halal information on consumer perceptions and purchasing decisions. They examined the effects of both explicit Halal labeling (where the Halal logo was explicitly displayed) and implicit Halal labeling (where Halal information was incorporated into the product description without explicitly displaying the logo). The study found that the presence of the Halal label, whether explicit or implicit, positively influenced consumer perceptions and purchase intentions. Consumers perceived products with Halal labeling as more trustworthy, safe, and suitable for their consumption preferences.

Perdana et al. (2018) proposed a research framework in the context of the Middle East and North Africa, examining the role of Halal certification in influencing the purchase intention of Muslim consumers. The empirical findings demonstrated the significant mediating role of Halal certification in shaping consumers' purchase intentions. This empirical evidence further emphasizes the importance of the Halal logo in influencing purchasing behavior.

Suki and Salleh (2018) conducted a study in Malaysia to investigate the mediating effect of Halal image on Muslim consumers' intention to patronize retail stores. The empirical findings revealed that the Halal image played a significant role in influencing consumers' perception and loyalty towards Halal-certified retail stores. This additional empirical data highlights the impact of the Halal logo on overall consumer behavior and store choice.

Billah et al. (2020) conducted a case study on Halal food consumption behavior among Muslim and non-Muslim consumers. The empirical findings highlighted several factors that influence consumer behavior, including religious beliefs, product quality, price, and availability. This additional empirical data provides a broader understanding of the complexities surrounding consumer behavior in relation to Halal products.

Role of Consumer Knowledge and Attitudes in Halal Consumption

Anam et al. (2018) conducted a study that aimed to conceptualize the relationship between the Halal logo, perceived product quality, consumer knowledge, and attitudes towards Halal products. They found that consumer knowledge about Halal certification and its associated standards significantly influenced their attitudes towards Halal products. Consumers with a higher level of knowledge demonstrated more positive attitudes towards Halal products, perceiving them as safer, more trustworthy, and of higher quality. The Halal logo served as a cue for consumers to identify and differentiate Halal products, thus influencing their overall attitudes towards these products.

Cross-cultural Perspectives on Halal Acceptance

Kawata et al. (2017) conducted a study to examine the acceptance of imported products with a Halal logo in Malaysia and Japan. The research highlighted the relevance of Halal certification for non-Muslim consumers in both countries. It revealed that the presence of the Halal logo positively influenced the purchase decisions of non-Muslim consumers, indicating that Halal certification serves as a quality assurance marker, instilling confidence and trust in the products.

Methods

Design and Locale

This study is predominantly quantitative research as it collected numerical data to achieve the purpose of the study. The study was conducted in Mindanao particularly between two (2) regions in the island with the highest number of Muslim population – the Bangsamoro Autonomous Region in Muslim Mindanao (BARMM), and Northern Mindanao (Region X)

Participants

The respondents of the study were the Muslim consumers who are at least 18 years old residing either in BARMM or in Northern Mindanao. Using Cochran's formula, a sample size of 400 Muslim consumers are considered as respondents of the study. Stratified random sampling was employed to ensure proportionate samples are taken from each region.

Instruments

A structured questionnaire was developed to collect relevant data for the study. The instrument is guided by several related studies (Temizkan, 2022; Yener, 2022; Damit, et. al, 2017). Cronbach's alpha was tested to assess the reliability of the instrument. The instrument was also validated by research experts to ensure its functionality. Furthermore, the validity of the instrument was measured by convergent validity test. An analysis of discriminant validity were undertaken. The result of the tests are presented in Table 1 and 2 below.

Table 1: VIF, Factor Loadings, Composite Reliability, Cronbach's Alpha, AVE

| Constructs | Items | VIF | Factor Loadings | Composite Reliability | Cronbach's Alpha | AVE |
|------------------|-------------|-------|-----------------|-----------------------|------------------|-------|
| Knowledge | Knowledge_1 | 2.479 | 0.826 | 0.913 | 0.881 | 0.677 |
| | Knowledge_2 | 2.1 | 0.79 | | | |
| | Knowledge_3 | 2.249 | 0.825 | | | |
| | Knowledge_4 | 2.024 | 0.816 | | | |
| | Knowledge_5 | 2.341 | 0.855 | | | |
| Attitude | Attitude_1 | 2.584 | 0.859 | 0.925 | 0.898 | 0.714 |
| | Attitude_2 | 3.217 | 0.879 | | | |
| | Attitude_3 | 2.889 | 0.879 | | | |
| | Attitude_4 | 3.48 | 0.896 | | | |
| | Attitude_5 | 1.5 | 0.696 | | | |
| Perceived Issues | Perceived_1 | 1.887 | 0.815 | 0.896 | 0.855 | 0.633 |
| | Perceived_2 | 1.653 | 0.747 | | | |
| | Perceived_3 | 1.743 | 0.798 | | | |
| | Perceived_4 | 2.242 | 0.85 | | | |
| | Perceived_5 | 1.806 | 0.764 | | | |
| Buying Behavior | Behaviour_1 | 2.072 | 0.793 | 0.9 | 0.861 | 0.643 |
| | Behaviour_1 | 2.491 | 0.854 | | | |
| | Behaviour_1 | 2.112 | 0.75 | | | |
| | Behaviour_1 | 2.6 | 0.829 | | | |
| | Behaviour_1 | 1.756 | 0.778 | | | |

As presented in Table 1, the reliability analysis showed that the Cronbach's alpha values for Knowledge, Attitude, Perceived Issues, and Buying Behavior are 0.881, 0.898, 0.855, and 0.861, respectively. As the Cronbach's alphas in this study were all much higher than 0.7, the constructs were considered to have adequate reliability (Taber, 2018). The standardized loadings on the factors are also examined and values varied from 0.747 to 0.896. Standardized factor loadings were higher than the minimum threshold of 0.6 proposed by Bagozzi and Yi (1988). Furthermore, the composite reliability (CR) estimates and Average Variance Extracted are also beyond the recommended value of 0.70 and 0.50, respectively (Hair et al., 1998).

Table 2: Discriminant Validity (Fornell-Larcker)

| | <i>Attitude</i> | <i>Behavior</i> | <i>Knowledge</i> | <i>Perceived</i> |
|------------------|-----------------|-----------------|------------------|------------------|
| <i>Attitude</i> | 0.845 | | | |
| <i>Behavior</i> | 0.557 | 0.802 | | |
| <i>Knowledge</i> | 0.670 | 0.396 | 0.823 | |
| <i>Perceived</i> | 0.321 | 0.483 | 0.284 | 0.796 |

Discriminant validity was also assessed in this study where the square root of the average variance extracted (AVE) of each dimension is 0.845 for Attitude, 0.802 for Behavior, 0.823 for perceived knowledge, and 0.796 for privacy concerns. Below these values are the correlation coefficient of each dimension. Its maximum value does not exceed the aforementioned values therefore, each construct in this research model has good discriminant validity. The assessment of the reliability and validity results revealed satisfactory results, establishing the measurement model's reliability and validity.

Data Collection Procedures

Survey was mainly used to collect relevant data. A pre-survey was conducted to 20 respondents to ensure the functionality of the survey instrument. The responses to the questionnaires was screened to identify incidence of non-response to any question and evaluate the trend of responses. The result of the pre-survey was used to test the reliability and validity of the instrument. Experts on the field being studied as well as researchers were also consulted to ensure the validity of the instrument before it will be used for actual survey.

The researcher prepared a letter of permission to seek proper consent from the actual respondents. During the actual survey, instruments was translated using local dialect to the participants who have difficulty in understanding English, and instruction was thoroughly explained to ensure better understanding.

Data Analysis

The data gathered were processed and analyzed using descriptive statistics and structural equation modelling (SEM). SEM is a powerful, multivariate technique found increasingly in scientific investigations to test and evaluate multivariate causal relationships. SEMs differ from other modelling approaches as they test the direct and indirect effects on pre-assumed causal relationships (Fan et al., 2016).

The PLS–SEM is similar to the analysis of multiple regression, which investigates relationships by focusing less on the measurement model (Hair et al., 2017). This technique has been applied in many studies to examine the relationship between constructs (Henseler et al., 2015; Bahar et al., 2020; Hossain et al., 2021).

Ethical Considerations

Ethical considerations played a pivotal role in our research. An informed consent was obtained from all participants and their anonymity and confidentiality were ensured. Furthermore, the research was conducted in accordance with ethical guidelines and approval from the appropriate institutional review board.

Results

The level of knowledge, attitude and issues perceived by the consumers on Halal logo are assessed.

Knowledge on Halal Logo

Table 3: Knowledge of the Respondents on Halal Logo

| Statement | Mean | SD | Qualitative Equivalent |
|--|-------------|-------------|------------------------|
| 1. I know that Halal logo is used to identify products that have been processed in accordance with Islamic principles. | 3.73 | 0.47 | Strongly Agree |
| 2. I know that Halal logo is a certification given to products that are Halal according to Islam. | 3.72 | 0.48 | Strongly Agree |
| 3. I know that Halal logo guarantees that the product contains no haram ingredients. | 3.66 | 0.54 | Strongly Agree |
| 4. I know that Halal logo assures quality, hygiene and safety compliance of the product. | 3.57 | 0.63 | Strongly Agree |
| 5. I know that the presence of the Halal logo indicates that the products meet Islamic dietary guidelines. | 3.6 | 0.58 | Strongly Agree |
| Overall | 3.66 | 0.54 | Strongly Agree |

As presented in Table 3, the findings suggest that the respondents have a commendable level of knowledge regarding the halal logo and its role in ensuring compliance with Islamic principles and dietary guidelines. Their strong agreement across the statements demonstrates a comprehensive understanding of the purpose and significance of the halal logo in product labeling. Notably, the findings coincide with previous research that emphasizes the importance of accurate labeling and appropriate marketing strategies for halal products (Nasir et al., 2020). Accurate labeling, specifically through the use of the halal logo, enables Muslim consumers to easily identify and select products that meet their halal requirements.

Attitude on Halal Logo

The interpretation of the data in Table 4 reveals that the respondents possess a strong positive attitude towards the halal logo. Their agreement across the statements indicates their belief in the safety, healthiness, wisdom, and positive benefits associated with products carrying the halal logo. This positive attitude reflects a sense of trust and confidence in the certification process and the adherence of Halal-certified products to Islamic principles and dietary guidelines. The findings align with previous research that highlights the importance of consumer attitudes towards the Halal logo and its impact on purchase behavior (Alam, 2019). Positive attitudes towards the Halal logo can significantly influence consumers' purchasing decisions and increase their likelihood of choosing halal-certified products. This is particularly relevant for Muslim consumers who prioritize religious and dietary requirements in their consumption choices.

Table 4: Attitude of the Respondents on Halal Logo

| Statement | Mean | SD | Qualitative Equivalent |
|---|-------------|-------------|------------------------|
| 1. I feel good to buy products with Halal logo as it safer and healthier to consume. | 3.62 | 0.6 | Strongly Agree |
| 2. I feel assured that purchasing products with Halal logo is a wise choice. | 3.58 | 0.62 | Strongly Agree |
| 3. Purchasing products with the Halal logo gives me peace of mind. | 3.59 | 0.61 | Strongly Agree |
| 4. I am convinced of the good benefits I could get in consuming products with Halal logo. | 3.51 | 0.63 | Strongly Agree |
| 5. It is critical for me to purchase and consume products bearing the Halal logo. | 3.35 | 0.85 | Strongly Agree |
| Overall | 3.53 | 0.66 | Strongly Agree |

Issues Perceived on Halal Logo

The overall interpretation on the data presented in Table 5 suggests that the respondents have significant concerns about the legitimacy and credibility of halal logos in the market. These concerns include the existence of fake logos, uncertainty about the appropriateness of different logos, skepticism towards certain certifiers, and the misappropriation of Islamic imagery and terminology. These findings align with previous research that has highlighted the challenges and issues surrounding halal certification, including the need for standardization, regulation, and transparency (Bhuiyan et al., 2020).

Table 5: Issues Perceived by the Respondents on Halal Logo

| Statement | Mean | SD | Qualitative Equivalent |
|---|-------------|-------------|------------------------|
| 1. Due to the prevalence of fake Halal logos, I am concerned about the legitimacy of the Halal emblems that appear on the packaging of various items. | 3.53 | 0.66 | Strongly Agree |
| 2. With so many Halal logos on the market today, I'm not sure which one is appropriate. | 3.44 | 0.67 | Strongly Agree |
| 3. With so many Halal logos on the market today, I'm not sure which one is appropriate. | 3.46 | 0.64 | Strongly Agree |
| 4. I lost trust in some Halal certifiers because I believe it has become a money-making enterprise. | 3.34 | 0.7 | Strongly Agree |
| 5. I have noticed the misappropriation of Islamic pictures and terminology on product packaging in order to associate them with the Halal logo. | 3.35 | 0.65 | Strongly Agree |
| Overall | 3.42 | 0.66 | Strongly Agree |

Buying Behavior Towards Products with Halal Logo

The finding as shown in Table 6 reveals that the respondents highly value the Halal logo in their buying decisions. Their sense of obligation, the practice of double-checking, the preference for products with both the logo and 100% Halal ingredients, and the willingness to pay a premium all indicate the strong influence of the Halal logo on their purchasing behavior. These findings are consistent with previous research that emphasizes the central role of the Halal logo in guiding the choices of Muslim consumers and their willingness to pay a premium for Halal-certified products (Syed Alwi et al., 2011).

Table 6: Buying Behavior of the Respondents Towards Products with Halal Logo

| Statement | Mean | SD | Qualitative Equivalent |
|---|-------------|------------|------------------------|
| 1. When purchasing goods, I always check for the Halal logo since it is my obligation as a Muslim to be mindful of what I purchase and consumer | 3.56 | 0.55 | Strongly Agree |
| 2. Before purchasing goods, I double-check the Halal logo. | 3.47 | 0.61 | Strongly Agree |
| 3. I exclusively buy products with the Halal logo because Muslims are compelled to consume such products. | 3.1 | 0.85 | Agree |
| 4. I only buy products that contain 100% Halal ingredients and bear the Halal logo. | 3.16 | 0.8 | Agree |
| 5. I purchase products with Halal logo even though it is more expensive than those without Halal certification. | 3.34 | 0.69 | Strongly Agree |
| Overall | 3.33 | 0.7 | Strongly Agree |

Hypothesis Testing

The hypotheses formulated in the study were tested. The result of the tests is presented in the table below.

Table 8: Relationship of Tested Variables (Knowledge, Attitude, Perceived Issues, Buying Behavior)

| Significant Relationship Between 2 Variables | Original sample (O) | t- statistics | P values | Decision |
|--|---------------------|---------------|----------|---------------------|
| Knowledge -> Attitude | 0.67 | 16.116 | 0 | Reject Ho |
| Knowledge -> Behavior | 0 | 0.003 | 0.998 | Failed to Reject Ho |
| Knowledge -> Perceived Issues | 0.284 | 6.046 | 0 | Reject Ho |
| Attitude -> Behavior | 0.448 | 6.744 | 0 | Reject Ho |
| Perceived Issues -> Behavior | 0.339 | 6.962 | 0 | Reject Ho |

Table 8 presents the findings of the path coefficient analysis, which was done to determine the relationship between the dependent and independent variables. To determine significant path coefficients the T-statistics must have a value greater than 1.96 or p-value of less than 0.05. The following are the results of the assessment of the path coefficient with their corresponding t-statistic and the p-values of the hypothesized relationships.

1. Knowledge on Halal Logo significantly influenced Attitude on Halal Logo because it had a t-statistic value of 16.116 or higher than 1.96 and a p-value of 0.00 or lower than 0.05. The positive influence was indicated by the original sample value (path coefficient) of 0.670.
2. Knowledge on Halal Logo had no significant influence on Purchasing Behavior Towards Products with Halal Logo because it had a t-statistic value of 0.003 or lower than 1.96 and a p-value of 0.998 or higher than 0.05.
3. Knowledge on Halal Logo significantly influenced Perceived Issues on Halal Logo because it had a t-statistic value of 6.046 or higher than 1.96 and a p-value of 0.000 or lower than 0.05. The positive influence was indicated by the original sample value (path coefficient) of 0.284.
4. Attitude on Halal Logo significantly influenced Purchasing Behavior Towards Products with Halal Logo because it had a t-statistic value of 6.744 or higher than 1.96 and a p-value of 0.000 or lower than 0.05. The positive influence was indicated by the original sample value (path coefficient) of 0.448.
5. Perceived Issues on Halal Logo significantly influenced Purchasing Behavior Towards Products with Halal Logo because it had a t-statistic value of 6.962 or higher than 1.96 and a p-value of 0.000 or lower than 0.05. The positive influence was indicated by the original sample value (path coefficient) of 0.339.

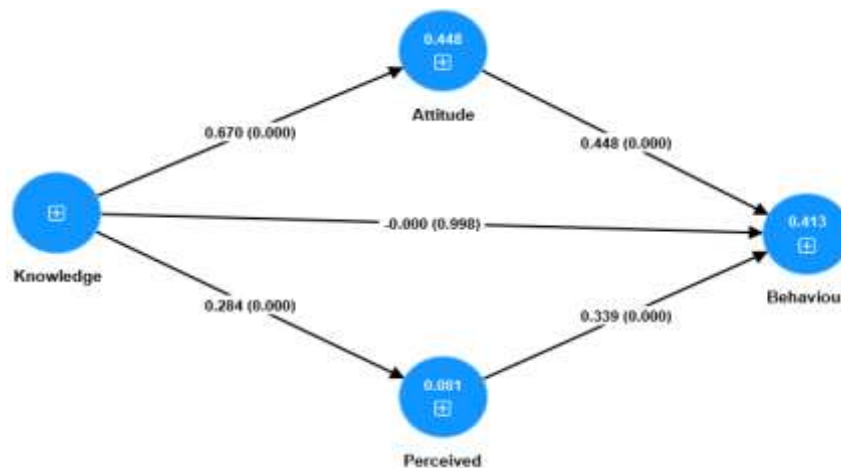


Figure 2: Model of PLS-SEM Path Analysis Diagram

Figure 2 shows the R-Square value of the dependent variable in this study, namely Purchase Behavior of 0.413, which would mean that the independent variables in the study namely, Knowledge on Halal Product, Attitude on Halal Logo and Perceived Issues on Halal Logo can influence the Purchasing Behavior of the consumers towards Products with Halal Logo of 41.3%. Path coefficients displayed in Table 8 are also presented in the Figure with their corresponding p-values to easily compare and identify significant paths in the model.

Conclusions

It is found in this study that Muslim consumers have high level of knowledge with regard to the use and importance of halal logo. It is also evident that they have a favorable attitude towards products with halal emblem. However, consumers have viewed some valid issues on halal logo that needs to be addressed by halal certifiers. These issues have affected the trust and integrity of halal logo in the eyes of the customers. Finally, the study clearly revealed that halal logo can significantly influence the purchasing behavior of the Muslim customers; thus, need to be given importance by manufacturers and halal authorities.

Recommendations

Based on the findings and conclusions of the study, the following are recommended:

1. *Enhance transparency and regulation.* To address concerns about the legitimacy of Halal logos, there is a need for greater transparency and regulation in the Halal certification process. Implementing stricter standards, conducting regular audits, and ensuring third-party verification can help build trust among consumers and ensure the authenticity of Halal certifications.
2. *Educate and empower consumers:* Many respondents expressed uncertainty about which Halal logos are appropriate and reliable. Therefore, efforts should be made to educate consumers about recognized and trustworthy Halal certifiers. Providing accessible and accurate information about the certification process, the criteria for Halal products, and the significance of the Halal logo can help consumers make informed decisions.
3. *Strengthen enforcement against misappropriation:* Respondents also noted the misappropriation of Islamic imagery and terminology on product packaging to falsely associate them with the Halal logo. Authorities and relevant organizations should

enforce stricter regulations to prevent such practices, ensuring that the use of Islamic symbols and language is respectful, accurate, and aligned with the Halal standards.

4. *Foster collaboration and standardization:* Collaboration among Halal certification bodies and stakeholders is crucial to establish uniform standards and criteria for Halal products and logos. Harmonizing certification processes, establishing mutual recognition agreements, and promoting international cooperation can help reduce confusion among consumers and provide a consistent and reliable Halal certification framework.
5. *Address affordability concerns:* While respondents expressed a willingness to pay a premium for Halal products with the logo, it is important to address affordability concerns. Manufacturers and retailers should strive to make Halal-certified products more accessible and competitively priced, ensuring that cost does not become a barrier for consumers seeking Halal options.
6. *Leverage digital platforms:* With the rise of e-commerce and digital platforms, it is essential to leverage technology to enhance the visibility and traceability of Halal products. Developing online databases or mobile applications that provide accurate and up-to-date information on Halal certifications can empower consumers to verify products easily and make informed choices.
7. *Continuous research and feedback:* The Halal market is dynamic and evolving, and continuous research is needed to stay updated on consumer preferences, concerns, and emerging trends. Collecting feedback from consumers, conducting market studies, and monitoring consumer perceptions can provide valuable insights for businesses and certifying bodies to adapt their strategies and meet the changing demands of the market.

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DETERMINANTS OF SOCIAL RESPONSIBILITY PERFORMANCE AMONG MARAWI CITY BUSINESS ENTERPRISES

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Abstract: *Along with the rising number of business enterprises, there is also a growing importance of social responsibility in business. However, there is a lack of visible CSR initiative being implemented among the local business enterprises despite the known importance of CSR to a company's reputation and impact to overall business success. This research sought to determine the various factors affecting the implementation of CSR. This particularly includes the business profile, the level of understanding about the importance of CSR in terms of western and Islamic concepts and the extent of the business enterprise involvement to environmental, ethical, legal and philanthropic initiatives. This study adopted quantitative-correlational research. Data was collected through a questionnaire from a total sample of 246 respondents whose business establishments were visibly operating in Marawi City. The data was analyzed using statistical tools such as Frequency distribution, Weighted Mean, Kruskal-Wallis Test, and Spearman's Correlation Test. Although there appears to be a lack of involvement in CSR at first glance, it is clear from the data that CSR activities are prevalent despite the fact that the majority of the firms operating in the city have a low net income. Consequently, Marawi business enterprises understanding on the importance of CSR in terms of western concept expressed an overall slightly agree or fair understanding. The same result also can be gleaned with the business enterprises understanding on the Islamic concept of CSR with an overall response of slightly agree or fair understanding. Further, the business enterprises were often involved with environmental, legal, ethical and philanthropic responsibilities.*

Keywords: *Social Responsibility, Business Enterprises, Islamic CSR Framework, Marawi City*

Introduction

Philanthropy, or the altruistic concern for human welfare and development, is something that Filipinos do naturally. The Filipino community engages in philanthropy frequently because it is profoundly ingrained in their cultural traditions, such as the Bayanihan—a Filipino custom that symbolizes "brotherhood" (APEC, 2005). Bayanihan is amply demonstrated by the mutual respect and aid that is shown to one another. Because it is in their nature, Filipino businesses naturally assist other people and enterprises. The fact that there appears to be a natural junction between philanthropy and the practice of business is one of the things the business community in the Philippines can be proud of. Due to this intrinsic quality, two Filipino women, Tessie Sy-Coson and Rina Lopez-Bautista, have been named to Forbes' list of Asia's Top 15

Philanthropists, a group of well-known entrepreneurs and business tycoons who have shown a strong personal dedication to a variety of causes (Gonzales, 2021).

It is not surprising to see Filipino business owners committed to Corporate Social Responsibility (CSR) performance because charity is ingrained in Filipino culture. As was already mentioned, Filipinos not only participate but also do well. Carroll (1979) defined CSR as including the current economic, legal, ethical, and discretionary demands society has of corporations. In fact, according to Maximiano (2005), 72% of Philippine corporations believe that strong corporate citizenship is very important, making CSR more than just a secondary concern for commercial enterprises. CSR is unquestionably vital for a company's reputation, appeal to customers, employees, and investors, as well as for keeping top talent and overall commercial success—especially with the growing number of business establishments.

CSR definitely has a growing importance in the country in fact, 209 legislators voted in support of House Bill 6137, or the proposed Corporate Social Responsibility Act, in 2020; neither a vote against it nor an abstention were recorded. The purpose of the bill is to promote corporate social responsibility among all domestic and foreign commercial companies that are registered and conducting business in the Philippines. To manage and carry out CSR programs, some firms have created CSR committees or departments. Common focus areas include community involvement, employee wellbeing, and environmental sustainability.

Early CSR adopters in the Philippines come from strong business networks, such as the Metro Pacific Investments Corporation (MPIC), which has been carrying out CSR projects since 2009. In 2022, MPIC just scored big at the 11th Asian Excellence Awards, garnering six prestigious recognitions for corporate social responsibility, investor relations, and governance. MPI Foundation's (MPIF) strategic programs are now focused on four pillars of social infrastructure: education, the environment, economic empowerment, and disaster response and relief operations.

There are several big industries in the Philippines that actively participate in CSR activities. Ligo Sardines, for instance was one of the first companies to pledge their advertising budget in support of relief operations for those affected by the quarantine and frontliners. San Miguel Corporation, on the other hand, has also begun making bread that is nutrient-rich and inspired by the Nutri-Bun to aid humanitarian organizations and local communities combat hunger. Coca-Cola has rerouted P150 millions of its advertising budget to support relief and response activities in the wake of the COVID-19 outbreak that has struck the nation. These companies largely operate in urbanized areas and yet were able to make a positive impact on their community.

These collective CSR efforts demonstrated above nevertheless is also needed in a lesser developed city like that of Marawi. The Islamic City of Marawi, is a 4th class component city and capital of the province of Lanao del Sur, Philippines. The people of Marawi—the Maranaos, is one of the largest Islamic groups in the Philippines. With Marawi's exquisite food, wood crafts and textiles, Marawi City is definitely the center of commerce in Lanao del Sur. Before the siege, it was renowned for its soaring mosques, rows of substantial concrete homes, cultural and art institutions, and bustling commercial districts.

Marawi City is no stranger to certain philanthropic activities ranging from free education or torils for orphans, fundraising events for the construction of masjids and madrasahs, to various

charity works that were commonly initiated by private individuals who simply have genuine intentions to help the community. On May 23, 2017, the city suffered massive urban gunfight which has exacerbated the socio-economic conditions in the conflict-affected areas.

In the immediate aftermath of the crisis, poverty is anticipated to rise in Lanao del Sur due to the region's declining economy, rising unemployment, and rising food costs during the initial emergency assistance phase. According to ADB simulations of the conflict's effects on poverty, the number of people living below the poverty line could rise by about 150,000 as a result of the severity of the damage in Marawi, the destruction of public services and infrastructure, and the high proportion of families who were already at risk of poverty before the conflict. The Marawi's poor economic conditions at that time could not be alleviated solely by relying on the charitable efforts of its private citizens. This has further emphasized the need for businesses to practice CSR activities.

Corporate Social Responsibility concepts are very much consistent with concepts that are highly valued in Islam. Islam is based on the principle of personal responsibility. Every Muslim is responsible to his Creator for his own actions as well as those of others for whom he may be responsible and for things over which he has control. Islam brought about a social revolution in the environment in which it was originally revealed because it is based on morality and responsibility on both an individual and community level. The Qur'an uses words like equality, justice, fairness, brotherhood, kindness, compassion, solidarity, and freedom of choice to describe collective morality which are very much present in the principles pushed in corporate social responsibility. Leaders are in charge of putting these ideas into practice and are answerable to both God and people for their management (Bassiouni, 2012). Hence, the consistency of these Islamic concepts with corporate social responsibility presents the possibility for this research to develop an Islamic social responsibility framework that mirrors closely the values practiced by Maranao entrepreneurs.

Literature Review

Corporate Social Responsibility Act

The House of Representatives approved on second reading House Bill 9061, principally authored by former President and now Speaker Gloria Macapagal-Arroyo, which seeks to encourage all business organizations established and operating under Philippine laws, whether domestic or foreign, to observe corporate social responsibility in the operation of their businesses in the country (Press and Public Affairs Bureau, 2019). According to Speaker Arroyo, many firms and other commercial corporations, in particular, have demonstrated very little concern for the welfare of society, the neighborhood in which they operate, and the surrounding natural environment. According to the proposed "Corporate Social Responsibility Act," the State acknowledges the private sector's crucial contribution to nation-building and shall encourage its active involvement in promoting economic development and environmental protection in the nation. As a result, the government will coordinate the efforts of its various agencies with those of non-governmental and community organizations in order to jointly work toward integrating, promoting, and enhancing CSR inside all corporate enterprises.

Corporate Social Responsibility in the West

Corporate social responsibility (CSR) is a popular trend in mainstream businesses such as finance and marketing, as well as academia, due to their shared desire to promote a more

sustainable and better world (Ward et al., 2007). As Reckmann (2022) stated, “corporate social responsibility, or CSR, is a form of self-regulation that reflects a business’s accountability and commitment to contributing to the well-being of communities and society through various environmental and social measures”.

It was not until the early 1950s that the idea of specifically defining those responsibilities was first addressed in the literature, and this can be seen as the beginning of the modern definitional construct of Corporate Social Responsibility. Bowen (1953) defined those responsibilities, explaining that the social responsibility of business executives was to make decisions based on societal values (Latapi, 2019). As cited by Carroll (1999), Howard Bowen provided one of the earliest and most well-known definitions of CSR: "the obligations of businessmen to pursue those policies, to make those decisions, or to follow those lines of action which are desirable in terms of the objectives and values of our society" (Bowen, 1953).

Over time, CSR has taken on several definitions and integrated various elements or traits to reflect a range of commitments, duties, stakeholder rights, and charitable endeavors (Moon, 2002). One of the concepts that helped to define more clearly the social responsibilities of corporations was Freeman’s (1984) stakeholder theory. Stakeholder theory is a corporate management approach that emphasizes the significance of CSR and provides a framework for understanding how business and society interact. Stakeholder theory posits that a corporation is composed of stakeholders or “persons or groups that have, or claim ownership, rights or interests in a corporation and its activities, past, present and future” (Clarkson, 1995).

Moreover, Craig Smith (2001) explained in the early years of the twenty-first century that corporate policies had changed in response to public interest, which often had a positive social impact. This meant that the scope was reduced. The concept of social responsibility (from a business standpoint) was expanded to include a broader range of stakeholders, and a new definition was proposed: Corporate social responsibility (CSR) refers to the obligations of the firm to its stakeholders – people affected by corporate policies and practices. These obligations go beyond legal requirements and the firm’s duties to its shareholders. Fulfillment of these obligations is intended to minimize any harm and maximize the long-run beneficial impact of the firm on society (Smith 2001, p. 142).

Social Responsibility in Islam

The verses of the holy Qur'an and the teachings of the Prophet (PBUH) contain numerous, extensive, and all-encompassing moral rules and ethical principles. Islamic teachings place a significant emphasis on upholding moral standards and ethical laws in daily life. The holy Qur'an contains a number of commandments that specify what must be done in order to promote socio-economic justice and, thus, to be socially responsible, as well as the tradition of the holy Prophet Mohammad (PBUH), as related in Hadith. Some examples of these are obligatory payment out of income and wealth (Zakat), philanthropic trusts (Waqf), alms and charity (Sadaqah), interest free loans (Qard al Hassan), etc. (Mohammed, 2007).

Islam, the faith predominantly practiced in the City of Marawi, has a vast literature that is related to social responsibility. Hence, CSR concept is not new in Islam. In fact, the Islamic concept of Ihsan, which means "perfection" or "excellence" in Arabic, serves as the foundation for corporate social responsibility (CSR). It involves putting one's inner faith (iman), a sense of social duty derived from religious convictions, into action (Maqsood, 1994).

The fundamental tenets of Islamic business, according to Gambling and Karim (1991), are "Khilafah" and "Shura," the first of which is that every Muslim has a personal responsibility for the resources entrusted to them and the latter of which is that resource owners have a duty to hear the complaints of those who are harmed by what is done in their name (pp.68-69).

As Mohammed (2007) had stated, an Islamic social system's main goal is to establish a proper relationship with God, and this process starts with each individual. The main focus of attention is on the people who make up society. Nevertheless, their religious well-being demands that they accept some measure of social responsibility.

Corporate Social Responsibility in Islamic Perspective

Elasrag (2015) further explained that in an Islamic perspective, corporate social responsibility (CSR) has a broader meaning that embraces the value of righteousness (taqwa) in all circumstances, by which everyone in the organization must fulfill their duties as servants and vicegerents. Furthermore, he identifies the following four principles as the primary pillars of Islamic CSR:

Unity. Islam's basic tenet is the unity of Allah, who alone is capable of creating the entire cosmos and the planet. Allah says in The Qur'an (57:5) that He is the ultimate owner of everything on earth and universe and man is ultimately accountable to Allah (Qur'an, 2:28). It means that, by accepting the unity of Allah, it follows that all commercial endeavors must adhere to the principles and values of shari'ah.

Vicegerency and Trusteeship. Man serves as both the vicegerent (khalifah) and trustee of Allah's resources on earth. As a khalifah, or leader, they have a greater obligation to use what belongs to Allah and to make the best use of all the resources He has provided in order to contribute the most value both to the organization and to the community at large.

Justice and Equilibrium. All people are created equal, hence human interactions should be based on trust, equity, and justice, according to Parvez (2007). In Islam, people are regarded as khalifahs. They ought to cooperate and encourage one another, conduct themselves with sincerity and honesty, maintain their word, and carry out their vicegerent duties. In order to reach equilibrium in salary distribution, everyone must be treated fairly, without prejudice. All communities can achieve harmony through organization by adhering to the fairness and equilibrium concept.

Rights and Responsibilities. Each person is answerable and accountable for his or her own conduct. Because humans are endowed with the ability to make moral or immoral decisions, they are free or have the freedom to direct their own life. But in order to safeguard and promote the interest of societal well-being, these rights must always be in accordance with the laws and morals of the Shari'ah. The Prophet Muhammad (PBUH) emphasized the value of accountability in a man's life by saying, "Each of you is a guardian, and each guardian is accountable to everything under his care." Hence, people are supposed to have a sense of social obligation to other members of the community. They all adhere to the idea of what is legal (halal) and illegal (haram), and they all exhibit social responsibility in all facets of the transactions (Elasrag 2015; Mohammed 2007).

Forms of Corporate Social Responsibility

Carroll (1991) stated that organizations must achieve CSR in four areas in what would later on be described as the CSR pyramid: (1) Economic responsibility, demonstrating that a corporation has a responsibility to maximize profit; (2) Legal responsibility, proposing that corporations must remain within the law; (3) Ethical responsibility, beholding corporations to behave in an ethical way, even though it is not required by law; and (4) Discretionary responsibility, focusing on the corporations' activities of donations to the community – this fourth responsibility was changed by Carroll (2004) and renamed it 'Philanthropy'. As Cavalic (2018) noted, the CSR pyramid makes the assumption that there is a hierarchy of several CSR categories and that businesses can improve their own standing within each category. Companies can transition to higher levels of social responsibility, which are advantageous to the entire society, after completing lower levels of CSR and meeting the fundamental needs of shareholders and legal requirements.

In 2003, the Philippine Business for Social Progress commissioned the Social Weather Station (SWS) to determine the Filipinos' attitude, insights and opinions on CSR and corporate citizenship, of the initiatives. The survey revealed that the public has generally prelisted four initiatives that private corporations could do voluntarily: (1) increase the wages of employees alongside (2) increases in the price of basic commodities, (3) spend for the cleaning or restoration of the environment, and (4) give substantial donations to the poor or communities in need (APEC, 2005). There are other forms of CSR according to various authors. Stobierski (2022) wrote in his article in Harvard Business School Online four traditional categories of CSR—environmental, philanthropic, ethical, and economic responsibility described as follows:

Environmental Responsibility. Environmental responsibility is the belief that organizations should act in the most environmentally friendly manner possible. It is one of the most prevalent types of corporate social responsibility. Such initiatives are sometimes referred to as "environmental stewardship" by some businesses (Stobierski, 2022).

Ethical Responsibility. The goal of ethical responsibility is to ensure that an organization operates in a fair and ethical manner. Organizations that embrace ethical responsibility strive to be ethical by treating all stakeholders fairly, including leadership, investors, employees, suppliers, and customers (Stobierski, 2022). Ethical responsibilities consist of a set of practices in compliance with standards, norms, or expectations of society (Schwartz and Carroll, 2003).

Philanthropic Responsibility. Philanthropic responsibility refers to a company's desire to actively improve the world and society. Organizations driven by philanthropic responsibility frequently donate a portion of their earnings in addition to acting as ethically and environmentally friendly as possible. While many businesses donate to charities and nonprofits that align with their guiding missions, others donate to deserving causes that have nothing to do with their business. Others go so far as to establish their own charitable trust or organization in order to give back and positively impact society (Stobierski, 2022). Philanthropic responsibilities include being fair and avoiding harm, being a good corporate citizen, incorporating ethical responsibilities into business decisions, and doing the right thing (Pinto & Allui, 2020).

Economic Responsibility. Economic responsibility is the practice of a company backing all of its financial decisions with a commitment to do good in the above-mentioned areas. The

ultimate goal is not simply to maximize profits, but to ensure that business operations have a positive impact on the environment, people, and society (Stobierski, 2022). Economic responsibilities consist of profitability, competitiveness, and operating efficiency (Carrol, 2003).

Methodology.

This study used the quantitative-correlational type of research. A correlational research design investigates relationships between variables without the researcher controlling or manipulating any of them. This research was conducted in the selected business establishments visibly operating in Marawi City also known as the Islamic City of Marawi (Maranao: Inged a Marawi; Filipino: Islamikong Lungsod ng Marawi). The sampled population of this research are the business owners or managers of business organizations with business permits visibly operating in Marawi City as of January 31, 2023.

Results and Discussion

This part of the paper presented the results of the data gathered relative to the problems posited. As to the profile of the business enterprises in Marawi City, about 137 out of 246 or 55.69% of the respondents had answered that they are actively engaged in retail sale. The rest of the respondents are either engaged in construction (3.25%), restaurant (19.51%), and industrial (7%) type of business. In terms of the type of ownership, majority of Marawi business enterprises is composed of sole proprietors comprising of 65.45% of the total respondents. While the remaining respondents is composed of partnerships (26.42%) and corporations (6.9%). The number of employees revealed that majority of the respondents, that is, 195 out of 246 (79.27%) have 1 to 5 persons hired as employees. While only 2 out of 246 (0.81%) respondents answered that they have at least 11 or more employees working for them. There is about 11.79% of the respondents who responded that they have no hired employees. The business enterprises have been operating between 1-5 years or (61.38%), which means that most of them are still relatively new to the business. On the contrary, only 6.5% of the respondents have been operating for more than 10 years. With regards to the net income range, about 147 out of 246 (59.76%) responded that they were earning monthly net income between ₱10,000 to ₱50,000. Only 2.4% of the respondents answered that they were earning more than ₱100,000 a month.

Furthermore, Marawi City business enterprises understanding about the importance of CSR in terms of western concept revealed an overall weighted mean of 2.98 which falls to the range of “slightly agree”. About 44.31% (109 out of 246) of the respondents strongly agreed on the statement, “CSR can improve employee retention rates, boost morale, build loyalty and increase motivation” which has also garnered the highest weighted mean of 3.073. The statement “I have understood the concept of Corporate Social Responsibility as defined in the above discussion” has the lowest weighted mean of 2.882 with 14.63% (36 out of 246) expressed that they strongly disagree with the statement. On the other hand, respondents understanding on the Islamic concept of CSR revealed a mean of 3.98 which falls to the range of “slightly agree”. Of the statements given, the statement “Engagement to CSR activities have relevant societal impacts in Muslim community” has the highest weighted mean. As per data gathered, 57.72% or 142 out of 246 respondents answered that they “strongly agree” with this statement. The respondents also showed strong agreement to statements “The Islamic

institution of zakah, that is, a wealth tax comprising compulsory charitable-giving for specially designated groups in society, is not only an economic necessity but also a means to spiritual salvation”, and “It is part of Islamic faith to not waste resources”. Both statements are the second most strongly agreed with by most of the respondents (137 out of 246).

Along with the business enterprises’ involvement with the CSR initiatives: environmental, ethical, legal and philanthropic, data revealed that the business enterprises were often involved with these initiatives. Environmental initiatives, garnered second in ranking in terms of weighted mean with 2.923. On top of the environmental initiatives is the sanitization of the place of operation before and after use with the highest individual mean of 3.012. Among the four areas of CSR initiatives, the respondents are mostly involved in ethical area of CSR initiatives. The overall mean response to this area is 2.984, the highest mean among the four, which is interpreted as “the respondents are oftentimes involved in ethical related CSR initiatives”. Respondents gave highest regard to employee’s welfare with an average of 3.138. Legal CSR initiatives obtained an overall mean of 2.923 which means that the respondents are oftentimes engaged in these legal initiatives. On top of the legal initiatives with mean score of 3.037, is assuring that all products or services offered are Halal. Lastly, it was philanthropic initiatives wherein respondents are least involved with an overall mean of 2.657, the lowest mean among the four other areas. The lowest mean of 2.167 and 2.146 were found to be activities that related to fundraising and community events. Based on the individual means of each statement, on top of the respondents’ CSR initiatives is Sadaqa (charities). Half of the respondents said that their business enterprise always donates profit to charities (sadaqa) or causes it believes in. Next most observed CSR initiative is assuring products or services offered are Halal. Third in the most observed CSR initiative is fair employee compensation and employee treatment.

Relationship between the business profiles and the businesses’ involvement along CSR initiatives

A correlation test was conducted to determine if there is significant relationship between the business profile (i.e, type of business, type of ownership, number of employees, number of years in operation, and net income range).

With the p-value greater than significant level of 0.5, the correlation test showed that the extent at which the different types of businesses get involved in environmental, ethical, legal and philanthropic CSR initiatives are not significantly different. Hence the null hypothesis is accepted, that is, there is no significant association between the type of business and the extent of involvement in all areas of CSR initiatives.

Further, the extent at which the different types of ownership get involved in environmental, ethical, legal and philanthropic CSR initiatives are not significantly different. Hence the null hypothesis is accepted, that is, there is no significant association between the type of ownership and the extent of involvement in all areas of CSR initiatives. Similarly, with p-values computed greater than the significant level, there is no significant association between the number of employees, the number of years in business, and the extent of involvement in all areas of CSR initiatives.

Testing for each area of CSR initiatives, it is determined that of the four areas, legal related CSR initiatives show clear significant relationship with net income range hence the null hypothesis is rejected. Particularly, higher net income is associated with more involvement in legal CSR initiatives.

Relationship between the extent of business owner's understanding of CSR western concept and the performance of CSR initiatives

As a result of analysis, the extent of involvement in environmental, ethical, legal, and philanthropic CSR initiatives is highly associated with the understanding of the Western concept of CSR. Therefore, the null hypothesis is rejected. Particularly, better understanding of the Western concept of importance of CSR is highly associated with more involvement in all areas of CSR initiatives.

Relationship between the extent of business owner's understanding of CSR in the Islamic concept and the performance of CSR initiatives

Similar to the findings on Western concept, the extent of involvement in environmental, ethical, legal, and philanthropic CSR initiatives is highly associated with the understanding of the Islamic concept of CSR. Thus, the null hypothesis is again rejected. Particularly, better understanding of the Islamic concept of importance of CSR is highly associated with more involvement in all areas of CSR initiatives.

Conclusion

The findings of this study have several implications in the performance of social responsibility among the Marawi business enterprises. Although on initial observation, there seems to be a lack of involvement in corporate social responsibility, it is definite from the results of the study that CSR initiatives are present despite majority of the businesses operating in the city is small to medium scale only. The business owners exhibited good understanding of the importance of CSR in both Western and Islamic concepts. Hence, it is the financial restrictions that greatly hinders Marawi business owners to engage in more CSR initiatives. However, despite the barrier imposed by financial restrictions, giving Sadaqa is still one of top CSR initiatives that is well-adopted by Marawi business enterprises. This is of no surprise since Maranao businessmen are expected to give higher regard to practices that have clear consistency with Islamic faith. Consequently, there will be no difficulty in adopting new CSR initiatives for as long as they remain consistent with Islamic principles.

Recommendation

Based on the results and conclusion drawn, the researcher presents the following recommendations:

First, since the level of understanding of Islamic CSR concept was shown to have link with higher performance of CSR, business owners should develop clear social vision and accountability to the society through seeking knowledge about Islamic concept of social responsibility. Apart from that, business owners should take initiative to incorporate CSR into the policy setting of the business enterprise to institutionalize CSR system within the business enterprise. A local committee may be organized to formally develop policies that integrate the

Islamic perspectives on CSR into the commonly used Western idea of CSR. Further, to address the identified barriers and take advantage of the drivers determined in this study, the researcher proposes the following Islamic CSR Framework for Marawi City business enterprises which is developed with reference to the results of data collection and review of literature as shown in Figure 1 below:



Figure 4 Islamic CSR Framework for Marawi Business Enterprises

As shown in Figure 1, the Islamic CSR Framework as Darus, et.al (2013) suggested, begins by incorporating the Islamic principles of Maqasid Al-Shari’ah in the business enterprise’s main objectives, that is, the business owners should align their business endeavors in protecting the Maqasid al-Shari’ah which revolves around five principles or objectives, namely, protection of faith (al-din), protection of life (al-‘nafs), protection of intellect (al-‘aql), protection of lineage (an-nasl) and protection of property (al-mal/wealth).

After integrating Maqasid Al-Shari’ah into the business mission, businesses shall then develop the vision of a sustainable global economy that actively benefits society and the environment by incorporating values like unity, justice, trusteeship, and accountability which are among the basic tenets of an Islamic CSR.

Once Islamic principles are incorporated in the business enterprise’s mission and vision, specific strategies for the attainment of Islamic CSR initiatives shall then be developed. While it was established in this study that the extent of involvement in all areas of CSR initiatives is highly associated with both the Western and Islamic Concepts, it would be helpful to adopt additional measures from both concepts since it has been discussed from the literature that the

Islamic perspective on CSR is consistent with that of Western concepts. For Islamic CSR Framework, five areas shall be considered: economic responsibility, environmental responsibility, legal responsibility, ethical responsibility and philanthropic responsibility.

Of the five areas, Islamic CSR initiative should start with developing the economic responsibility. Economic responsibility is the practice of a company backing all of its financial decisions with a commitment to do good in the above-mentioned areas (Stobierski, 2011). Considering that net income is shown to have a significant association with CSR involvement particularly on legal responsibilities, the Islamic CSR framework should then essentially incorporate the economic responsibility to make Halal profits. To seal the framework, there should be government involvement in the implementation and regulation of Islamic CSR policies to the Marawi business community.

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CARBON TAX: A STUDY ON THE EXTENT OF KNOWLEDGE AND THE INFLUENCING FACTORS IN MALAYSIA.

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Abstract: (TNR, 12, italic, justify, single spacing) - Carbon tax is a tax levied on the carbon content of fuels that comes from transport and energy. It is part of carbon pricing or carbon emissions trading. The term carbon tax is often relates to carbon dioxide tax, which can be applied to any form of greenhouse gas mixture produced by any sector of the economy. The imposition of carbon tax is believed to be one of the most efficient tools to overcome the environmental problems. The study investigates factors influencing the extent of carbon tax knowledge among individuals in Malaysia. Three factors investigated are level of education, peer influence and carbon tax awareness. Data collected through questionnaire distributed to 200 sample of individuals around Selangor is analysed by using statistical analysis of multiple regression. Result of the study indicates that factor of carbon tax awareness is significant in influencing the extent of carbon tax knowledge of Malaysian individuals, while the other two factors are found to be insignificant. The study provides significant contribution towards knowledge on taxation issues in the context of Malaysia as an emerging economic country in the world.

Keywords: Carbon Tax, Education, Peer Influence, Awareness, Malaysia.

Introduction

Carbon tax is a tax levied on the carbon content of fuel that comes from transport and energy. It is part of carbon pricing, like carbon emissions trading. Carbon tax refer to carbon dioxide tax, which is somewhat similar to any form of greenhouse gas or greenhouse gas mixture produced by any sector of the economy. Once a hydrocarbon fuel such as coal, petroleum, or natural gas is burned, it transforms the carbon to carbon dioxide (CO²) and other carbon compounds. CO² is a heart-catching greenhouse gas that causes global warming and affects human health and the environment. Carbon is found in all types of hydrocarbon fuel including coal, petroleum and natural gas and released as the harmful carbon dioxide (CO²) toxin when such fuel is burned. CO² is the compound largely responsible for the greenhouse effect of trapping heat in the atmosphere of the Earth and is also a major cause of global warming (Kagan, 2019).

By the year 2050, it is expected that 77 countries and more than 100 cities in the world are committed to achieving net zero global emissions. As of 2019, carbon taxes was introduced or planned to be implemented in 25 countries, while 46 countries put some form of carbon price, either through carbon taxes or emissions trading schemes. Economists believe that carbon taxes

are the cheapest and most efficient form of combating climate change, with the least negative economic effects. Imposing carbon tax is considered to be one of the most efficient tools to overcome the environmental problems. Basically, industries generating carbon dioxide from their activities would pay the carbon tax. The revenue from carbon tax will be spent on low-income communities to protect them from regressive taxes (Wikipedia, 2020). Lu, Zhu, and Cui (2012) propose that for large energy-intensive customers in most sectors, carbon tax policy is the chosen option for reducing emissions.

Rising energy prices in recent years have forced many countries, including France, Japan, and China, to put a carbon tax on the agenda (Lin and Li, 2011). Moreover, global warming is now an indisputable reality and its impact on human has become one of the most severe threats in the world. In addition, global climate change is the world's most urgent environmental issue. Failure to ensure substantial reductions in greenhouse gas emissions over the next 10 to 20 years will result to major environmental disruption. (Avi-Yonah and Uhlmann, 2009).

Malaysia is a fast-growing nation which aims to achieve the status of developing countries by 2020. However, to become a developed country, the necessary rapid growth may have major consequences in relation to the burden of climate. Malaysia already faces the adverse effects of the climate change burden on its biodiversity and forestry, coastal and marine resources, thus threatening its macroeconomic goal (Masud, Al-Amin, Akhtar, Kari, Afroz, Rahman and Rahman, 2013). It is struggling in facing major challenges in addressing cultural, population and energy growth demands, and at the same time plans to reduce greenhouse gas emissions. The imposition of carbon tax might be seen as an effective mechanism for Malaysia for the purpose of reducing carbon emissions and air pollution as well as generating income (Kamaruddin, 2014).

It has been stated by the President of the Malaysian Natural Resources Protection Association, Mrs Sri Shariffa Sabrina Syed Akil that the implementation of carbon tax is seen as a way to protect the environment as well as a new source of income for the government. In addition, carbon tax imposed on the manufacturing industry will increase responsibility of the sector to use environmentally friendly technologies, thus reducing greenhouse gas emissions. However, due to the aim of the government to attract foreign investment to Malaysia, carbon tax is not yet to be implemented in Malaysia (Karim, 2019). This study is conducted to investigate factors influencing the extent of carbon tax knowledge upon individuals in Malaysia.

Literature Review

Carbon taxes have been introduced around the world for almost 20 years (Lin and Li, 2011). Nations currently adopting carbon taxes include Denmark, Finland, the Netherlands, Norway, Sweden, New Zealand, Switzerland, Italy, Canada and the United States of America. In 1990, carbon tax was first implemented in Finland, expanding it to gasoline, diesel, light fuel and heavy fuel oil, jet fuel, petrol aircraft, coal, and natural gas. In 1994, Finland divided tax on fuel into energy-mixed tax and carbon tax. In 1990, the Netherlands introduced carbon tax into their environmental tax system. Later, the nation converted the carbon tax into energy tax, which was then split into energy mixed tax and carbon tax.

Carbon taxes might be a low-cost way to reduce carbon dioxide emissions, but they are frequently limited by public acceptance (Hammerle, Best and Crosby, 2021). Carbon taxes are an important way to lessen greenhouse gas emissions, the most reliable and safe way to combat

climate change with fewest negative economic consequences. Carbon taxes are used to penalize non-eco-friendly manufacturing and promote low-carbon manufacturing techniques due to the growing concerns of environmental pollution, resource usage, and energy shortages (Chen and Hu, 2018). Establishing carbon taxes will aid in the reduction of fossil fuel energy consumption and carbon dioxide emissions (Ghazouani, Xia, Jebli and Shahzad, 2020).

Environmental deterioration definitely is becoming a problem in today's globe, posing a threat to the global population's long-term viability (Yusuf, Ibrahim, Saifullahi, Mridul, Pooja and Pallavi, 2020). Pollution in the environment mostly is caused by a variety of factors. For example, air pollution specifically is caused by the discharge of harmful pollutants from homes and industrial operations into the environment, which are mostly suspended in the air for a long time. It will result to environmental degradation. The cost of environmental degradation induced by air pollution is primarily comprised of higher living costs due to additional cleaning. As air pollution from smoke and dust worsens, cleaning and labour expenses tend to rise. Environmental degradation caused by greenhouse gases and climate change might worsen the environment, thus applying carbon tax will be the most efficient way to combat the problem.

Methodology

The study is conducted by using quantitative method. Questionnaire is distributed to 200 sample of individuals around Selangor. The questionnaire is divided into three main sections. Section A is for background of respondent, section B is for the extent of knowledge of carbon tax and section C is for factors that influencing the extent of knowledge of carbon tax. Data is analysed by using descriptive statistics and multiple regression analysis through Statistical Package of SPSS.

Findings

Based on multiple regression analysis, findings of the study reveal that factors of awareness of individuals are positively and statistically significant at $p < 0.05$. This shows that individuals with higher awareness on carbon tax will results to higher extent of knowledge of carbon tax. On the other hand, level of education and peer influence are insignificant and do not influence the extent of carbon tax knowledge in Malaysia. The value of adjusted R^2 is 0.08, thus indicates that the regression model is able to explain only 8 percent of the associations between the extent of carbon tax knowledge in Malaysia and its determinants. Based on the results, the equation of the regression model is specified as follows:

$$\gamma = 1.377 + 0.019x + \varepsilon$$

Annotation:

γ : extent of carbon tax knowledge

X: Awareness of carbon tax

ε : Error

Conclusion

Results of this study is fruitful in understanding the level of knowledge of carbon tax among individuals in Malaysia as well as the influencing factors. As the study found that awareness of individuals has a positive and significant relationship with the extent of knowledge of carbon

tax, the results suggest that Malaysian individuals with better awareness on carbon tax will have higher level of knowledge of carbon tax. Findings might assist tax administrator and policy makers in Malaysia to further strengthen the idea of carbon tax implementation in Malaysia before the tax is really being imposed. However, there might be other potential stimulus factor that might influence the extent of carbon tax knowledge in Malaysia, but are not included in this study. Therefore, it is valuable for future research to consider the possibility of other stimulus factor. Also, the inclusion of other stimulus factors is worthwhile to obtain a stronger predictive model of this matter.

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DETERMINANT OF ISLAMIC TOURISM STAKEHOLDERS' INCOMPREHENSION ABOUT ISLAMIC MUAMALAT

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Abstract: *Worldwide acceptance and demand for Islam as the world's fastest growing religion provides abundant opportunities for halal industry components including Islamic tourism. Nevertheless, despite the positive opportunities, poor understanding about Islamic tourism and the muamalat concept has adversely affected Islamic tourism growth. Thus, the researchers are interested to uncover the determinant of Islamic tourism stakeholders' incomprehension about Islamic muamalat and the effect toward Islamic tourism growth. Contents were analyzed, data was assembled and classified into meaningful information. It was found that both internal and external factors contributed significantly in the misunderstanding about Islamic Muamalat among Islamic tourism stakeholders. Of the variables, demographic profile turned out to be the most dominant factor affecting the incomprehension of Islamic tourism operators about Islamic Muamalat. Lack understanding about Syariah even among Muslim stakeholders has resulted in relatively poor comprehension about Islamic Muamalat. Consequently, the substandard conception has adversely affected the Islamic tourism sector's overall credibility and effectiveness. Thus, clarify the potential business owners' and operators' reticence to embark into the business.*

Keywords: *Islamic Tourism, Stakeholders, Muamalat, Incomprehension*

Introduction

The worth of Halal industry is undoubtedly propitious. By 2030, the worldwide halal market is targeted at USD 5.0 trillion. Similarly, Malaysia with its target to be the international halal hub is projected to inject USD 113.2 billion to the domestic economic growth by the same year through its halal ecosystem (HIMP 2030). Islamic tourism as one of the halal subsectors is projected to have worldwide value at USD225 billion through 230 million arrivals by 2028 (Mastercard-Crescentrating, 2022). Malaysia as a top destination for Islamic tourism among the Organization of Islamic Countries (OIC) is striving to contribute to the goal accomplishment.

With greater emphasis of Muslim-friendly tourism product development initiatives in the National Tourism Master Plan, the sector must be strategically plan and manage to continuously serve the greater demand of Halal industry sector thus requires the stakeholders to keep pace with the industry requirement and updated knowledge pertaining to halal (Halal Development Corporation Berhad, 2018; MOTAC, 2020).

Despite the significant socio-economic impacts, Islamic tourism and halal industry remained an underrated research area. (Abas et al., 2022; Mastercard-Crescentrating, 2021; MOTAC, 2020; OIC, 2020) due to the unclear and debatable concept and terminologies (see for instance Abas et al., 2022; El-Gohary, 2016; OIC, 2020; Suban et al., 2021). Besides, the stakeholders' misunderstanding and compliance to Syariah law form major issues of Islamic tourism growth in Malaysia (Abas et al., 2022). Islamic tourism operators are reluctant to invest because they are confused about the Islamic tourism concept (Mastercard-Crescentrating, 2019a; MOTAC, 2020; OIC, 2020; SESRIC, 2018) hence require the entrepreneurs to increase their understanding about halal to determine the product unique selling proposition (USP) (Malay Mail, 2021).

Furthermore, due to the widely accepted concept of Muamalat as a commercial transaction, studies on this area in Malaysia were primarily focused on banking or financial institutions and zakat only. Considering that Islamic Tourism Muamalat is relatively novel, research into this area is urgently needed to help those in the Islamic tourism sphere to fully comprehend and maximize the full potential of Islamic tourism. Therefore, this study fills the gap of the previous studies mentioned above.

Literature Review

Islamic Muamalat

It is vital to understand Fiqh and Syariah (Islamic jurisprudence) in order to comprehend Islamic Muamalat. This requires one to understand the relationship between Muamalah, Syariah (Islamic Jurisprudence) and Syariat (divine law). Fiqh being one of the components of Islamic law (Syariah), is classified into two namely Fiqh Ibadat and Muamalat.

Fiqh Ibadat concerns the religious ritual prescribed in the five pillars of Islam namely solah or praying, saum (fasting), zakat (almsgiving) and performing hajj (pilgrimage). Fiqh Muamalat on the other hand, refers to commercial and civil acts or dealings under Islamic law (<https://www.oxfordreference.com>). This includes jinayat (criminal law), munakahat (marriage law) and muamalat (commercial).

Despite covering socio-economic and political aspects, Fiqh Muamalat in Malaysia is more prevalent in economic or commercial transactions as prescribed above. Muamalat can be defined as mutual agreement between two or more parties through voluntary exchange of ownership covering a wide spectrum of daily commercial transactions as contracts, commitments and tasarruf or possession (JAKIM, 2020). This sheds the light as to why Muamalat studies in Malaysia merely focusing on banking, contract, and philanthropies.

In the ruling of Syariah, jurists rely on four major sources namely al Quran, Hadith (written form of the prophet Muhammad ﷺ sunnah), Ijma' (authoritative agreement among the jurist) and Qiyas (Mantiq or analogical reasoning). Similarly, it is an Ijma' of the four sects that Fuqaha (Fiqh experts) must rule out the verdicts based on these four premises.

Under the Fiqh Muamalat theory, any transaction requires both parties to observe three main elements by ensuring that (1) there should be no gharar (uncertain or deceptive elements) in the transaction (Quran, 2:188; 4:29-30; (2) the trade is free of riba or usury (Quran, 2:275;

3:130; 4:161 and 30:39) and (3) no elements of gambling or Maisir (including lucky draw) is presence (Quran: 2:219 and 5:90-91).

It is notably understood that the ruling of Fiqh Muamalat differs according to local uruf (common practice) and is mostly based on the predominant sect (mazhab) in that area. Nevertheless, the entire process must comply with Islamic jurisprudence (Syariah). Al Maidah verse no 5 for instance permits the consumption of food prepared by the people of the book (ahlul kitab) and marriage with them (Quran, 5:5).

However, we need to be mindful of the interpretation. According to the Syafie sect, people of the book are exclusive only to the twelve Jacob tribes (Bani Israel) who follow the authentic Torah of Moses and Gospel of Jesus. This means, today's Christians and Judaism who adhere to the Bible regardless of the dominion and Tanakh or the non-Bani Israel are absolutely disqualified.

Furthermore, when there are options between slaughtering or food prepared by Muslim and the ahlul kitab, slaughtering or food prepared by the former shall nullify the latter to ensure the Maqasid Syariah is upheld. According to the Malaysian Standard on Halal Food (MS 1500:2009), we need to ensure that the windpipe (throat), food-tract (oesophagus) and the two jugular veins must be cut to constitute halal definition (Halal Malaysia, 2009).

Similarly, in the context of Islamic tourism business, the industry standard and requirements of the MS 2610 Muslim Friendly Hospitality and halal certification must comply with Islamic muamalat (SIRIM QAS, 2022). Nevertheless, the certification alone does not guarantee that the business is syariah-compliant.

Islamic Tourism

Islamic tourism is part of Halal industry components and tourism subsectors. This means that it is developed under the Halal Industry Master Plan (HIMP, 2030), Malaysia Tourism Plan 2030 and Islam Tourism Blueprint. In Malaysia tourism industry, this sector's development is specifically under the aegis of Islamic Tourism Centre, a government agency established under the Ministry of Culture, Arts and Tourism (MOTAC) in 2009. As Malaysia aims to be the world's leading halal hub, The Halal Industry Master Plan (HIMP) 2030 developed in 2018 has further strengthened the Islamic tourism growth in Malaysia as MOTAC and JAKIM collaboratively develop and market Islamic tourism products.

Islamic tourism as the name implies refers to the provision or pursuit of tourism related business in both supply and demand activities within the Islamic framework. Nevertheless, worldwide Islamic tourism is still struggling with an ununified concept (Abas et al., 2022; El-Gohary, 2016; Mastercard-Crescentrating, 2019b; OIC, 2020). This could be attributed to the inconsistency in terminologies like Islamic tourism, halal tourism and Muslim-friendly tourism which are used interchangeably. Despite their similarities, confusion between religious tourism and Islamic tourism among some scholars further exacerbate the matter.

In addition, Shariah-compliant hotel or dry hotel concepts used in the hotel industry to project the Islamic representative image provides several implications in terms of its concept and operationalization. As far as the term and operationalization concern, at least in Malaysia, only the Shariah-compliant hotels are proven to fulfil the Islamic operative concept. Even the

rebranding term into “Muslim-Friendly” to imply a pliable approach creates more misunderstanding.

Operating in the Islamic tourism ecosystem requires the stakeholders to understand and comply with the Shariah law manifested in the standardized guidelines and operating procedures. In Malaysia, the Trade Description Act 2011 (Act 703) has authorized the Department of Islamic Development Malaysia (JAKIM) and the Islamic Religious Council of the States (MAIN) as two main agencies for issuance of halal food, goods, or other related services in Malaysia KPDN, (2017).

Besides, the MS 1500:2009 (pg1-2) outlines six (6) elements of halal definition in the preparation, producing, storing and handling process based on syara’ or Syariah law (Halal Malaysia, 2009). In addition, the MS 2610: 2015 Muslim Friendly Hospitality was introduced in 2015 covering three (3) major components of Islamic tourism business namely Muslim-Friendly Tourism and Hospitality Assurance & Recognition (MFAR); Muslim-Friendly Tour Guides (MFTG) and Muslim-Friendly Packages to assist Islamic Tourism operators in managing Islamic tourism facilities, product and services (SIRIM QAS, 2022).

Those embarking into the halal business must comply with the Malaysian Halal Management System (MHMS) 2020. This manual procedure outlines the requirements of Halal Malaysia Certification where the small and medium enterprises (SMEs) must comply with the Internal Halal Control System (IHCS) while the medium and large enterprises are accountable for the Halal Assurance Standard (HAS) (Halal Malaysia, 2020).

In the Halal Supply Chain Management System, the MS 2400:2019 consists of three main components namely Part 1: Transportation; Part 2: Warehousing and Part 3: Retailing sanctioned JAKIM to issue a certificate to Halal Supply Chain companies complying with the requirement. These are monitored via the Halal Assurance Management System to avoid the impurity of perishable, raw components and food items during the transportation or distribution activities (Standards Malaysia, 2019).

In 2022, the MFTG logo and lapel pin was introduced together with the Kursus Pemandu Lawatan Masjid (Masjid Tour Guide Course) to strengthen the industry. In 2023, MFAR program and MFT Product & Hospitality Propack are streamlined and were rebrand to “Muslim- Friendly Tourism and Hospitality Recognition” (MFAR) (K. Ramli, 2023)

These standardized guidelines and procedures provide a comprehensive ecosystem to galvanize the halal industry particularly the Islamic tourism sector. Nevertheless, despite the standardized operating guidelines and procedures, business operators have lacked awareness and understanding hence, spawning the effectiveness of those guidelines. Additionally, it also poses questions on their comprehension about Islamic muamalat for they are related to one another thus affecting the credibility of Islamic tourism in Malaysia.

Measuring Understanding

Merriam-Webster (n.d.) defined understanding as knowledge and ability to make judgement particularly involving the ability to apprehend general relations of particular issue or subject and the intelligence ability to apply concepts and categories into meaningful

experience. In other words, understanding requires one to comprehend the basic knowledge involving the cognitive, affective and psychomotor domains into meaningful competence.

Understanding can be assessed using both objective and subjective measures. This includes measuring understanding using quantitative value as point or grade while subjective measures involve satisfaction, clarity or behavioural changes. Sands et.al, (2018) for instance indicated that at a higher level, a learner is more prevalent to understand the concept and applying the knowledge.

Alternatively, we measure understanding using internal and external forces. Internal forces refer to factors within the stakeholders' control. Demographic profile like religion, age, and educational background has a profound effect in assessing one's understanding about Islamic tourism. The exposure they get through these elements helped to shape their understanding about Islamic muamalat and how to operate Islamic tourism business activities. Similarly, understanding the target market's profiles or demographic characteristics enables the business operators and service providers to better serve them hence win the customers' trust.

When we are interested in something, the passion will drive us to understand and accomplish our goals. Similarly, as individual psychological capital increases, it mediates the entrepreneurial passion and positively affects entrepreneurial success Hu et.al, (2022). The interest that the Islamic tourism stakeholders have would propel their enthusiasm to learn more and understand the situation at hands. This could stem from the interest in business or self-actualization.

Business orientation which constitutes four major elements namely production, product, marketing and sales orientation would also determine how the product and service operators would manipulate their resources in strategizing the companies' success. In a relevant study conducted by Othman et al. (2019), they found that the performance of halal food industry in Malaysia is positively associated with the level of halal practices demonstrated by the business orientation.

External forces can be defined as outside factors that are beyond one's control. This factor can either limit or commit Islamic tourism stakeholders to understand more about Islamic Muamalat. This includes government policy imposed on business operators and business opportunities as cited by Abolhassani et.al, (2020).

Methodology

Unlike systematic review where data is solely taken from the previous study findings with the assistance of technology, content analysis was employed in this study as it provides discreet and transparent data collection whilst enabling the researchers to decontextualize and recontextualize the topic understudy. Hence, data was collected from credential sources as reputable journals, Islamic-tourism related websites and reports based on the keywords or identified variables.

Data organization involves classification and comparison of each content or data based on the predefined variables according to its importance. We inductively and deductively analyze the data set to further crystallize the study objectives. This requires us to provide sound arguments

and justifications. The information was then presented systematically in an organized manner to help our audiences to comprehend the topic under study.

Result and Discussion

In our attempt to uncover the determinants of Islamic tourism stakeholders' incomprehension about Islamic Muamalat, we found that both internal and external factors correspond to one another thus contributing significantly to the misunderstanding about Islamic Muamalat. Besides, according to Tan Sri Khalid bin Ramli (2023), the then Director general of ICU, Prime Minister Department, only 20 percent (20%) of Islamic tourism operators in Malaysia are Muslim.

This demographic profile indicates that the sector is largely dominated by the non-Muslims whose religious and educational background are totally different. Notwithstanding this, the Muslims millennial generation who are mostly the Islamic tourism customers also make up the halal workforce which indirectly contributed to their misunderstanding. Despite having better education and exposure opportunities, their knowledge in Islamic muamalat is still minimal. Although diversity is good, it may also present challenges to the business operators as this requires them to understand the target market needs and the requirements essential in operating the sector.

In addition, the Muslim-friendly service term used by the business operators is found to be contradicted with Islamic Muamalat concept. This is evident in the ICT Muslim-friendly directory where the hotels are classified into three based on their partial-to full compliance to the Syariah requirement. (see for instance <https://itc.gov.my/muslim-friendly-directory/>).

On top of basic requirements like, providing qibla direction, prayer mat and prayer time, hotels or hospitality accommodation certified with the MFAR must have at least one of the dining facilities/kitchens be Halal certified by JAKIM. This presents the tendency for cross-contamination through mixing equipment or kitchen apparatus for premises with multiple F&B outlets where only one dining facility is Halal certified. Hence violated the Halal definition prescribed under the Trade Description Act 2011 and MS 1500:2009 (pg1-2).

Although Islam provides Taharah (purification) solution to najis through Sertu method (purification of utensils or equipment from najis Mughallazah; the most severe filth/najis contaminated with dog and pig including the saliva or their derivatives and Samak (extrication of the animal skin from its meat using sharp object or chemical), the process must be performed by a Muslim and monitored and endorsed by the State Religious Department (Jabatan Agama Islam Negeri) (JAKIM, 2016). This takes integrity of the affected hotel or business premises to report such incidents to the authority as well as time and money to perform the procedure.

Besides, Othman et al. (2019) indicated that halal and thoyyib (good); and halal assurance greatly influenced the organization performance as opposed to the process and its human capital. This shows that the marketing effect of Halal branding successfully fosters a favorable image to the business entities hence boosting the company performance more than the internal factors like halal process or its manpower.

The same nuance of the MFAR certification or the international level Crescent-rating accreditation for hotels providing Muslim-friendly service may pose negative long-term effects

as these marketing gimmicks may backfire Islamic tourism sector in the long run. In addition, we found that an online travel article on Best 7 Muslim-Friendly & Halal Romantic Restaurants in KL for couples (HHWT, 2022) features a restaurant serving alcoholic beverages which is against the Syara'. With an estimated 8.6 million Muslims readership across Asia, the Singapore-based company seemed to be confused and insensitive thus demonstrating lack of understanding about Islamic muamalat or the Islamic tourism concept.

Furthermore, using contests as a promotional mix is quite common in today's business strategy. Unfortunately, the third premise of Fiqh Muamalat theory that the transaction/ activity should be free from the Maisir element (gambling) is often overlooked even among Muslim organizations. Besides, determining the winner in a contest based on the fastest and accurate answer is considered as non-shariah compliant as contestants depend on their luck despite correctly answering all the questions (JAKIM, 2016).

As our focus is on the stakeholders which refer to entities or parties with vested interest in Islamic tourism development, it is aptly jarring that the stakeholders including the Muslim policy maker or the government, business operators, service providers, investors and customers do not comprehend the Islamic values or teaching well. This could be attributed to the liberalism approach practices in most areas in Malaysia even in the tourism industry development. This holds true as Halal Development Corporation Berhad (2018), acknowledged that increased awareness on Halal products and new economic opportunities present greater challenges to the stakeholders in the halal industry.

The second objective was to identify the effect of the incomprehension toward Islamic tourism growth. We found that lack understanding about Islamic Muamalat clearly demonstrates lack understanding about Islamic tourism. The Fiqh Muamalat theory that the business should not come from haram sources and should be free from gharar, riba and maisir were found to adversely affect the Islamic tourism sector growth as stakeholders particularly the business operators find it hard to fathom into the practice.

Embarking into Islamic tourism business requires great capital investment but the return on investment (ROI) may not be as handsome as the mainstream tourism business. This is because in the hospitality industry, one of the largest revenues comes from the entertainment and selling alcoholic beverages; thus, hinders the operators' confidence to join the market. This however, helps to ensure the sanctity of Islamic tourism as only those who are ready to commit and comply with the Islamic law (Syara') should be in the system.

Conclusion

It is vital for all Islamic tourism stakeholders to understand about Islamic muamalat to ensure the growth and sustainability of Islamic tourism. We believe that the current guidelines and standardized procedures are sufficient to assist the Islamic tourism stakeholders and are practical to all sectors in the halal industry.

This study presents several implications to all the stakeholders. Firstly, a sound standardized guideline and enforcement must be in place to protect the Islamic jurisprudence hence maintaining credibility and quality of Islamic tourism products and services. Secondly, the government needs to exercise control in halal industry particularly the Islamic tourism sector

to eliminate deception either from the business operators or investors to safeguard the customers (Zakaria & Abdullah, 2019).

Thirdly, integrity and continuous effort must be made to educate Islamic tourism stakeholders and the public about the importance of Islamic Muamalat to uphold the Maqasid Syariah (objectives of Syariah). Stakeholders must be made aware that religious elements are not a commodity; hence should be strictly regulated and monitored to ensure its sanctity.

Fourthly, to estimate the value of Islamic tourism growth in Malaysia, a strong database must be made available. The government must have a sound statistic about local Islamic tourism worth to boost the stakeholders' particularly the business operators and the investors confident to invest into the sector. This is possible with the assistance of new technology like artificial intelligence and metadata. Overdependence on international statistic is impoverished to the local Islamic tourism growth.

As secondary data may limit our research, this paper contributed significantly in extending current knowledge by audaciously exploring the topic in a diverse perspective and discipline. Deducing the raw information from the credential sources into a sound argument also requires bold effort to understand the situation at hand. Future studies can look into similar areas using a quantitative approach to render substantial input. It is also valuable for future researchers to collaborate with the relevant authority to explore more about the value of Islamic tourism both objectively and subjectively.

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ANALISIS KEPERLUAN PEMBANGUNAN KERANGKA LITERASI MEMBACA TEKS BAHASA ARAB BERBANTUKAN TEKNOLOGI AUGMENTASI REALITI (AR) UNTUK MURID BERKEPERLUAN PENDIDIKAN KHAS (MBK) DI MALAYSIA DALAM KALANGAN IBUBAPA

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Abstract: Kajian ini bertujuan untuk mendapatkan maklum balas dan maklumat daripada ibu bapa yang mempunyai anak berkeperluan khas bagi tujuan pembangunan kerangka literasi membaca teks bahasa Arab berbantuan teknologi augmentasi realiti (AR). Analisis keperluan ini penting bagi menyediakan maklumat yang jelas untuk pembangunan kerangka literasi agar kerangka yang dibangunkan bertepatan dengan keperluan murid dan dapat membantu menyelesaikan sebarang kebarangkalian permasalahan yang wujud. Populasi bagi kajian ini merangkumi ibu bapa yang mempunyai anak yang bersekolah di Program Pendidikan Khas (PPK), Program Pendidikan Khas Integrasi (PPKI), dan Program Inklusif pada peringkat umur 7 hingga 12 tahun. MBK dalam kajian ini hanya tertumpu kepada kategori Murid yang mengalami masalah pembelajaran (slow learner). Kajian ini menggunakan teknik persampelan rawak kluster yang melibatkan lima zon di Malaysia. Protokol temu bual separa struktur digunakan bagi tujuan pengumpulan data. Data kualitatif yang diperolehi akan dianalisis secara tematik menggunakan perisian ATLAS.ti Terdapat empat tema berkaitan data iaitu (1) keperluan dari aspek prasarana (2) kepakaran dan latihan guru (3) bahan bantu mengajar dan (4) kesesuaian teknologi augmentasi. Analisis data menunjukkan kerangka literasi membaca teks Arab berbantuan teknologi augmentasi diperlukan dengan empat tema yang telah dinyatakan. Selain itu, terdapat cadangan lain dari ibubapa yang boleh digunakan untuk merekabentuk dan membangunkan kerangka literasi membaca ini. Pembangunan kerangka literasi membaca teks bahasa Arab berbantuan teknologi (AR) untuk MBK diharapkan dapat menyediakan suasana yang kondusif untuk persekitaran pembelajaran MBK

di Malaysia dan seterusnya dapat bersama-sama membantu pihak berautoriti untuk menyelesaikan masalah keciciran murid-murid berkeperluan pendidikan khas dalam arus pendidikan perdana di Malaysia.

Kata kunci: Analisis keperluan, pembangunan kerangka, literasi membaca, Murid Berkeperluan Pendidikan Khas, augmentasi realiti

Pengenalan

Menurut Akta OKU 685, Murid Berkeperluan Khas (MBK) adalah golongan yang termasuk dalam terminologi Orang Kurang Upaya (OKU) dalam kategori Masalah Pembelajaran (Undang undang Malaysia 2008). Data menunjukkan terdapat masalah keciciran dalam menguasai literasi membaca teks bahasa Arab melibatkan MBK dari tahun 2011 sehingga kini dan keadaan ini secara tidak langsung menyebabkan golongan MBK mengalami masalah dalam membaca teks Al-Quran (Aminuddin Khalit, 2015). Terdapat beberapa faktor menyebabkan berlakunya permasalahan ini seperti guru tidak mempunyai kemahiran dan kepakaran dalam bidang berkaitan, pedagogi berpusatkan guru, tiada kemudahan sumber khas untuk MBK seperti modul, buku teks; dan bahan pengajaran (Jabatan Pendidikan Islam dan Moral WP, 2003), prasarana yang tidak kondusif dan sikap pentadbir sekolah yang tidak menyokong kepada pelaksanaan program Pemulihan Pendidikan Khas (Tuzana Mohamad, 2014).

Aktiviti membaca adalah satu proses interaksi antara teks dengan imaginasi seseorang (Yahya Othman, 2008). Penguasaan kemahiran membaca pula merujuk kepada kemampuan sistem saraf seseorang untuk berfungsi dengan sempurna. Sel-sel neuron yang terlibat akan memberi isyarat kepada otak bagi menghasilkan ransangan yang dikesan oleh reseptor deria (Kandel & Schwartz, 1985). Dalam konteks aktiviti membaca untuk Murid Berkeperluan Pendidikan Khas (MBK), terdapat gangguan dari sel neuron otak yang mengakibatkan ransangan tidak dapat diproses secara lancar. Keadaan ini menunjukkan bahawa kondisi MBK adalah berbeza dengan murid normal yang lain dan kemampuan setiap murid adalah berbeza antara satu sama lain (Isahak Haron, 2005). Oleh itu, untuk kelangsungan literasi membaca dalam kalangan MBK, pelbagai faktor perlu di ambil kira seperti faktor bidang kepakaran guru, pedagogi guru, bahan pengajaran dan juga sikap pihak pentadbir bagi memastikan tiada masalah keciciran literasi membaca dalam kalangan MBK.

Permasalahan yang berlaku di sekolah, apabila faktor keperluan MBK ini tidak diambil kira dan sistem aliran perdana murid normal digunakan untuk aktiviti MBK. Keadaan ini secara tidak langsung telah menyebabkan berlakunya keciciran literasi membaca yang serius dalam kalangan MBK di sekolah. Realitinya golongan MBK ini mampu untuk berjaya bersama-sama dengan murid normal lain sekiranya daya intelek golongan MBK ini dirangsang secara maksima dengan sokongan (Aziezatul Nezirah et al., 2019; Ghani & Ahmad 2011) daripada pelbagai aspek seperti kepakaran tenaga pengajar, prasarana yang disediakan dan juga sumber bahan yang bersesuaian. Selain itu, terdapat ransangan sokongan lain yang membantu proses reseptor berlaku dalam kalangan MBK seperti penggunaan fungsi warna, sensori, audio dan sebagainya.

Terdapat lebih 80 ribu murid-murid sekolah di Malaysia yang masih gagal menguasai kemahiran membaca dan menulis (Unit Rendah, Bahagian Sekolah, 2006). Menyedari hakikat tersebut, Kementerian Pendidikan Malaysia mengorak langkah untuk melaksanakan beberapa

program bagi mengatasi permasalahan yang timbul. Terdapat banyak kajian lepas yang melibatkan isu membaca dalam program Pemulihan Khas seperti isu penguasaan 2M, penguasaan literasi dan numerasi (LINUS), masalah keciciran dan sebagainya dalam konteks berkaitan dengan kemahiran membaca dalam bahasa Melayu. Kajian literasi teks bahasa Arab telah bermula sejak 1978 dan banyak kajian literasi teks bahasa Arab dalam kalangan pelajar dijalankan oleh para sarjana di Malaysia (Nur Hidayah & Maharam, 2018). Walaupun begitu, kajian berkaitan dengan literasi membaca teks bahasa Arab yang melibatkan MBK masih terhad dan kurang dijalankan (Aminuddin Khalit, 2015) sedangkan bahasa Arab adalah subjek pilihan dalam kategori bahasa (bahasa Arab, Bahasa Tamil, bahasa Cina, bahasa Kadazandusun dan bahasa Iban) yang terdapat dalam sukatan Kurikulum Standard Sekolah Rendah (KSSR). Menyedari keadaan ini, kajian ini dilakukan untuk mendapatkan data yang jelas berkaitan dengan pandangan, cadangan dan saranan yang melibatkan pihak ibubapa yang mempunyai anak berkeperluan khas dalam pembangunan kerangka literasi teks bahasa Arab MBK berbantuan teknologi augmentasi Realiti bagi murid berkeperluan khas di Malaysia.

Sorotan Literatur

Akta Orang Kurang Upaya 2008 (Akta 685) dilancarkan pada tahun 2008 dalam usaha kerajaan Malaysia memperkasakan OKU di Malaysia. Akta 685 mendefinikan OKU sebagai ‘mereka yang mempunyai kekurangan jangka panjang fizikal, mental, intelektual atau deria yang apabila berinteraksi dengan pelbagai halangan, boleh menyekat penyertaan penuh dan keberkesanan mereka dalam masyarakat (Akta Orang Kurang Upaya, 2008). Antara teras strategi Rancangan Malaysia Kesebelas (RMK11) adalah memperkukuhkan inklusiviti ke arah masyarakat yang saksama. Manakala antara objektif Wawasan Kemakmuran Bersama 2030 ialah pembangunan untuk semua melalui penyertaan masyarakat yang menyeluruh di semua peringkat. Ini menunjukkan kerajaan Malaysia begitu komited dalam memastikan penyertaan inklusif semua lapisan masyarakat tanpa mengira latar belakang, agama, bangsa, pendidikan serta keupayaan termasuklah golongan OKU.

Program Pendidikan Khas Integrasi (PPKI) merujuk kepada Murid Berkeperluan Pendidikan Khas (MBK) yang mengalami masalah pembelajaran, penglihatan dan pendengaran. Program ini dibangunkan di sekolah harian biasa yang menggunakan pendekatan pengajaran dan pembelajaran (PdP) secara pengasingan dan separa inklusif. Ini bermakna program pendidikan khas yang dilaksanakan di Malaysia kini boleh dikategorikan kepada beberapa jenis seperti Sekolah Pendidikan Khas (SPK), program Pendidikan Khas Integrasi (PPKI), Program Inklusif, Program Pemulihan Khas dan Program Bermasalah Pembelajaran Spesifik Disleksia. Murid Berkeperluan Pendidikan Khas (MBK) merujuk kepada kanak-kanak istimewa (luar biasa atau tercabar daripada segi intelek, jasmani, emosi dan sosial) yang mengalami kecacatan, kurang upaya atau ketidaksempurnaan mental atau fizikal (Rashid et al., 2010; Aziezatul Nezirah et al., 2019). Walaubagaimanapun, MBK bukanlah golongan yang tidak berupaya untuk mempelajari atau melakukan sesuatu perkara. MBK adalah golongan yang bermasalah dari segi fizikal, tetapi akal mereka masih boleh digunakan. Begitu juga bagi mereka yang bermasalah dalam pembelajaran, fizikal mereka masih lagi boleh digunakan (Daros et al., 2012). MBK perlu dibimbing agar dapat berfungsi sebagai individu yang berkemahiran, berdikari, berhaluan, boleh merancang, mengurus kehidupan sendiri, boleh menyedari potensi sendiri dan boleh menyesuaikan diri dalam masyarakat selaras dengan Falsafah Pendidikan Khas iaitu ke arah kehidupan bermakna (Ghani & Ahmad 2011).

Program Pendidikan Khas di Malaysia menyediakan sesi PdP untuk membantu MBK menghadapi masalah pembelajaran dalam menguasai sesuatu kemahiran melalui pendekatan motivasi, bahan-bahan pelajaran dan aktiviti-aktiviti alternatif (Aziezatul Nezirah et al., 2019). Sebagai tenaga pengajar MBK, guru perlu memastikan setiap murid mempunyai ilmu dan kemahiran dalam bidang tertentu. Hal ini bagi memastikan agar MBK dapat menjalani kelas dan kehidupan seharian melalui proses PdP. Oleh itu, guru sewajarnya mempunyai pengetahuan, kemahiran, strategi pengajaran dan kebolehan yang mencukupi untuk berhadapan dengan pelbagai cabaran dan ragam MBK (Mohamad & Yaacob, 2013).

Kementerian Pendidikan Malaysia (KPM) telah menyasarkan semua murid berkeupayaan untuk menguasai kemahiran membaca dan mengira semasa di tahap 1. Pelbagai usaha telah dilaksanakan oleh pihak KPM bagi memastikan pencapaian celik huruf dan membaca berjaya dicapai. Antara usaha KPM bagi merealisasikan hasrat ini ialah mewujudkan Program Pendidikan Pemulihan bagi membantu murid-murid yang menghadapi masalah pembelajaran. Murid yang menghadapi masalah keupayaan membaca memerlukan bantuan khusus dalam proses PdP agar mereka dapat menguasai kemahiran tersebut.

Kebanyakan sarjana telah menegaskan pentingnya pengesanan ketidakupayaan membaca dalam kalangan MBK (Abdul Rasid, 2011; Fuziati, 2012) agar tidak menjejaskan pembelajaran subjek yang lain. Antara faktor ketidakupayaan membaca dalam kalangan pelajar MBK ialah keliru dengan bentuk huruf, tidak dapat membunyikan perkataan dengan betul dan lancar, tidak dapat menyebut perkataan yang dieja, meninggalkan perkataan dalam ayat dan tidak boleh membaca ayat-ayat pendek dengan lancar dan intonasi yang betul (Robiah, 1992). Kajian Fuziati (2012), Abdul Rasid (2011) dan Aleimmah (2011) menunjukkan permasalahan ketidakupayaan pelajar MBK untuk membaca dapat dipertingkatkan melalui perancangan aktiviti pengajaran yang menarik, ceria, selesa dan kondusif. Suasana pembelajaran yang selesa dan dorongan daripada guru dapat meningkatkan motivasi dan minat pelajar dalam mengekalkan momentum pembelajaran. Selain faktor PdP, sikap positif guru juga memainkan peranan penting dalam membantu pelajar bagi meningkatkan pembacaan mereka. Abdul Rasid (2011) dalam kajian beliau menegaskan guru seharusnya mempunyai sikap yang positif terhadap imej pelajar MBK yang memerlukan bantuan pemulihan. Guru tidak seharusnya bersikap diskriminasi (Abdullah, 1986) terhadap MBK dan perlu meletakkan diri mereka sebagai kawan dalam membimbing tetapi masih dihormati sebagai seorang guru (Jais & Mat Nor, 1990).

Bagi membimbing MBK dalam pembacaan, kemahiran-kemahiran asas bacaan perlu diperkukuhkan sebelum mereka diajar membaca secara terus (Abdul Rasid, 2011; Mazni, 2007; Zainora, 2005). Kemahiran asas tersebut termasuklah membunyikan huruf abjad, menghubungkan huruf dengan bunyi suku kata, membunyikan suku kata dalam perkataan dan menggabungkan bunyi-bunyi dalam perkataan. Kemahiran-kemahiran ini memerlukan kaedah dan teknik PdP yang sesuai. Mazni (2007) dalam kajiannya menunjukkan peningkatan prestasi pelajar dalam kemahiran membaca melalui kaedah gabungan bunyi kata dan kaedah fonik yang dibuat secara latih tubi. Manakala Aspalela dan Maslinda (2006) dalam kajiannya menunjukkan kaedah dan teknik latih tubi dapat membantu pelajar menguasai kemahiran membatang suku kata terbuka dan tertutup. Manakala, Zainora (2005) telah membuktikan keberkesanan kaedah latih tubi dengan menggunakan kad suku kata. Hasil kajian menunjukkan peningkatan prestasi pelajar yang lemah dalam kemahiran membaca.

Bagi meningkatkan literasi membaca teks bahasa Arab, para guru harus peka dalam beberapa aspek seperti pemilihan teknik pedagogi (Ahmad et al., 2016; Rosni et al., 2016), strategi pengajaran (Linamalini & Kamarul Shukri, 2014), serta bahan bantu mengajar. Kajian literasi membaca teks yang melibatkan bacaan bahasa Arab telah bermula seawal tahun 1978 (Nur Hidayah & Maharam, 2018), namun begitu, belum ada satu formula khusus untuk mengukur tahap literasi membaca teks bahasa Arab (Toeimah & A-IThu'aybi, 2006). Hal ini kerana masih terdapat kelompongan kajian berkaitan pembangunan kerangka literasi membaca teks bahasa Arab. Literasi membaca teks bahasa Arab memerlukan satu kerangka khusus bagi membantu para penyelidik dan guru mengukur sejauhmana literasi membaca teks bahasa Arab dalam kalangan murid.

Dari aspek teknologi, penggunaan teknologi augmentasi realiti (AR) dalam pembelajaran bahasa kedua telah banyak di jalankan di Malaysia namun masih kurang dalam kalangan MBK khusus untuk subjek bahasa Arab. Nurkhamimi et al. (2016) telah menjalankan satu kajian pengajaran kosa kata bahasa Arab menggunakan kad flash AR. Kajian ini telah dijalankan ke atas pelajar bukan penutur jati Arab di Universiti Sains Islam Malaysia (USIM) menggunakan teknik 'scaffolding' untuk membantu pelajar yang mempunyai masalah dalam pembelajaran bahasa Arab. Teknik 'scaffolding' menurut Huang et al. (2013) ialah teknik membantu pelajar dalam proses pembelajaran untuk mencapai objektif dan menguasai bidang ilmu yang dipelajari. Terdapat kajian yang telah dijalankan oleh Nurhazarifah (2016) berkaitan penggunaan teknologi AR dalam pengajaran bahasa Arab ke atas pelajar tahun 1 sekolah rendah. Hasil kajian ini menunjukkan teknologi AR merupakan satu ciri multimedia "edutainment" yang mampu menarik perhatian pelajar semasa proses pembelajaran bahasa Arab.

Selain daripada itu, teknologi AR ini juga dapat memberi peluang kepada ibu bapa yang terlibat dalam proses pendidikan kepada anak-anak mereka di rumah. Manakala, terdapat kajian lain yang telah dijalankan oleh Mohd Akashah (2017) mengenai keperluan, kesediaan dan cadangan pelajar Kolej Permata Insan terhadap penggunaan multimedia dalam pembelajaran kosa kata bahasa Arab menggunakan teknologi aplikasi AR. Kajian ini juga menunjukkan bahawa para pelajar mempunyai tahap kesediaan dalam pelbagai aspek dari segi pengetahuan, kemahiran, dan sikap terhadap penggunaan multimedia AR di samping memilih elemen-elemen multimedia yang terdiri daripada animasi atau video, imej, bunyi dan perkataan yang akan digunakan dalam teknologi AR yang dicadangkan. Mohd Feham Ghalib et.al (2017) melakukan kajian berkaitan dengan tatacara pelaksanaan aplikasi teknologi AR dalam pembelajaran bahasa Arab. Ciri-ciri yang dibincangkan dalam kajian ini merangkumi ciri-ciri yang diperlukan dalam penggunaan teknologi AR untuk tujuan pendidikan dalam membentuk video, animasi 3D, rakaman audio dan interaktiviti.

Sorotan literatur di atas menunjukkan terdapat beberapa faktor yang menyumbang kepada peningkatan keupayaan pembacaan MBK. Antara faktor utama ialah guru seharusnya melakukan saringan awal bagi memastikan pelajar yang mempunyai masalah atau MBK. MBK tidak seharusnya diletakkan di dalam kelas arus perdana kerana ia akan mengganggu proses PdP subjek yang lain. Selain itu, dalam melaksanakan proses PdP dalam kalangan MBK, kaedah dan teknik yang sesuai perlu terokai supaya dapat memberi impak yang positif. Disamping itu, suasana PdP yang menarik, ceria, selesa dan kondusif juga merupakan faktor yang menyumbang keberkesanan kaedah dan teknik yang dijalankan. Faktor yang paling utama ialah sikap guru terhadap MBK. Guru seharusnya sentiasa positif dan bersemangat dalam membimbing MBK dan tidak mendiskriminasikan mereka kerana mereka memerlukan

bimbingan dan sokongan guru untuk mengekalkan motivasi dan minat mereka untuk belajar. Sorotan literatur juga menunjukkan terdapatnya kelompondan kajian berkaitan dengan pembangunan kerangka literasi membaca teks bahasa Arab khusus untuk MBK. Selain itu, terdapat juga kelompondan dalam kajian berkaitan teknologi AR dalam kalangan MBK khusus untuk subjek bahasa Arab. Oleh itu, fokus kajian ini ialah untuk membangunkan satu kerangka literasi membaca teks bahasa Arab berbantuan teknologi augmentasi realiti dalam kalangan MBK. Kerangka ini memerlukan satu kajian khusus bagi memenuhi kehendak dan keperluan MBK untuk meningkatkan literasi membaca teks bahasa Arab mereka dalam menjalani kelestarian hidup. Kerangka literasi membaca teks bahasa Arab ini akan diintegrasikan dengan teknologi augmentasi realiti bagi menarik minat, perhatian serta motivasi MBK untuk membaca.

Objektif Kajian

“Design and Development Research” terbahagi kepada dua iaitu kajian berasaskan produk dan alatan, dan kajian berasaskan model/kerangka. Kajian pembangunan kerangka ini menggunakan kaedah DDR berasaskan model/kerangka yang diadaptasi dari kajian Nor Aziah Alias et al.,(2012), Saedah Siraj et al.,(2013) dan Roslinda Alias (2016). Analisis keperluan terhadap ibubapa ini adalah untuk mendapat pandangan daripada ibubapa yang mempunyai anak-anak berkeperluan khas bagi menentukan komponen-komponen dari aspek prasarana, kepakaran & latihan guru; dan bahan bantu mengajar untuk membangunkan kerangka literasi membaca teks bahasa Arab berbantuan teknologi augmentasi reality (AR) dalam kalangan Murid Berkeperluan Pendidikan Khas (MBK) di sekolah Malaysia.

Metodologi Kajian

Populasi bagi kajian ini merangkumi ibu bapa yang mempunyai anak di Program Pendidikan Khas (PPK), Program Pendidikan Khas Integrasi (PPKI), dan Program Inklusif pada peringkat umur 7 hingga 12 tahun. Kajian ini menggunakan teknik persampelan rawak kluster (random cluster sampling) bagi pemilihan responden kajian bagi setiap Zon. Lokasi kajian dibahagikan kepada lima zon iaitu Zon Utara, Selatan, Tengah, Barat Sabah dan Sarawak. Bagi Zon Utara dan Tengah penyelidik memilih sekolah yang mempunyai Program Pendidikan Khas, manakala Zon Timur dan Selatan penyelidik memilih sekolah yang mempunyai program Pendidikan Khas Intergasi, manakala Sabah dan Sarawak penyelidik memilih sekolah yang mempunyai program inklusif.

Instrumen penyelidikan yang digunakan ialah protokol temu bual separa struktur. Temubual ini merangkumi komponen yang diperlukan dalam membina kerangka literasi membaca teks bahasa Arab berbantuan teknologi AR serta aspek prasarana, kepakaran dan latihan guru; dan bahan bantu mengajar untuk meningkatkan literasi membaca teks bahasa Arab untuk Murid Berkeperluan Pendidikan Khas (MBK). Kaedah yang dijalankan melalui temu bual separa struktur. Protokol temu bual ini akan diberikan kepada pakar bagi tujuan kesahan muka dan kesahan kandungan. Data kualitatif dianalisis menggunakan perisian ATLAS.ti dan dianalisis menggunakan analisis tematik.

Dapatan Kajian

Berdasarkan analisis data temu bual, dapatan kajian yang diperoleh daripada responden menghasilkan empat tema seperti berikut:

Tema 1: Keperluan dari aspek prasarana

Aspek prasarana memainkan peranan yang penting bagi penyediaan suasana yang kondusif untuk pembelajaran MBK. Ini kerana MBK adalah berbeza dengan murid lain yang berada di arus perdana. Pernyataan ini dapat dilihat dalam temubual melibatkan ibubapa di lima zon kajian yang turut melibatkan tiga program iaitu Program Pendidikan Khas (PPK), Program Pendidikan Khas Integrasi (PPKI), dan Program Inklusif. Contohnya responden 1 (R1) Zon Utara (Z1)

R1, Z1: Anak-anak ini adalah anugerah dari Allah, mereka berbeza dan istimewa dari anak-anak yang lain. Dalam penyediaan prasarana di sekolah perlu mengambil kira situasi anak-anak ini agar mereka dapat belajar seperti anak-anak normal lain di sekolah...

Penyediaan prasarana yang sesuai juga penting bagi memastikan pembelajaran MBK tidak tercicir seperti dalam pernyataan responden 3 (R3) dari Zon Tengah (Z2):

R3, Z2: MBK adalah sebahagian dari warga negara, mereka mempunyai hak untuk mendapat pendidikan sama rata sebagai salah seorang warga negara. Pihak kerajaan bertanggung jawab menyediakan prasarana yang mencukupi untuk MBK agar pendidikan mereka tidak tercicir.

Pihak kementerian perlu meluaskan penyediaan prasarana untuk tujuan penyediaan pembelajaran MBK tidak hanya tertumpu di kawasan bandar sahaja seperti pernyataan responden 6 (R6) dari Zon Selatan (Z3):

R6, Z3: Masalah yang ramai ibubapa hadapai ialah tidak ada sekolah yang menyediakan prasarana untuk murid MBK ini. Sekolah yang menyediakan prasarana MBK hanya tertumpu di kawasan tertentu sahaja, sedangkan populasi MBK ini tidak terhad di kawasan-kawasan tertentu sahaja.

Prasarana yang disediakan oleh pihak kementerian/sekolah untuk MBK dapat memberi motivasi dan keyakinan kepada ibubapa bagi menghantar anak-anak MBK mereka ke sekolah, seperti yang dinyatakan oleh responden 12 (R12), Zon Sabah (Z4).

R12, Z4: Dengan adanya sekolah-sekolah untuk MBK ini, ibubapa lebih yakin untuk menghantar anak-anak mereka yang mengalami masalah berkeperluan khas dalam pembelajaran. Ibubapa sedar bahawa MBK adalah tidak sama dengan anak-anak normal yang lain, sekiranya MBK ini belajar dalam arus perdana biasa, boleh menyebabkan tekanan kepada MBK dan inilah antara kerisauan para ibubapa.

Prasarana yang disediakan oleh pihak kementerian adalah prasarana fizikal sekolah dan kelas yang sesuai dengan keperluan MBK. Walaupun begitu ia tidak bermaksud perlu kepada pengasingan yang ketara antara MBK dan murid normal dalam sistem persekolah. Masing-masing mempunyai positif dan negatif. Oleh itu timbang tara yang sesuai perlu dilakukan seperti yang dinyatakan oleh responden 24 (R24) Zon Sarawak (Z5):

R24, Z5: Prasarana fizikal kelas memang perlu disediakan khas untuk MBK ini. Walaupun begitu tidak bermaksud MBK perlu diasingkan terus dari arus perdana sekolah. Sekiranya

pengasingan ini berlaku ia turut memberi kesan negatif kepada MBK. Biarkan mereka bersekolah bersama-sama kawan-kawan mereka di arus perdana, biarkan ada pergaulan antara MBK dan murid normal yang lain. Yang perlu diasingkan adalah kelas mereka. MBK perlu diletakkan dalam kelas khas supaya mereka dapat menguasai apa yang diajar.

Tema 2: Kepakaran dan Latihan Guru

Faktor kepakaran dan latihan guru adalah sangat penting. Dua bidang yang perlu digabungkan secara serentak dalam kajian ini ialah bidang pendidikan awal kanak-kanak yang melibatkan MBK dan bidang literasi membaca bahasa Arab. Isu ini yang sering dipersoalkan oleh ibubapa kerana kebanyakan guru yang mengajar MBK adalah dalam bidang pendidikan awal kanak-kanak tetapi tidak menguasai bidang literasi membaca bahasa Arab dan sebaliknya. Perkara ini yang dinyatakan oleh responden 4 (R4) dari Zon Utara (Z1) dan responden 27 (R27) dari Zon Tengah (Z2):

R4, Z1: Guru-guru yang mengajar MBK terdiri daripada guru yang mempunyai kelayakan ikhtisas dalam bidang pendidikan awal kanak-kanak. Tetapi sukar untuk dapatkan guru yang mempunyai ikhtisas pendidikan awal kanak-kanak dan literasi bahasa Arab secara serentak.

R27, Z2: Kadang-kadang ada guru yang boleh mengajar literasi bahasa Arab, tetapi tidak mempunyai kepakaran dalam bidang pendidikan awal kanak-kanak pula. Kedua-dua bidang ini adalah berbeza.

Perkara utama yang perlu diberi perhatian adalah cara untuk menguruskan aktiviti MBK di dalam kelas. Bidang utama adalah kepakaran dalam bidang pendidikan awal kanak-kanak, manakala bidang literasi membaca bahasa Arab boleh ditingkatkan penguasaannya dari masa ke semasa dengan menghadiri latihan atau bengkel yang disediakan oleh pihak kementerian seperti yang dinyatakan oleh responden 9 (R9) dari Zon Selatan (Z3):

R9, Z3: Kepakaran utama adalah bidang pendidikan awal kanak-kanak, kerana ia berkait langsung dengan MBK. Manakala bidang literasi membaca bahasa Arab boleh dikuasai oleh guru dari masa ke sama dengan menghadiri mana-mana bengkel yang disediakan oleh pihak kementerian. Lagi pula literasi membaca ini bersifat umum dan perkara asas yang didedahkan kepada murid.

Menyangkal pernyataan sebelum ini, responden 17 (R17) dari Zon Selatan (Z3) pula berpendapat bahawa bidang literasi membaca bahasa Arab ini perlu diberi keutamaan berbanding bidang pendidikan awal kanak-kanak. Situasi ini yang banyak berlaku sekarang, guru yang tidak mempunyai kepakaran literasi membaca bahasa Arab mengajarkannya dan menyebabkan MBK tidak dapat menguasai literasi membaca bahasa Arab dengan baik. Ini kerana guru tersebut tidak menguasai kandungan literasi membaca bahasa Arab dan kaedah pengajaran yang sesuai.

R17, Z3: Isunya apabila guru yang bukan dalam bidang literasi membaca bahasa Arab diarahkan untuk mengajar literasi membaca bahasa Arab disebabkan guru-guru ini mempunyai kepakaran dalam bidang Pendidikan awal kanak-kanak. Apa yang berlaku seterusnya, MBK tidak dapat menguasai literasi membaca dengan baik dan akhirnya menyebabkan mereka terus tercicir. Perkara ini perlu diberi perhatian yang serius.

Selain itu, para guru sedia ada perlu ditingkatkan pengetahuan dalam bidang pendidikan awal kanak-kanak yang melibatkan MBK dan juga bidang literasi bahasa Arab. Guru-guru ini perlu bersedia untuk meningkatkan pengetahuan dan kemahiran mereka dengan menghadiri kursus-kursus dan bengkel-bengkel berkaitan. Perkara ini dinyatakan oleh responden 5 (R5) dari Zon Sabah (Z4) dan responden 8 (R8) dari Zon Sarawak (Z5):

R5, Z4: Guru-guru boleh meningkatkan kemahiran dan pengetahuan sama ada dalam bidang pendidikan awal kanak-kanak berkaitan dengan MBK atau dalam bidang literasi membaca bahasa Arab melalui kursus-kursus yang disediakan oleh pihak kementerian atau swasta. Banyak perkara baharu yang perlu dikuasi terutama dalam dunia hari ini.

R8, Z5: Guru perlu ada inisiatif sendiri untuk meningkatkan pengetahuan dan kemahiran diri. Tidak hanya menunggu arahan yang dikeluarkan oleh pihak atasan. Dengan kemajuan teknologi dan maklumat berada diujung jari, banyak maklumat boleh diperolehi dengan mudah.

Tema 3: Bahan Bantu Mengajar (BBM)

BBM memainkan peranan yang penting dalam aktiviti pengajaran literasi membaca bahasa Arab dalam kalangan MBK. Menurut responden 4 (R4), Zon Utara (Z1), BBM yang disediakan perlu mengambil kira keadaan sedia ada MBK agar penggunaannya dapat dilakukan secara efektif:

R4, Z1: BBM yang digunakan oleh guru ketika aktiviti pengajaran literasi membaca bahasa Arab untuk MBK perlu mengambil kira aspek kesesuaian MBK. Penggunaan BBM ini perlu menarik agar dapat merancang kognitif MBK untuk belajar literasi membaca bahasa Arab.

Selain itu, BBM yang disediakan ini perlu bersifat mudah untuk diuruskan, Gabungan elemen warna dan gambar akan dapat merangsang domain kognitif dan afektif MBK untuk bersama-sama mengikuti aktiviti membaca literasi membaca bahasa Arab. Perkara ini dinyatakan oleh responden 9 (R9) dari Zon Tengah (Z2) dan responden 10 (R10) dari Zon Selatan (Z3):

R9, Z2: BBM yang disediakan perlu berkesan penggunaannya untuk membantu MBK menguasai literasi membaca bahasa Arab. BBM ini juga perlu bersifat praktikal dan mudah untuk diuruskan. Dengan kreativiti dari guru, BBM yang kreatif dan berinovasi dapat dihasilkan.

R10, Z3: BBM untuk kegunaan MBK ini perlu menggabungkan elemen gambar, warna dan suara yang menarik. Ketiga-tiga elemen ini dapat merangsang otak dan minat MBK bagi mengikuti aktiviti literasi membaca bahasa Arab.

BBM yang digunakan juga dicadangkan dapat juga digunakan oleh ibubapa ketika berada di rumah. Ia adalah penting sebagai langkah alternatif yang berterusan antara pengajaran di sekolah dan juga di rumah. Ia dinyatakan oleh responden 12 (R12) Zon Sabah (Z4):

R12, Z4: Ibubapa juga perlu didedahkan dengan BBM literasi membaca bahasa Arab dalam kalangan MBK. Kalau ada peluang BBM ini juga dapat digunakan oleh ibubapa ketika di rumah bagi menyokong aktiviti literasi membaca bahasa Arab bagi murid MBK ketika berada di rumah.

Bagi meningkatkan keberkesanan BBM dalam aktiviti pengajaran literasi membaca bahasa Arab untuk MBK, elemen teknologi juga boleh diintegrasikan dalam BBM tersebut. Responden 6 (R6) dari Zon Sarawak (Z5) berpendapat bahawa elemen teknologi sangat penting untuk dimasukkan dalam BBM ini.

R6, Z5: BBM ini perlu juga dimasukkan dengan elemen teknologi. Penggunaan teknologi akan dapat menarik minat MBK dalam aktiviti pengajaran literasi membaca bahasa Arab.

Tema 3: Kesesuaian Teknologi Augmentasi (AR)

Teknologi augmentasi adalah antara teknologi masa kini yang banyak digunakan dan tidak hanya sekadar dalam bidang pendidikan, bahkan meliputi bidang-bidang lain seperti perubatan, keusahawanan dan lain-lain lagi. Mengambil kira perkembangan teknologi augmentasi yang semakin rancak digunakan dalam dunia pendidikan dan keberkesanan penggunaan teknologi augmentasi ini, elemen ini turut digunakan dalam aktiviti literasi membaca bahasa Arab untuk MBK. Teknologi augmentasi ini digunakan sebagai unsur dalam BBM yang merangkumi aspek gambar, suara dan animasi – responden 12 (R12), Zon Utara (Z1):

R12, Z1: Dengan meletakkan teknologi augmentasi dalam BBM yang digunakan, aktiviti literasi membaca bahasa Arab akan menjadi lebih menarik. Penggunaan unsur gambar, suara dan animasi yang sesuai yang dipadankan dengan teknologi augmentasi sekali gus dapat menjadikan aktiviti literasi membaca bahasa Arab lebih berkesan dan menarik.

Selain itu, deria visual dan sensori MBK dapat dirangsangkan dengan penggunaan teknologi augmentasi dalam aktiviti literasi membaca bahasa Arab. Sebagai ibubapa mereka menyedari keperluan kepada penggunaan bahan sokongan seperti teknologi augmentasi bagi membantu merangsang deria visual dan sensori MBK- responden 10 (R10), Zon Tengah (Z2):

R10, Z2: Bahan-bahan sokongan lain seperti penggunaan teknologi augmentasi amat diperlukan bagi merangsang deria visual dan sensori MBK. Ada ketikanya penggunaan bahan mautud sedia ada amat terhad bagi menarik minat MBK untuk mengikuti aktiviti literasi membaca bahasa Arab. Dunia hari ini yang penuh dengan penggunaan teknologi dapat membantu aktiviti pembelajaran MBK.

Selain itu, walaupun pembangunan BBM yang berkonsepkan teknologi augmentasi memerlukan kepada kepakaran, tetapi ia jelas dapat digunakan tidak hanya ketika berada di sekolah sahaja, tetapi dapat diluaskan penggunaannya dalam kalangan MBK ketika tidak berada di sekolah – responden 11 (R11), Zon Selatan (Z3):

R11, Z3: Zaman kita dahulu, teknologi seperti ini tiada dan penggunaan BBM terhad kepada bahan mautud sahaja. teknologi augmentasi adalah sebahagian daripada perkembangan teknologi masa kini yang perlu dimanfaatkan sepenuhnya termasuklah dalam dunia pendidikan MBK. BBM yang dibangunkan dengan berasaskan teknologi augmentasi lebih menarik sekiranya turut dapat digunakan oleh MBK tidak hanya di sekolah sahaja, tetapi ibubapa dapat dilibatkan juga ketika berada di rumah.

Penutup

Kajian analisis keperluan ini adalah penting kepada penyelidik dalam penyediaan elemen-elemen yang diperlukan untuk pembangunan kerangka literasi membaca bahasa Arab MBK dengan berbantuan teknologi augmentasi. Analisis keperluan ini dilakukan kepada ibubapa kerana ibubapa adalah individu yang dekat dan terlibat secara lansung dengan MBK. Maklumat, cadangan dan saranan dari ibubapa diperlukan bagi memastikan kesesuaian kerangka ini untuk MBK dalam menyediakan satu kerangka membaca literasi bahasa Arab untuk MBK dengan berbantuan teknologi augmentasi dan menyelesaikan masalah yang timbul.

Dalam konteks analisis keperluan ini, ibubapa bersetuju bahawa kepentingan pembangunan kerangka literasi membaca bahasa Arab untuk MBK dengan berbantuan teknologi augmentasi. Untuk tujuan pembangunan kerangka literasi ini, 4 perkara yang perlu diberi perhatian dan tumpuan iaitu:

- keperluan dari aspek prasarana
- kepakaran dan latihan guru
- bahan bantu mengajar
- kesesuaian teknologi augmentasi

Menurut Gagne et al. (2005), fasa analisis yang dilakukan dalam sesuatu kajian dapat membantu menyelesaikan beberapa punca permasalahan berkaitan dengan masalah pengajaran dan dapat dikenali pasti. Setelah fasa analisis keperluan yang melibatkan ibubapa ini selesai, analisis keperluan juga akan dilakukan terhadap guru dan pakar dalam bidang berkaitan. Ia adalah penting bagi memastikan kerangka literasi membaca bahasa Arab untuk MBK dengan berbantuan teknologi augmentasi yang dibangunkan adalah lengkap dan merangkumi semua aspek yang diperlukan.

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ISU PENGUASAAN KOSA KATA BAHASA ARAB PELAJAR UiTM DAN APLIKASI MUFRADATI

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Abstract: *Mastery of Arabic vocabulary is a key element to understanding the language. Vocabulary weakness is associated with the weakness of vocabulary. In fact, the issue of Arabic vocabulary mastery is a traditional issue raised by previous researchers, and it continues until now. This is also seen to happen in institutions of higher learning, especially at UiTM Kedah in particular. In an effort to deal with this problem, it requires a step to unravel the issue of student vocabulary and find a solution to help overcome the problem. This study aims to describe the issue of Arabic vocabulary mastery among UiTM Kedah students and create a special platform for vocabulary learning. This study is based on a quantitative approach, using questionnaires as the main instrument of data collection. A total of 144 students were respondents, and the collected data was discussed descriptively using SPSS software (Statistical Package for Social Sciences) version 28. The results show a moderate to high interpretation of the issue of Arabic vocabulary mastery, which leads to the existence of an Arabic vocabulary platform called Mufradati. The implication of the study is support for learning aids that can be practiced among students.*

Keywords: *Arabic Vocabulary, Solution, Platform, Mufradati*

Pengenalan

Dunia hari ini memaparkan kecanggihan dan transformasi teknologi yang serba maju dan terus berkembang lantas memonopoli segala aspek kehidupan. Teknologi tersebut terus berkembang dan ia diwarisi oleh generasi demi generasi yang menjadi peneraju kepada kemajuan sesebuah bangsa dan negara. Kemajuan yang terserlah ini mempengaruhi sistem pendidikan Malaysia kini hingga membawa kepada perubahan demi perubahan dunia pendidikan hingga institusi pengajian tinggi.

Kemunculan teknologi pada masa kini wujud dengan variasi aneka bentuk dan antara yang tumbuh bagaikan cendawan ialah teknologi berkonsepkan aplikasi. Percambahan aplikasi ini menunjukkan perkembangan teknologi semakin mewarnai dan memenuhi ruang perspektif kehidupan. Sebagaimana yang diutarakan oleh Mohd et.al (2022), aplikasi mudah alih sudah menjadi sesuatu yang mesti ada dalam kehidupan yang boleh dimanfaatkan. Secara dasarnya, kehadiran aplikasi bukan hanya sekadar dipraktikkan kepada komunikasi semata-mata malah,

ia merangkumi aspek-aspek lain seperti pembelian dalam talian, pembayaran bil, pencarian maklumat dan lain-lain. Antara pemanfaatan yang boleh diadaptasikan ialah aspek pendidikan untuk semua golongan dan lapisan usia.

Konsep teknologi ini dapat diperhatikan menerusi pembangunan aplikasi dalam telefon pintar yang semakin mudah dikecapi dan ia hanya berada di hujung jari sahaja. Sehubungan itu, ia menjadi satu kelebihan yang digarab oleh para pelajar di insitisi pengajian khususnya yang boleh memanfaatkan dalam pengajian dan pembelajaran. Salah satu skop pembelajaran yang boleh dilaksanakan konsep teknologi ini ialah pembelajaran kosa kata dalam semua bahasa secara umumnya dan khususnya dalam bahasa Arab. Perkara ini selaras dengan napa yang diutarakan oleh Ewais dan Troyer (2019). Beliau berpendapat bahawa salah satu daripada pendekatan atau kaedah pembelajaran yang boleh memudahkan proses abstrak dan kompleks ialah menerusi aplikasi mudah alih. Hakikatnya, ia dianggap sebagai satu nilai tambah dalam pembelajaran berbentuk tradisi atau klasik seperti papan putih, buku nota, buku teks dan lain-lain.

Dalam hal ini, Azzikri (2019) turut mengulas bahawa transformasi teknologi masa kini mengajak pendidik-pendidik dan para pelajar supaya lebih peka terhadap teknologi sebagai usaha meningkatkan kualiti pendidikan yang cemerlang. Salah satu kriteria pengajaran efektif sejajar perkembangan masa kini ialah mempraktikkan elemen media pengajaran sebagai alat bantu dalam pengajaran dan pembelajaran. Kepentingannya begitu mendapat sambutan dan tempat di hati pendidik-pendidik dan pelajar-pelajar. Ini kerana kewujudan teknologi bukan hanya dimanfaatkan dalam aspek kehidupan malah, dalam dunia pengajaran dan pembelajaran dalam apa jua bidang sekalipun.

Melihat kepada pembelajaran bahasa Arab hari ini, Afaria (2020) memberikan sedikit penjelasan bahawa menjadi satu tuntutan kepada pelajar untuk menguasai dan menambahkan saiz kosa kata bahasa Arab. Dalam erti kata yang lain, kosa kata boleh diertikan kepada satu platform berfikir dan ia diperolehi daripada empat kemahiran asas iaitu bertutur, mendengar, membaca dan menulis. Kenyataan Afaria (2020) tersebut selari dengan pandangan yang dikemukakan oleh Koderi (2021). Menurutnya, salah satu elemen bahasa Arab yang tidak boleh dipisahkan ialah kosa kata bahasa Arab yang perlu dikuasai untuk memudahkan pelajar-pelajar mengaplikasikannya. Penguasaan kosa kata tersebut membantu para pelajar untuk mencapai kemahiran asas iaitu membaca, menulis, mendengar dan bertutur. Dalam perkara ini, elemen lain juga perlu diterapkan iaitu media pembelajaran untuk membantu pelajar daripada lupa kosa kata yang dipelajari.

Tinjauan Literatur

Pembelajaran yang melibatkan kosa kata dalam kalangan penutur bukan jati bahasa Arab khususnya dalam kalangan pelajar bukan isu baru. Hal ini telah ditemui dan dirungkaikan oleh pengkaji-pengkaji terdahulu dan ia diteruskan hingga kini. Kebanyakan pengkaji konsensus dengan mengatakan bahawa penguasaan kosa kata dan penguasaan bahasa amat berkait rapat. Perkara ini ditegaskan oleh Aizan et.al (2018) dan Abdul Razif et.al (2016) kerana kemampuan bahasa individu berkait dengan jumlah kosa kata yang dikuasainya.

Dalam kajian Rosni Samah et.al (2023), beliau ada menghuraikan aspek penguasaan kosa kata bahasa Arab dalam bidang sastera dalam kalangan pelajar ijazah sarjana muda bahasa arab di salah sebuah universiti awam. Dalam kajian ini, satu ujian dijalankan bertujuan untuk

mengetahui penguasaan kosa kata pelajar yang berulang dalam bidang sastera Arab. Beberapa perkataan dipilih dan ditapis untuk diuji kepada pelajar tersebut. Hasil daripada ujian tersebut menunjukkan prestasi dan tahap penguasaan kosa kata pelajar di tahap yang lemah. Kelemahan mereka dalam penguasaan kosa kata memberi impak negatif terhadap penguasaan bahasa Arab. Dalam usaha menangani hal ini, beberapa solusi boleh dikenal pasti antaranya ialah strategi pembelajaran kosa kata dengan sebaik boleh.

Dalam kajian Zainur Rijal et. al (2020,) satu pemerhatian dibuat terhadap pelajar di Universiti Sains Islam Malaysia (USIM) tentang penguasaan kosa dengan tujuan untuk menilai kemampuan pelajar menguasai kosa kata. Responden terdiri daripada 59 orang pelajar Fakulti Pengajian Bahasa Utama (FPBU) dan mereka akan menjalani satu ujian penguasaan kosa kata. Beberapa kosa kata dipilih secara berkala dari senarai *Corpus of Contemporary Arabic (CCA)*. Hasil kajian yang diperoleh menunjukkan penguasaan kosa kata dalam kalangan para pelajar berada pada skala yang rendah berdasarkan ujian yang dijalankan. Tahap penguasaan kosa kata pelajar-pelajar terhad kepada kemampuan untuk membezakan perkataan berbentuk kata kerja dan kata nama.

Kajian yang dilakukan oleh Zainur Rijal et.al (2020) diperkukuhkan lagi dengan kajian Hasnurol (2020). Menurutnya lagi, leksikografi dan morfologi Arab merupakan sebab utama seorang pelajar ingin menguasai bahasa khususnya dalam sistem pembelajaran di Malaysia yang merupakan bahasa kedua atau bahasa asing. Kegagalan menguasai bahasa Arab berpunca daripada kelemahan mengetahui makna perbendaharaan kata. Ini kerana perbendaharaan kata ialah kunci asas dalam mempelajari apa-apa bahasa sekalipun. Dapatan kajian menunjukkan bahawa terdapat 40 kajian dihasilkan berkisarkan tentang aspek makna dan penggunaan kosa kata menerusi pembelajaran dan pengajaran morfologi.

Beralih pula kepada strategi pembelajaran kosa kata Arab, Nur (2022) dalam kajiannya ada mengatakan bahawa aplikasi boleh dipraktikkan sebagai bahan bantu mengajar untuk menambahkan lagi alat mengajar dalam bahasa Arab. Kebergantungan kepada papan putih dan dakwat sepenuhnya dilihat kurang berkesan dalam pembelajaran kosa kata. Realitinya, alat bantu mengajar yang efektif dapat memberi pemanfaatan kemahiran bahasa Arab. Pandangan tersebut dikuatkan lagi dengan Hapsari & Zulherman (2021) iaitu elemen penting penguasaan bahasa Arab ialah kosa kata. Sebagai guru atau pendidik, pendekatan dalam pembelajaran bahasa Arab perlu dimiliki sesuai dengan peredaran semasa untuk meningkatkan saiz kosa kata pelajar. Antara media yang boleh dipraktikkan ialah Canva iaitu aplikasi reka bentuk grafik dalam talian. Ia boleh digunakan sebagai bahan bantu pembelajaran seperti poster, video, media sosial, pembentangan dan sebagainya.

Senario yang dipamerkan dalam semua pengkajian ini dapat dilihat pada pelajar UiTM khususnya di kampus Kedah berkaitan kelemahan kosa kata yang dikuasai oleh mereka. Kelemahan kosa kata ini dapat dilihat melalui penghasilan skrip-skrip simulasi dan lakonan (*role-play*) yang dihasilkan oleh mereka agak kurang memuaskan dan memberangsangkan. Ini menggambarkan tahap dan kemampuan pelajar-pelajar terhadap penguasaan kosa kata mereka sendiri. Maka, timbul beberapa persoalan yang berkaitan aspek kosa kata. Ini bermakna penguasaan pelajar terhadap kosa kata yang dipelajari menjadi kunci dan langkah pertama memahami bahasa tersebut serta menguasai tajuk pembelajaran dengan baik. Justeru, kajian ini bertujuan untuk membincangkan isu penguasaan kosa kata bahasa Arab pelajar UiTM Kedah dan mewujudkan aplikasi berbentuk prototaip kosa kata Arab iaitu *Mufradati*.

Metodologi

Kajian ini kajian kuantitatif berbentuk deskriptif untuk menerokai isu penguasaan kosa kata dalam kalangan para pelajar UiTM. Data terkumpul dianalisis secara deskriptif yang bertujuan mendapatkan isu-isu utama tentang masalah kosa kata pelajar. Data dalam kajian ini adalah hasil daripada soal selidik yang diadaptasi daripada soal selidik Nurahimah dan Muhammad Nidzam (2016) dengan beberapa pengubahsuaian. Kemudian, kesahan terhadap soal selidik dibuat dengan bantuan pakar. Soal selidik ini menggunakan skala Likert iaitu 1 = sangat tidak setuju (STS), 2 = tidak setuju (TS), 3 = Neutral (N), 4 = setuju (S) dan 5 = sangat setuju(SS). Item dalam soal selidik mengandungi tiga (3) bahagian iaitu:

Bahagian A: Demografi

Bahagian B: Isu penguasaan kosa kata Arab

Bahagian C: Penggunaan peranti telefon

Lokasi kajian

Kajian ini dijalankan di Universiti Teknologi Mara (UiTM) iaitu di Akademi Pengajian Bahasa dan UiTM kampus Kedah. UiTM Kedah dipilih sebagai lokasi kajian kerana ia menawarkan kod kursus bahasa ketiga (bahasa Arab) pada setiap semester.

Populasi dan Persampelan

Populasi kajian terdiri daripada 230 orang mahasiswa UiTM Kedah. Saiz sampel pula terdiri daripada 144 orang mahasiswa dari program ijazah sarjana muda yang mengambil kursus bahasa Arab dipilih secara rawak mudah. Mereka ialah mahasiswa yang mengambil kursus bahasa Arab TAC401 (*Introductory Arabic Part 1*). Saiz sampel ini ditentukan berdasarkan kepada penentuan saiz yang digariskan Krejcie & Morgan (1970).

Analisis Data

Dapatan hasil kajian dianalisis secara deskriptif melalui perisian SPSS (*Statistical Package for the Social Sciences*) versi 28. Pengumpulan data dan maklumat kajian ini dibincangkan secara deskriptif yang membabitkan peratusan, min dan kekerapan. Kaedah deskriptif ini bertujuan mendapatkan nilai yang tepat dan membantu memperhalusi isu kosa kata. Kesudahannya akan membuahkan solusi yang boleh dibina untuk mengatasi masalah tersebut. Dapatan yang telah diperoleh dihuraikan berpandukan interpretasi skor min yang diadaptasi daripada Nunnally dan Bernstein (1994).

| Skor Min | Interpretasi |
|-----------------|---------------------|
| 1.00-2.00 | Rendah |
| 2.01-3.00 | Sederhana rendah |
| 3.01-4.00 | Sederhana Tinggi |
| 4.01-5.00 | Tinggi |

Source: Nunnally dan Bernstein (1994)

Dapatan dan Perbincangan

Dapatan kajian dibentangkan kepada jadual berikut mengikut kepada item soal selidik yang telah ditetapkan.

Demografi

Jadual 2 menunjukkan taburan data responden yang melibatkan beberapa item seperti berikut:

Jadual 2: Demografi

| Bil | Item | Bilangan/Peratus |
|----------------------|--------------|-------------------|
| Jantina | | |
| 1 | Lelaki | 38 (26.3%) |
| | Perempuan | 106 (73.6%) |
| Kemahiran ICT | | |
| 2 | Tidak Mahir | 0 (0%) |
| | Kurang Mahir | 23 (16%) |
| | Mahir | 115 (80%) |
| | Sangat Mahir | 6 (4%) |
| Jumlah | | 144 (100%) |

Jadual 2 menunjukkan jumlah responden kajian ini terdiri daripada lelaki seramai 38 (26.3%) dan perempuan sebanyak 106 (73.6%). Bilangan responden perempuan lebih ramai daripada responden lelaki. Tahap kemahiran ICT responden dikategorikan kepada empat kategori iaitu sangat mahir seramai 6 orang (4%), kategori mahir sebanyak 115 (80%), kategori kurang mahir pula sebanyak 23 (16%) dan tidak mahir ialah 0.

Isu Penguasaan Kosa Kata Arab

Jadual 3 menunjukkan taburan data berkaitan masalah kosa kata Arab dalam kalangan pelajar seperti berikut:

Jadual 3: Isu Penguasaan Kosa Kata Arab

| Bil | Item | STS | TS | N | S | SS | Min |
|-----|--|--------------|---------------|---------------|---------------|---------------|------|
| 1 | Tiada strategi pembelajaran | 9 (6.3%) | 39 (27.1%) | 47 (32.6%) | 45 (31.3%) | 4 (2.8%) | 2.97 |
| 2 | Kaedah pengajaran yang tidak menarik | 12 (8.3%) | 43 (29.9%) | 53 (36.8%) | 31 (21.5%) | 5 (3.5%) | 2.82 |
| 3 | Alat pengajaran yang tidak berkesan | 10 (6.9%) | 54 (37.5%) | 45 (31.3%) | 31 (21.5%) | 4 (2.8%) | 2.76 |
| 4 | Kekurangan aktiviti pembelajaran yang mengkhususkan kepada kosa kata | 8 (5.6%) | 39 (27.1%) | 47 (32.6%) | 42 (29.2%) | 8 (5.6%) | 3.02 |
| 5 | Kesukaran menguasai makna perkataan | 8 (5.6%) | 23 (16%) | 37 (25.7%) | 58 (40.3%) | 18 (12.5%) | 3.38 |
| 6 | Kesukaran menguasai sebutan perkataan | 12 (8.3%) | 32 (22.2%) | 46 (31.9%) | 44 (30.6%) | 10 (6.9%) | 3.06 |

| | | | | | | | |
|---------------|------------------------------------|--------------|---------------|---------------|---------------|---------------|------------|
| 7 | Kesukaran mengeja perkataan Arab | 10 (6.9%) | 35 (24.3%) | 37 (25.7%) | 48 (33.3%) | 14 (9.7%) | 3.15 |
| 8 | Kesukaran menghafal kosa kata Arab | 10 (6.9%) | 29 (20.1%) | 36 (25%) | 52 (36.1%) | 17 (11.8%) | 3.26 |
| 9 | Masalah komunikasi Arab | 5 (3.5%) | 19 (13.2%) | 42 (29.2%) | 58 (40.3%) | 20 (13.9%) | 3.48 |
| Jumlah | | | | | | | 3.1 |

Berpandukan jadual 4, dapat diperhatikan skor min bagi isu penguasaan kosa kata Arab dalam kalangan responden. Pernyataan satu (1) menunjukkan skor min 2.97 bagi masalah tiada strategi pembelajaran interpretasi sederhana rendah. Ini gambaran kepada sebahagian daripada responden tiada strategi pembelajaran kosa kata bahasa Arab. Pernyataan dua (2) menunjukkan skor min 2.82 dengan interpretasi sederhana rendah terhadap isu kaedah pengajaran yang tidak menarik. Ini menjadi penanda aras dan nilai tambah kepada kaedah pengajaran yang perlu dipertingkatkan kualiti dan ditambah baik. Tidak kurang juga pernyataan tiga (3) menyumbang kepada nilai skor min sebanyak 2.76 dengan interpretasi sederhana rendah yang menjadi kayu ukur kepada keberkesanan alat pengajaran dalam penguasaan kosa kata Arab dalam kalangan responden.

Pernyataan empat (4) pula berkait rapat dengan kekurangan aktiviti pembelajaran yang mengkhususkan kepada kosa kata menunjukkan skor min sebanyak 3.02 dengan interpretasi sederhana tinggi. Oleh itu, ini menunjukkan penekanan terhadap aktiviti pembelajaran kosa kata Arab adalah relevan dan perlu diberi penekanan. Pernyataan lima (5) menunjukkan tahap kesukaran menguasai makna perkataan dalam kalangan responden memberikan angka skor min sebanyak min 3.38 dengan interpretasi sederhana tinggi. Tambahan lagi, kesukaran menguasai sebutan perkataan dengan skor min 3.06 memberikan gambaran terhadap kelemahan responden dengan sebutan perkataan Arab dan bersetuju secara konsensus dengan masalah tersebut serta memerlukan tunjuk ajar.

Pernyataan tujuh (7) dan lapan (8) berhubung kait dengan kesukaran mengeja perkataan Arab dan kesukaran menghafal kosa kata Arab menunjukkan skor min masing-masing iaitu iaitu 3.15 dan 3.26. Ini satu tamparan hebat daripada responden yang bersetuju terhadap isu tersebut dan memerlukan nilai tambah terhadap isu ini. Manakala pernyataan sembilan (9) pula menunjukkan nilai skor min tertinggi sebanyak 3.48 dan majoriti responden bersetuju bahawa mereka memerlukan satu platform khusus untuk menguasai komunikasi dengan kosa kata Arab. Hasil dapatan ini dapat dilihat interpretasi skor min menerusi jadual berikut:

Jadual 4: Interpretasi Skor Min Isu Penguasaan Kosa Kata Arab

| Bil | Item | Min | Interpretasi |
|-----|--|------|------------------|
| 1 | Tiada strategi pembelajaran | 2.97 | Sederhana rendah |
| 2 | Kaedah pengajaran yang tidak menarik | 2.82 | Sederhana rendah |
| 3 | Alat pengajaran yang tidak berkesan | 2.76 | Sederhana rendah |
| 4 | Kekurangan aktiviti pembelajaran yang mengkhususkan kepada kosa kata | 3.02 | Sederhana tinggi |
| 5 | Kesukaran menguasai makna perkataan | 3.38 | Sederhana tinggi |
| 6 | Kesukaran menguasai sebutan perkataan | 3.06 | Sederhana tinggi |
| 7 | Kesukaran mengeja perkataan Arab | 3.15 | Sederhana tinggi |
| 8 | Kesukaran menghafal kosa kata Arab | 3.26 | Sederhana tinggi |

| | | | |
|---|-------------------------|------------|-------------------------|
| 9 | Masalah komunikasi Arab | 3.48 | Sederhana tinggi |
| | Jumlah | 3.1 | Sederhana tinggi |

Penggunaan Peranti Telefon

Jadual 5 menunjukkan penggunaan peranti dalam kalangan responden terdiri daripada pengguna android OS dan iPhone Os. Android OS menjadi pilihan utama dengan jumlah sebanyak 74 (51.4%) manakala iPhone Os menjadi pilihan kedua tertinggi peranti dengan jumlah 70 (48.6%). Beralih kepada kemudahan capaian internet, rata-rata penggunaan internet lebih cenderung kepada penggunaan internet secara wifi atau wireless dengan jumlah sebanyak 108 (75%). Rasionalnya, capaian internet secara wifi lebih mudah untuk dijaringkan dalam apa jua peranti sama ada telefon pintar atau komputer riba.

Diikuti capaian internet kedua tertinggi ialah akses internet berwayar dengan jumlah sebanyak 24 (16.7%). Penggunaan internet jalur lebar (*broadband*) pula merekodkan jumlah seramai 12 (8.3%). Dari aspek kemudahan pelayar internet, terpampang dengan jelas bahawa pelayar internet utama responden ialah Google Chrome sebanyak 110 (76.4%). Hal ini berlaku disebabkan Google Chrome ialah pelayar internet yang pantas dan mudah. Diikuti pula Safari mendapat tempat kedua dalam kalangan responden dengan jumlah 30 (20.8%) dan ketiga ialah Microsoft Edge dan Opera sebanyak 2 (1.4%).

Jadual 5: Penggunaan Peranti Telefon

| Bil | Item | Bilangan/Peratus |
|------------|---|-------------------------|
| 1 | Sistem Pengendalian Telefon Pintar | |
| | Android OS | 74 (51.4%) |
| | iPhone Os/iOS | 70 (48.6%) |
| 2 | Kemudahan Capaian Internet | |
| | Akses internet berwayar | 24 (16.7%) |
| | Internet (WiFi/Wireless) | 108 (75%) |
| | Langganan internet jalur lebar (<i>broadband</i>) | 12 (8.3%) |
| 3 | Kemudahan Pelayar Internet | |
| | Google Chrome | 110 (76.4%) |
| | Microsoft Edge | 2 (1.4%) |
| | Opera | 2 (1.4%) |
| | Safari | 30 (20.8%) |

Secara dasarnya, responden memberikan refleksi positif terhadap soal selidik. Respon yang diterima menunjukkan tahap pembelajaran kosa kata bahasa Arab dalam kalangan responden. Justeru, dapat dikatakan bahawa pembelajaran kosa kata bahasa Arab boleh dijalinkan dengan dengan platform teknologi yang boleh menjadi penyeri dan penghibur dalam pembelajaran kosa kata. Selain itu, dapatan juga menunjukkan majoriti pelajar mahir dengan kemahiran ICT dan ini satu bonus kepada mereka yang hidup di zaman berteknologi. Ini menjadi satu transformasi pembelajaran kepada platform teknologi bersesuaian dengan senario generasi masa kini yang lebih mesra dengan teknologi.

Oleh itu, ini membuahkan cadangan kepada kewujudan platform pembelajaran kosa kata bahasa Arab yang dikenali sebagai *Mufradati*. Platform ini lebih berbentuk aplikasi atau prototaip yang

dibangunkan bagi membantu proses pembelajaran kosa kata bahasa Arab lebih menarik dan tidak membosankan. Apa yang dinyatakan ini bersesuaian dengan kenyataan Cahyani et.al (2021) bahawa reka bentuk kosa kata bahasa Arab yang ingin dibangunkan boleh membantu kosa kata dan pemahaman para pelajar. Kesuma (2021) juga menyatakan pandangan bahawa pendekatan dan media pembelajaran harus dikembangkan supaya pelajar-pelajar tidak bosan dengan pendekatan yang dilaluinya.

Aplikasi Kosa Kata Bahasa Arab Mufradati

Aplikasi *Mufradati* ini dibangunkan sebagai memenuhi keperluan pelajar UiTM Kedah dalam pembelajaran kosa kata Bahasa Arab. Aplikasi yang diwujudkan ini mengandungi beberapa komponen seperti berikut:

Paparan Muka Hadapan Aplikasi

Aplikasi ini dimulakan dengan paparan muka hadapan. Paparan tersebut memerlukan email dan kata laluan untuk masuk ke dalam kandungan modul. Paparan seterusnya akan terpapar dan membawa pengguna untuk membolehkan pengguna meneroka setiap kandungan yang ada.



Rajah 1: Paparan Muka Hadapan

Pembinaan Kandungan Aplikasi



Rajah 2: Kandungan Modul

Paparan skrin menu utama dalam rajah 2 mengandungi modul yang dimuatkan dalam aplikasi tersebut. Dalam skrin menu dipaparkan tajuk pelajaran sebagaimana yang telah disusun dalam silibus. Pengguna boleh memilih dan menekan bebutang tajuk pelajaran kandungan modul untuk menerokai kandungan pelajaran. Setiap topik pelajaran tersebut mengandungi kosa kata dan konten lain untuk pengguna.

Pembinaan Tajuk dan Aktiviti



Rajah 3: Tajuk Dan Aktiviti

Pembinaan skrin tajuk dan aktiviti akan memaparkan kosa kata dan aktiviti yang tersedia dalam modul tersebut. Pengguna boleh menekan butang kosa kata untuk melihat senarai kosa kata yang tersenarai dalam modul beserta dengan contoh penggunaan kosa kata dalam ayat. Butang

aktiviti pula memaparkan aktiviti untuk pengguna sebagai pengukuhan dan refleksi kepada kosa kata yang dipelajari.

Paparan Skrin Menu Kosa Kata



Rajah 4. Skrin Menu Kosa Kata

Rajah 4 menunjukkan paparan menu kosa kata yang tersenarai dalam aplikasi. Pengguna mempunyai kebebasan untuk memilih mana-mana butang perkataan yang diinginkan dan setiap kosa kata tersebut akan memaparkan contoh penggunaannya dalam ayat. Kemudian, pengguna boleh mendengar audio sebutan perkataan tersebut dalam contoh ayat sebagaimana dalam rajah 5.



Rajah 5: Audio Perkataan

Paparan Skrin Aktiviti

Skrin aktiviti akan dipaparkan sekiranya pengguna menekan butang aktiviti. Dalam paparan aktiviti ini, dipaparkan kuiz sebagai latihan kosa kata untuk pengguna dan beberapa perkataan

tersenarai dan terdapat pilihan jawapan disertakan. Pengguna boleh memilih jawapan yang sesuai dengan perkataan yang terpampang dan setelah selesai aktiviti tersebut, markah akan dipamerkan sepertimana dalam rajah 6.




الدَّرْسُ الْأَوَّلُ - الْأَنْشِيطَةُ - ١

Kuiz 1 : Aneka Pilihan

| Pilihan Jawapan | Soalan | Bilangan |
|-----------------|-------------|----------|
| -Jawapan- | تَعْمَلُ | (1) |
| -Jawapan- | أَنْظِفُ | (2) |
| -Jawapan- | أَغْسِلُ | (3) |
| -Jawapan- | أَسَاعِدُ | (4) |
| -Jawapan- | أَشَاهِدُ | (5) |
| -Jawapan- | أَسْتَرِيخُ | (6) |
| -Jawapan- | نَنْتَقِي | (7) |

الدَّرْسُ الْأَوَّلُ - الْأَنْشِيطَةُ - ٢

Kuiz 2 : Suai Padan

| Gambar/Kalimat | Jawapan | Soalan | Bilangan |
|---|---------|-----------|----------|
|  | | أَسَاعِدُ | (1) |
|  | | يَنْظِفُ | (2) |
|  | | تُرَاجِعُ | (3) |

Rajah 7: Aktiviti Suai Padan

Rajah 7 menunjukkan aktiviti kedua yang dimuatkan dalam modul aplikasi ini yang disebut aktiviti suai padan. Setelah selesai aktiviti pertama dilakukan, pengguna boleh beralih pula ke aktiviti kedua. Kos kata akan tertera dalam aktiviti kedua ini dan pengguna dikehendaki untuk menyuaikan perkataan-perkataan tersebut dengan gambar sebagai padanan sesuai.

Kesimpulan

Kesimpulannya, hasil kajian menjawab kepada isu pembelajaran kosa kata Bahasa Arab dan keperluan aplikasi. Tuntasnya, penerapan aplikasi dalam pembelajaran kosa kata ialah elemen menyeronokkan kerana wujud elemen teknologi. Pembelajaran kosa kata bahasa Arab boleh diperkayakan dengan kreativiti dan inovasi yang boleh dipraktikkan dalam pengajaran dan pembelajaran. Natiujahnya, elemen media dalam pembelajaran bukan sahaja meningkatkan motivasi malah boleh meningkatkan minat para pelajar khususnya UiTM Kedah lebih fleksibel ketika menjalani proses pembelajaran. Platform ini dapat membantu meningkatkan kemahiran kosa kata bahasa.

Penghargaan

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HERITAGE BRANDING AS REBRANDING STRATEGY IN HIGHER EDUCATION: A NELSON MANDELA UNIVERSITY CASE STUDY

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Abstract: *Heritage branding has its unique characteristics, and “the living history” that constitutes part of the brand provides organizations an opportunity to link nostalgia, positive emotions, feelings, and lessons from the past with the culture of the organization. This study focuses on assessing the brand awareness, brand associations, and brand loyalty of internal stakeholders after Nelson Mandela Metropolitan University rebranded itself to Nelson Mandela University, incorporating heritage branding in the process. A quantitative and descriptive research design was implemented, and data was obtained through a computer-aided self-administered web-based survey. A total of 567 respondents took part in the study. Although respondents were aware of the new brand after the rebranding process, they did not associate very well with it. Respondents were less positive about brand associations than brand awareness. Although respondents did not understand the reason for the rebranding, they acknowledged that they trust the new brand and that it will be beneficial in the future to say they worked and studied at Nelson Mandela University. Respondents confirmed that they were loyal to the new brand and would recommend it to others.*

Keywords: *Heritage Branding; Rebranding; HEI; Brand Associations; Brand Awareness*

Introduction

Corporate branding and rebranding have acquired increasing importance in higher education (Dogan, 2014; Mogaji, Maringe & Hinson, 2020; Nurko, 2003). The implementation of branding and rebranding strategies remains imperative, as HEIs compete in international markets for skilled academics, talented students, employees, and other qualified resources. In many instances, rebranding strategies are employed to elicit distinctive personality traits in audiences’ minds and to improve the university’s perceived credibility (Peluso and Guido, 2012). This was indeed the case with Nelson Mandela Metropolitan University.

Bearing the name of the iconic Nelson Mandela comes with great prestige and responsibility. In 2015, the Nelson Mandela Foundation bestowed the honor of using Nelson Mandela’s name on Nelson Mandela Metropolitan University (NMMU), and on the 20th of July 2017, NMMU rebranded to Nelson Mandela University. The rebranding of NMMU to NMU was described as the next step in the evolution into a game-changing African university (News24, 2017; NMU, 2019). NMU incorporated heritage branding as part of the rebranding strategy of the university.

Scholars have, to a great extent, focused on the heritage of corporate brands and corporate branding (Balmer & Greyer, 2006; Balmer, Powell, Kernstock & Brexendorf, 2017; Garas, Mahran & Mohammed, 2018; Urde, Greyser & Balmer, 2007); corporate heritage identity

(Balmer & Powell, 2011; Maaier & Andersen, 2017); corporate heritage identity management (Balmer & Powell, 2011; Burghausen & Balmer, 2014); and heritage branding orientation (Balmer, 2017; Santos, Burghausen & Balmer, 2016; Rindell, Santos & de Lima, 2015). Although the literature has mainly focussed on how corporate heritage can influence and be leveraged in corporate branding (Anisimova & Brunninge, 2018; Javidi, Raga, Waronen & Orrstenius, 2017) only a small amount of research has focussed on heritage branding (Pecot & De Barnier, 2017; Pecot, Valette-Florence & De Barnier, 2019; Santos et al, 2016).

Santos et al. (2016) called for more research into the notion of materiality in heritage strategies in the context of different stakeholder groups, strategic purposes, as well as product categories, and industry contexts. Wuestefeld, Hennings, Schmidt, and Wiedmann (2012) claim that little research has been conducted on the influence of heritage branding on an already established corporate brand, indicating a gap in the literature. A supposition was made that brands do not similarly use their heritage in innovative and traditional markets, and that more research should be conducted that would lead to a better understanding of the brand heritage phenomenon in general (Mogaji et al. 2020) and that scholars should address the shortfall of theoretical insight on branding and rebranding of HEIs in an African context.

Purpose

This article intends to improve the cumulative body of literature on branding in HEIs in Africa and South Africa and to answer the calls for more research into the explanation of heritage branding as a phenomenon. In addition, this article endeavors to assess the impact of heritage branding on the brand associations' brand awareness and brand loyalty of internal stakeholders after the rebranding of Nelson Mandela University.

To achieve the aim and objectives, the article is structured as follows. Firstly, the article provides an overview of branding in HEIs and rebranding in general, then the concepts of brand heritage and heritage branding are discussed. Secondly, the methodology applied in the study is discussed. Thirdly, the analysis and discussion of the results are provided. Fourthly, recommendations and conclusions are provided. Finally, the limitations and future research are provided.

Literature Review

Branding of HEI

HEI brands, specifically university brands, can be seen as the manifestation of the institution's features that distinguishes it from others, engenders trust in its ability to deliver a certain level and type of higher education, reflects its capacity to satisfy students' needs, and assists potential recruits to make wise enrolment decisions (Bennett & Ali-Choudhury, 2009; Sujchaphong, Nguyen & Melewar, 2017; Williams & Omar, 2014). Graduates perceive a sense of identification and a way of defining themselves in the name of an HEI, as the HEI brand bestows a certain level of social status upon them (Williams & Omar, 2014). The university's name, therefore, becomes the most important indicator of the brand value of the university and is closely associated with the image of the organization (Dogan, 2014; Foroudi et al. 2020). This brand status matters, not only to students and alumni but also to other internal and external stakeholders.

Rebranding

Although HEIs are organizations, their reasoning for rebranding might differ from those of corporate organizations. Williams and Omar (2014) proclaim that HEI rebranding strategies occur mainly as a result of mergers between institutions, honoring a philanthropic donor, mission alignment, counteracting declining enrolments, trying to reduce competition, and enhancing image and prestige. Although the rebranding of NMMU does not fit within the four rebranding categories of Muzellec (2006), it resonates with the “enhancing image and prestige” rebranding category of Williams and Omar (2014). In the process of rebranding, NMMU encountered heritage branding.

Corporate Heritage and Heritage Branding

Corporate heritage branding and heritage branding should not be confused. Corporate marketing scholars such as Balmer and Powell (2011; 2013); Burghausen and Balmer (2014) and Sammour, Chen, and Balmer (2020) proclaim that corporate heritage is a unique *institutional* trait or collection of traits of an organization. This particular trait constitutes an actual or potential corporate asset and strategic resources can be leveraged for it. Urde et al. (2007) probably provided the most cited definition of brand heritage as “a dimension of a brand’s identity found in its track record, longevity, core values, use of symbols and particularly in an organizational belief that its history is important”.

Many brands can thus have a heritage, but only a few can be categorized as heritage brands. The branded representation of the past, present, and future timeframes can be defined as brand heritage (Balmer & Burghausen, 2019; Pecot & De Barnier, 2017; Urde, Greyser, & Balmer, 2007). Keller and Lehman (2006) denote that a set of associations based on historical references can be considered as the extrinsic attribute of brand heritage. Four pillars of a brand’s heritage, namely history, expectancy, image, and equity are described by Banjeree (2008). The rich eventful past represents the history, whilst the benefits enjoyed by the consumers as a result of the brand communication and positioning, reflect the image. The word heritage can therefore be associated with inheritance where historic values are carried from one generation to another according to Hakala, Lätti, and Sandberg, (2011). As a result, consumer researchers need to consider the effect of the consumer’s perceptions of the brand heritage salience and ultimately their overall perception of the brand (Rindell, Santos, & De Lima, 2015; Heritage brands are also described as the oldest brands in their respective categories. Aaker (1996) asserts that the ‘sincerity’ characteristics of the brand, namely being trustworthy, familiar, honest, caring, unassuming, and authentic, add to the strong value associated with these brands. This sentiment is shared by Stewart-Allen (2002) who posits that consumers seek out brands with genuine history and authenticity in a word of “increasing over choice” and that it is found in heritage brands that appear to have strong global roots. Pecot, Valette-Florence, and De Barnier (2019) however opine that authenticity (which is seen as a quality of being true or genuine) is distinct from brand heritage. Pecot et al. (2019) and Burghausen and Balmer (2014) agree that there are conceptual similarities: that heritage is an attribute of authenticity, which implies authenticity, and that can be a source of authenticity. The supposition can therefore be made that brand authenticity appears to be broader than heritage as it can be seen as being responsible, and the observation of a brand true to its customers and itself assists the consumers to stay true to themselves.

Brand heritage is an important driver for customers' perceived value of a product/service brand as it has a positive impact on cognitive, affective, and intentional consumer responses (Balmer & Chen, 2017). Although heritage brands have a positive impact on customer responses, two variants of age-related problems in heritage branding were identified by Aaker (1996). Firstly, heritage brands need to appeal to younger generations, often teens or those in their early twenties, and secondly, heritage brands associated with high-tech or durable goods are often not viewed as being cutting edge. To overcome the heritage brand age barrier, three strategies are proposed by Aaker (1996): a radical change in the brand identity, evolving the brand identity, or augmenting the brand identity. In most cases, organizations opt for the latter option – augmenting the brand identity – as it can be accomplished through changes in the name, slogan, and symbol, product extensions, and emotional benefits (Liebrenz-Himes, Shamma & Dyer, 2007). This was also the case for Nelson Mandela University.

Credibility to the idea of heritage branding of ordinary people has mainly been derived from the tourism landscape where some market segments are demanding more impartial narratives and balanced memories (Pfannes, Meyer, Orth, & Rose 2021; Timothy, 2018). A series of events in a specific order with a beginning, a middle, and an end, can be described as stories, tales, or accounts and can be defined as a narrative. Jacobsen (2020) asserts that it is therefore not uncommon that icons, described as the 'symbolic image that is rooted in the consumers' external world' are seen as a key part of heritage branding. The concept of omni-temporality (linking the time frames of past, present, and future) is widely discussed as an element of heritage in corporate heritage literature (Balmer & Burghausen, 2019). Although this concept is mainly used by corporates the create strategic brand management, Rose et al (2017) declare that the past-present link is important to universities as brands. Related constructs to brand heritage include icon branding (culturally driven branding with symbolic content (Briciu & Briciu, 2020); historical branding (Olins 2002); retro branding (re-launching of historical brands), Ertz and Marticotte, 2018); monarchic branding (a country using its monarchy to symbolize nationhood for a country, Balmer & Powell, 2011) and nostalgic branding (linking the past to the present, Baker & Azzari, 2020).

Baby boomers are said to latch onto retro, heritage, and icon brands in a quest to recapture their lost youth whilst Generation Y consumers were too young to experience these brands. Balmer and Burghausen (2015) claim that brand heritage can also be seen as an extrinsic attribute, or the set of associations of consumers based on their historical references. Jacobsen (2020) claims that Generation Y also adopts a number of these brands as the appeal for these brands and their pasts seems to be strong. This phenomenon is described as Generation Y looking backward to go forward (Nurko, 2003). With heritage branding, the younger generation uncovers brands through their opinion leadership such as parents, however, parental influence appears limited to certain product/brand categories. This process is almost always associated with emotions and nostalgia.

Nostalgia can be defined as a combination of emotions, thoughts, and memories that can be related to a brand, and brand consumers' perception of brand heritage could facilitate the emergence of nostalgic feelings relating to one's own or a collective past (Fordet et al. 2018). Jacobsen (2020) and Izard (2013) claim that the emotions that humans experience about the past may soften over time as people dissociate with the aspects that provided discomfort and start to idealize the past by remembering the past as they need and want to remember it about present concerns. In some cases, people idealize the past, as they really might have been too controversial, or painful or the present conditions are untenable (Izard, 2013; Pecot et al.,

2019). Nostalgia and brand heritage ultimately operate at different levels. Ford et al. (2018) claim that nostalgia is an experiential state belonging to the intra-psycho perspective, while brand heritage has its place in the managerial perspective (Ford et al., 2018). Consumers may find that it emphasizes on its brand heritage without feeling nostalgic when seeing a brand for the first time.

Another downside to seeking the past through heritage branding is the failure (or no care) of different social groups to understand the meanings that individuals attach to objects, people, and products of the past. Hartog (2015) assert that a biased representation of the past in the present is often designated by the concept of heritage in multiple disciplines. Pecot and De Barnier (2017) agree with Hartog (2015) and denote that as a result of the important role that the consumer's imagination plays in the reception of the constructed discourses, there is not a homogeneous experience of the representing past. In South African history, this is especially true.

The Nelson Mandela University admits that the Nelson Mandela brand means different things to different people: "To the youth, the young activist Mandela is who appeals to them. To others, the equality and social justice values he stood for meant something to them. The concept of ubuntu and embracing diversity in others are other factors that have made this brand very successful" (Brat, 2018). Burgess, Professor of Marketing at Wits Business School provides a good summary of the emotional connection that South Africa has with the Nelson Mandela brand: "the Nelson Mandela brand is the sum of what we all learned to associate with Madiba's name and image – especially his values and the relatively peaceful transition from apartheid by his application of African culture, dignity, and wisdom" (NMU, 2019). As a result of the emotional connotation that Nelson Mandela (the heritage brand) has with its stakeholders, it is important to establish how much internal stakeholders are aware of, associate with, and are loyal to the Nelson Mandela brand after the rebranding process.

Brand Awareness

The overall perception of the brand is considered by consumer researchers

The ability of a consumer to recall and recognize a brand is referred to as brand awareness (Keller, 1993). The time and risk that consumers spend on searching for products and services to buy are reduced by the information they have through brand awareness. Brand image constitutes a part of brand awareness as it refers to the physical structure formed in the consumer's mind which is a combination of a consumer's feeling about the product itself and associated indirect factors (Dogan, 2014; Foroudi et al. 2020). Brand awareness, for the purpose of this study, refers to the ability of internal stakeholders (staff and students) to recall and recognize the brand after the rebranding took place.

From the literature provided the following hypothesis was constructed:

H₁: The rebranding of NMU had a positive influence on the brand awareness of internal stakeholders.

Brand Associations

The strength of a brand in the customer's memory, which is revealed in the form of meanings that customers ascribe to a brand, is referred to as brand associations (Keller, 1993). According to the CBBE model, a brand response (i.e., what customers feel or think about the brand) is

developed based on different associations with the brand (Keller, 2001). Judgments of different aspects of the brand (e.g. credibility, quality, superiority) are made by customers and as a result, they develop some feelings toward the brand. Knowledge of a brand is stored in a consumer's memory and brand information is recalled from memory by an "activation" process when one association stimulates the recall of another, linked association (Christodoulides & Chernatony, 2010). The higher the brand associations of the product or service, the more it will be remembered by the consumer which leads to brand loyalty towards the brand (Suki & Sasmita, 2015). The focus of this study is on the perceptions of brand heritage by internal stakeholders. For this study, brand associations refer to the ability of the internal stakeholders to ascribe meaning in the recall process to the brand after the rebranding exercise.

From the literature provided the second hypothesis was developed:

H₂: The rebranding of NMU had a positive influence on the brand associations of internal stakeholders.

Brand Loyalty

Brand loyalty is defined as the attachment that a customer has to a brand (Aaker, 1991). Brand loyalty can therefore be seen as a consumer's positive feelings toward a brand that leads to a deeply held commitment to repeatedly purchase the preferred product/service consistently in the future, regardless of changes in the environment, the competitors' actions, and other situational influences. Perceived by consumers as stable reference points, brands with heritage usually generate a sense of stability and security in changing uncertain environments (Balmer, 2011), and foster collective and individual engagement with the brand (Halwani, 2021). The origin of heritage brands is part of consumer and group identity-making. The encumbrance with the heritage brands enhances consumer preference and loyalty as it helps to shape customer identification with those brands. The results of the study by Rose et al (2016) indicated the positive effects of a brand's heritage on consumers' commitment, trust, and loyalty toward the brand. For this study, brand loyalty refers to the tendency of internal stakeholders to stay loyal to the brand after the rebranding exercise. From the literature provided the third hypothesis was developed:

H₃: The rebranding of NMU had a positive influence on the brand loyalty of internal stakeholders.

Research Methodology

A positivistic paradigm underpinned this study. As the researcher wanted to establish internal stakeholders' perceptions regarding brand awareness, brand associations, and brand loyalty after the rebranding process, a quantitative and descriptive research design was implemented. The data collection method utilized in this study was a computer-aided self-administered web-based survey, posted on the Nelson Mandela University portal. The questionnaire included ordinal and nominal scaled questions to ascertain the degree to which respondents agreed or disagreed with a series of statements. Five-point Likert-scale questions and nominal scales were utilized.

The questionnaire consisted of four sections. Section A comprised of the demographic details of the respondents. Section B consisted of items regarding brand awareness, section C covered brand associations, and section D brand loyalty. The questionnaire consisted of reliable and valid items sourced from previously tested measuring instruments.

Sampling Procedures

The population of this study included all the internal stakeholders (staff and students) of NMU. Estimating the number of students at the university to be 27000 (June 2019) then based on a 5% margin of error, a sample size of 325 students was deemed to be sufficient. Similarly, estimating the number of staff to be 2500 (June 2019), then based on a 5% margin of error, a sample size of 300 staff members was deemed to be sufficient (personal communication, Kirstie Eastwood, Stats Consultant NMU). This study employed convenience sampling as all the names of the staff and students were available on the NMU email list. The cover letter which included a link to the web-based survey was sent to staff and students via email.

Data Analysis Techniques

The primary data obtained from the questionnaire was edited, coded, and captured on an Excel spreadsheet, which was analyzed using STATISTICA version 25. The data was analyzed and interpreted by making use of descriptive and inferential statistics. The internal reliability of the factors was assessed through the calculation of Cronbach's Alpha coefficients and the inter-item relatedness of the variables of the study. ANOVA was conducted to compare the mean factor scores of the staff and student groups, to establish whether there are significant differences in the responses between the different groups. A regression analysis was conducted to ascertain the relationship between the variables of the study. Post hoc tests (Tukey HSD test) were performed to identify significant differences between groups as ANOVA only indicates whether or not there are significant differences. Tukey tests were conducted between the factors of the variables to determine which group has a statistically significant difference on $p=0.0$; $p<0.05$ and $p<0.10$.

Results and Discussion

Demographic Information of The Respondents

A total of 567 respondents took part in the study. Female respondents accounted for 51% and males 49% of respondents. The majority of the respondents (55%) were in the age group of 17-25 years old, 17% were between the ages of 26-35 years old, 9% were between the ages of 36-45, and 9% were older than 46 years. The support staff category contained the majority of the respondents (49%), whilst academic and administrative staff amounted to 15%, students 25%, and staff that were students as well 11% of the respondents. The majority of the respondents studied a degree (39%) followed by 27% in the diploma programs, 7% doing their honors degrees, 8% doing their Master's degrees, and 4% studying toward their Ph.D. degrees. Of the respondents, 3% were doing their Higher Certificate.

Descriptive Statistics of Brand Awareness

Respondents were more positive regarding brand awareness than brand associations with the mean of the questions ranging between 2.87 to 4.22 and the standard deviation for this section ranged between 1.04 and 1.48 indicating some differences in the opinions of respondents. Respondents were less positive about brand associations than brand awareness with the mean of the questions ranging between 2.44 and 3.80 while the standard deviation for this section ranged between 1.26 and 1.38 indicating no major differences in the opinions of respondents. In total, respondents were still very brand loyal with the mean of the questions ranging between

3.45 and 4.37, and a standard deviation range of 1.10 and 1.26 indicating no major differences between respondents.

Advanced Statistics

Exploratory Factor Analysis (EFA) was conducted to summarise the data of the variables into smaller factors or subsets. Principal Axes Factor and orthogonal Varimax rotation were used during the factor analysis process. The data was sufficient for EFA as all KMO values were well above 0.7. To identify which factors accounted for the largest portion of the total variables of the study, Eigenvalues-greater-than-one proposed by Kaiser (1960) were utilized.

Using the eigenvalue cut-off of 1.0, one factor explained a cumulative variance of 30.30% of brand awareness; one factor explained 67.09% of the cumulative variance of brand association and one factor explained 56.38% of brand loyalty. Brand awareness consisted of eight items, brand associations consisted of eight items, and brand loyalty was six items. The respective Cronbach Alpha values were 0.76, 0.94, and 0.88.

To ascertain whether the data sets fulfill the homogeneity of variance assumption, Levene's test for equality was conducted before the researcher performed an Analysis of Variance (ANOVA). The null hypothesis formed in the Levene's test is that the groups that the researcher is comparing, have equal variances.

The results for Levene's test indicate that the variances for gender with regards to Brand Associations were not equal, $F(0.043)$, $t = 2.82$, $p = 0.005$ but statistically significant. The results indicate that males ($m = 3.13$, $sd = 1.06$) had more favorable brand associations with the NMU brand than females ($m = 2.88$, $sd = 1.06$). The null hypothesis is thus rejected.

To determine whether there were any significant differences in the average factor scores for Brand Awareness, Brand Association, and Brand Loyalty according to various demographic data, One-way ANOVAs were performed. Statistically significant differences were only observed for Brand Associations in all the demographic data examined. Where overall differences were observed, the difference was further investigated to determine between which groups the differences lie.

Within the results of the ANOVA and various positions in NMU, an overall difference was observed ($F = 3.41$, $df = 6$, $Sig. = 0.00$). The largest discrepancies in the results were observed between academic staff ($m=2.84$, $sd=0.85$), admin staff ($m=2.59$, $sd=1.07$), and students ($m=3.89$, $sd=1.09$). These results indicate that staff in general had more negative brand associations compared with students.

Multiple linear regression was calculated to predict EFA_Factor 2 (brand loyalty) based on EFA_Factor 1 (brand associations) and EFA_Factor 3 (brand awareness).

Insert Tables 1, 2, And 3 Here

A significant regression equation was found; ($F(2,564) = 134.108$, $P<0.000$), with an R^2 of 0.332. The results indicate that for every 1 unit increase in EF1 (brand associations), EF2 (brand loyalty) increases by 0.408 and a 1 unit increase in EF3 (brand awareness) leads to an increase in 0.086 increase in EF2 (brand loyalty). Both brand associations and brand awareness were

significant predictors of brand loyalty. In light of the results of the study H₁, H₂, and H₃ were accepted.

Discussions and Recommendations

The results regarding brand awareness indicated that the majority of respondents confirmed that they recognized and were familiar with the new brand as certain characteristics of the new brand came to mind quickly. The new brand has however not reached top-of-mind awareness as respondents indicated that when they think of tertiary institutions, the new NMU brand doesn't come to mind first.

The majority of respondents agreed that their values resonate with that of the university. Having said that, the reason for the rebranding exercise was not understood by all respondents and they were divided on whether the rebranding affected the image of the organization amongst staff and students. Respondents affirmed that it would be advantageous to say that they worked and studied at the NMU, affirming literature that graduates perceive a sense of identification in the name of an HEI as the HEI brand bestows a certain level of social status on them.

The results with regards to brand associations indicated that respondents were attracted to and had affection for the new brand and confirmed the literature that brand heritage is an important driver for customers' perceived value of a product/service brand and that it has a positive impact on cognitive, affective, and intentional consumer responses and that heritage brands create an emotional bond between the product and the consumer.

The majority of staff and students felt that the new brand increased the respectability of both staff and students. The new logo however did not provide respondents with joy and does not necessarily express their personalities. The new brand is also seen as unique and evokes trust from the respondents. These results, confirm that a brand response (what customers feel or think about the brand) is based on different associations and judgments of different aspects of the brand (e.g. quality, credibility, superiority). Internal stakeholders confirmed that they resonated more with the new name and brand, that they would be satisfied with the services of NMU, were loyal and committed to the new brand, and would recommend the university brand to others.

The results of the regression analysis indicate that brand associations have a much greater influence on the overall loyalty of internal stakeholders than brand awareness. These results provide the basis for the practical recommendations to the organization.

Practical Recommendations

- A series of brand-related content could be constructed by the Corporate Relations and Communications Department of NMU. The marketing team of NMU could provide content relating to the rebranding of the university as well as a thorough explanation of how the mission, vision, and values of the university have changed. Staff and students should also be encouraged to become active brand ambassadors for NMU to ensure a strong brand association.
- The marketing team could prepare short presentations to be placed on the website to create more brand awareness, for example, provide photos where the NMU logo is displayed inside

and outside the campus. The new brand is a complex situation, as the university did not change any aspects of the brand identity except the visual brand identity elements. A strategy should be put together on how to create additional brand awareness with current and prospective staff and students.

Limitations and Future Research

This study only focussed on one university within South Africa where heritage branding was incorporated as part of a rebranding strategy. No other similar studies could be found within the higher education sector. The results, should, therefore, not be used to generalize across all other institutions in the HEI sector that incorporate heritage branding as a rebranding strategy. Heritage branding has its unique characteristics, and “the living history” that constitutes part of the brand provides organizations an opportunity to link nostalgia, positive emotions, feelings, and lessons from the past with the culture of the organization. It would, however, seem that when this “blueprint of a certain portion of history” is imposed on an already established organization with its own established culture and history, stakeholders can have conflicting emotions and feelings of what they are expected to be, feel, understand and present to the outside world. As a result, this study unveils various questions and interesting areas for future research.

Firstly, the question should be asked whether the success of heritage branding is exclusive to certain product and service categories as not enough research has been conducted on heritage strategies in the context of different stakeholder groups, strategic purposes, as well as product category and industry context. Secondly, more research is required to understand whether basic terminology and assumptions of heritage branding literature can be juxtaposed with HEIs. A third area that needs more investigation is the influence of heritage branding on organizations that rebrand. These investigations could assist in broadening the understanding of scholars on the use and application of heritage branding in various sectors as well as broadening the understanding of the influence of heritage branding on already established brands. Finally, more research and theoretical insight are needed on branding and rebranding of HEIs in an African context.

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Tables:

Regression – Dependent variable (EFA_Factor 2 Brand Loyalty)

Table 1 Model Summary

| Model Summaryb | | | | | |
|---|-------|----------|-------------------|----------------------------|---------------|
| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Durbin-Watson |
| 1 | .568a | 0.322 | 0.32 | 0.6943 | 2.072 |
| a Predictors: (Constant), EFA_Factor3, EF | | | 6 | | |
| b Dependent Variable: EFA_Factor2 | | | | | |

Table 2 ANOVA

| ANOVAa | | | | | | |
|--|------------|----------------|-----|-------------|---------|-------|
| Model | | Sum of Squares | df | Mean Square | F | Sig. |
| 1 | Regression | 129.294 | 2 | 64.647 | 134.108 | .000b |
| | Residual | 271.877 | 564 | 0.482 | | |
| | Total | 401.17 | 566 | | | |
| a Dependent Variable: EFA_Factor2 | | | | | | |
| b Predictors: (Constant), EFA_Factor3, EFA_Factor1 | | | | | | |

Table 3 Coefficientsa

| Coefficientsa | | | | | | | | |
|-----------------------------------|-------------|-----------------------------|------------|--------------------|--------|-------|-------------------------|-------|
| Model | | Unstandardized Coefficients | | Standardized Coeff | t | Sig. | Collinearity Statistics | |
| | | B | Std. Error | Beta | | | Tolerance | VIF |
| 1 | (Constant) | 2.325 | 0.126 | | 18.466 | 0 | | |
| | EFA_Factor1 | 0.408 | 0.032 | 0.512 | 12.588 | 0 | 0.726 | 1.377 |
| | EFA_Factor3 | 0.086 | 0.037 | 0.095 | 2.344 | 0.019 | 0.726 | 1.377 |
| a Dependent Variable: EFA_Factor2 | | | | | | | | |

PEMBANGUNAN APLIKASI JAWLAH TIKTOK BAGI MENINGKATKAN PENGUASAAN SEBUTAN HURUF ARAB DALAM KALANGAN MURID SEKOLAH RENDAH

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Abstrak: *Jawlah Tiktok adalah satu aplikasi yang dibangunkan sebagai bahan bantu mengajar dalam aktiviti pembelajaran dan pemudahcaraan bahasa Arab untuk murid bukan penutur. Aplikasi Jawlah Tiktok ini dibangunkan dengan menerapkan konsep didik hibur bagi membantu murid menguasai sebutan huruf mutamathilah dalam bahasa Arab. Terdapat empat huruf mutamathilah dalam aplikasi ini iaitu huruf ta', kaf, to' dan qaf (ت ك ط ق) dan aplikasi ini dinamakan dengan huruf-huruf ini. Data menunjukkan murid berhadapan dengan masalah untuk menguasai sebutan huruf-huruf mutamathilah dengan baik kerana huruf-huruf ini mempunyai daerah artikulasi suara dan sifat huruf yang sama. Oleh itu, kajian ini dibangunkan sebagai medium alternatif yang berkesan dalam aktiviti pengajaran huruf-huruf mutamathilah. Aplikasi Jawlah Tiktok ini adalah kajian berbentuk pembangunan instruksional dengan mengadaptasi Model Instruksional ADDIE. Instrumen soal selidik digunakan pada fasa analisis keperluan dengan melibatkan guru-guru bahasa Arab sekolah rendah di Wilayah Persekutuan. Kaedah pensampelan bertujuan digunakan pada fasa analisis keperluan dengan melibatkan seramai 100 orang guru. Data dari instrumen soal selidik dan sorotan literatur digunakan pada fasa pembangunan dan rekabentuk. Selain itu, bagi memastikan aplikasi yang dibangunkan dapat menarik minat dan motivasi murid serta menjadikan suasana kelas lebih kondusif dan interaktif, model Technological Pedagogical Content Knowledge (TPACK) turut digunakan. Fasa pelaksanaan melibatkan kumpulan rintis murid yang dipilih manakala fasa penilaian kebolegunaan melibatkan kumpulan pakar dalam bidang. Aplikasi Jawlah Tiktok yang dibangunkan ini menunjukkan peningkatan penguasaan murid terhadap sebutan huruf-huruf mutamathilah bahasa Arab dan turut meningkatkan motivasi serta minat murid dalam aktiviti pengajaran dan pembelajaran bahasa Arab.*

Keywords: *Jawlah Tiktok, Gamifikasi, Huruf Mutamathilah, Bahasa Arab*

Pengenalan

Bahasa Arab telah menjadi bahasa tambahan di kebanyakan sekolah dan telah didedahkan secara berperingkat di sekolah rendah melalui program j-QAF bermula pada tahun 2005. Kurikulum Standard Sekolah Rendah (KSSR) bahasa Arab digubal bertujuan untuk menggalakkan pembelajaran bahasa tambahan selain bahasa Inggeris seperti yang dihasratkan dalam Pelan Pembangunan Pendidikan Malaysia (PPPM) (2013-2025). Kurikulum ini

memberi tumpuan kepada penguasaan asas bahasa Arab iaitu kemahiran mendengar, bertutur, membaca dan menulis (Bahagian Pembangunan Kurikulum, 2019).

Dalam aktiviti pembelajaran dan pemudahcaraan (PdPc) di sekolah, murid dan guru dibekalkan dengan buku teks dan Dokumen Standard Kurikulum dan Pentaksiran (DSKP) sebagai rujukan dan panduan. Namun ianya tidak mencukupi apabila masih terdapat isu-isu yang timbul dalam penguasaan sebutan huruf murid. Murid keliru dengan sebutan huruf mutamathilah kerana huruf-huruf ini mempunyai daerah artikulasi suara dan sifat huruf yang sama. Hal ini mendorong kepada penguasaan sebutan murid yang sederhana dan tidak memberangsangkan serta murid menghadapi masalah dalam menguasai huruf-huruf ini dengan baik. Perkara ini perlu kepada penyelesaian yang komprehensif agar matlamat KSSR bahasa Arab dapat dicapai sesuai dengan hasrat Kementerian Pendidikan Malaysia. Menurut Nik Mohd Rahimi et al., (2010) pada peringkat permulaan pembelajaran bahasa Arab, penguasaan sebutan huruf konsonan Arab perlu ditekankan kerana tanpa penguasaan yang baik, akan membawa kepada kesalahan sebutan yang menyebabkan perubahan makna perkataan. Dalam kajian Nazratul Aini Ramli, (2021) faktor kesukaran pelajar mengenal pasti huruf Arab ialah kerana mereka keliru dengan sebutan huruf yang hampir sama.

Sehingga kini, kaedah pembelajaran konvensional masih digunakan secara meluas di peringkat sekolah rendah, sedangkan pembelajaran yang berasaskan dan berbantuan teknologi seperti m-pembelajaran masih sedikit diterapkan. Bahan bantu mengajar yang berasaskan teknologi dan yang dihasilkan dengan berpandukan DSKP serta buku teks masih kurang penghasilannya. Pada hakikatnya, murid dan guru memerlukan bahan alternatif selain bahan bantu mengajar yang sedia ada, sejajar dengan perkembangan dan kemajuan teknologi serta transformasi dalam pendidikan yang telah mengubah dunia ke arah pendidikan digital. Kekurangan sumber atau bahan bantu yang sesuai serta spesifik dan interaktif akan menjadikan murid kurang motivasi untuk belajar dan menguasai bahasa ketiga ini. Hal ini akan menyebabkan penguasaan murid dalam bahasa Arab akan merosot.

Justeru itu, bagi mengatasi masalah kekeliruan sebutan yang dihadapi oleh murid, kajian ini akan membangunkan satu aplikasi yang dinamakan Jawlah Tiktok dengan menerapkan konsep didik hiburan bagi membantu murid menguasai sebutan huruf yang hampir sama bunyi yang menyebabkan kekeliruan kepada murid. Terdapat empat huruf mutamathilah dalam aplikasi ini iaitu huruf ta', kaf, to' dan qaf (ت ك ط ق) dan aplikasi ini dinamakan dengan huruf-huruf ini.

Pembangunan aplikasi berasaskan permainan ini perlu didedahkan di peringkat sekolah rendah kerana telah banyak kajian yang membuktikan bahawa penggunaan bahan bantu yang sesuai, mempunyai kelebihan dalam menyelesaikan isu pembelajaran dalam aktiviti PdPc bahasa Arab. Malah kaedah dan pendekatan ini telah terbukti berupaya meningkatkan minat, tumpuan dan pemahaman murid dalam aktiviti PdPc, serta dalam masa yang sama dapat membantu guru dalam menyediakan bahan bantu mengajar.

Penyataan Masalah

Menurut Zarima Mohd Zakaria et al., (2016) fenomena pengajaran dan pembelajaran bahasa Arab di Malaysia menunjukkan masalah penguasaan sebutan pelajar berlaku dalam pelbagai peringkat pendidikan. Pelbagai usaha telah dilakukan di semua peringkat bagi memastikan murid dapat menguasai empat kemahiran asas bahasa Arab dengan baik terutamanya aspek

sebutan dalam kemahiran bertutur. Walau bagaimanapun, data menunjukkan murid berhadapan dengan masalah untuk menguasai sebutan huruf-huruf mutamathilah dengan baik kerana huruf-huruf ini mempunyai daerah artikulasi suara dan sifat huruf yang sama. Setiap huruf bahasa Arab mempunyai makhraj yang tersendiri. Tujuan belajar makhraj ialah untuk membezakan sebutan huruf. Kedudukan makhraj perlu dikenal pasti agar sesuatu huruf disebut dengan tepat kerana terdapat huruf-huruf yang mempunyai bunyi yang hampir sama tetapi terhasil daripada makhraj yang berbeza. Makhraj huruf adalah daerah artikulasi iaitu tempat terbentuknya sebutan sesuatu huruf pada organ pertuturan dan berlaku apabila pertemuan di antara dua organ pertuturan semasa udara melintas (Abdul Qader Leong, 2001).

Menurut Ahmad Zulfadhli Nokman et al., (2017) aspek yang penting dalam kemahiran pertuturan ialah sebutan perkataan bagi sesuatu bahasa. Kesilapan sebutan boleh membawa kepada perubahan makna perkataan tersebut. Dalam kajian Nazratul Aini Ramli (2021), antara faktor kesukaran pelajar Melayu dalam mengenal pasti bunyi huruf Arab adalah mereka keliru dengan sebutan yang hampir sama dan juga disebabkan oleh pengaruh bahasa pertama. Selain itu menurutnya lagi, pelajar kurang terdedah dengan huruf Arab, kurang memahami makhraj dan tidak berminat dengan bahasa Arab. Hal ini memerlukan intervensi dan penyelesaian kerana jika dibiarkan akan menimbulkan masalah dalam penguasaan al-quran. Contohnya orang Melayu sukar untuk membezakan sebutan qof dan kaf. Dalam bahasa Arab, “qul” dan “kul” membawa dua maksud yang berbeza.

Penguasaan bahasa asing bukanlah sesuatu yang mudah untuk murid sekolah rendah yang bukan penutur. Ianya bergantung kepada beberapa aspek dan faktor seperti guru, bahan bantu dan motivasi murid itu sendiri. Aktiviti pembelajaran dan pemudahcaraan bahasa Arab masih menggunakan pendekatan tradisional serta kebanyakannya masih berpusatkan guru. Menurut Saipolbarin Ramli et al., (2017) untuk mewujudkan sesi pembelajaran yang mempunyai ciri-ciri abad ke 21, pelbagai aspek perlu di olah semula termasuklah penggunaan bahan bantu mengajar yang bersesuaian. Kajian oleh Maimun Aqsha Lubis et al., (2017), menyatakan bahan bantu yang mampu membantu meringankan tugas guru di samping menarik minat murid adalah bahan bantu mengajar yang berasaskan multimedia.

Oleh itu, kajian ini akan membangunkan satu aplikasi sebagai medium alternatif yang berkesan dalam aktiviti pengajaran huruf-huruf mutamathilah yang mana masih kurang penghasilannya untuk membantu penguasaan sebutan murid pada peringkat asas di sekolah rendah. Aplikasi ini dibangunkan dengan menerapkan konsep didik hibur bagi memastikan murid dapat mempelajari bahasa Arab dan menguasai sebutan dalam keadaan seronok dan interaktif. Pengkaji berpendapat aplikasi ini perlu dibangunkan agar penguasaan sebutan huruf mutamathilah dapat ditingkatkan penguasaannya dalam kalangan murid sekolah rendah dan juga pendekatan pengajaran secara bermain ini sesuai dengan tuntutan pendidikan abad ke-21 yang berpusatkan kepada murid. Aplikasi ini akan dapat menarik minat murid untuk belajar dan menguasai sebutan huruf mutamathilah bahasa Arab dengan baik serta dapat menimbulkan suasana PdPc yang seronok serta interaktif. Dalam masa yang sama juga, aplikasi ini akan membantu guru-guru bahasa Arab untuk menyampaikan pengajaran dengan lebih berkesan dan menarik.

Objektif Kajian

- 1) Mengenalpasti keperluan pembangunan aplikasi Jawlah Tiktok dalam kalangan guru untuk kegunaan dalam aktiviti pembelajaran dan pemudahcaraan huruf mutamathilah bahasa Arab dalam kalangan murid sekolah rendah.
- 2) Membangunkan aplikasi Jawlah Tiktok untuk kegunaan dalam aktiviti pembelajaran dan pemudahcaraan huruf mutamathilah bahasa Arab dalam kalangan murid sekolah rendah.
- 3) Mengenal pasti kebolegunaan aplikasi Jawlah Tiktok dalam meningkatkan sebutan huruf mutamathilah bahasa Arab dalam kalangan murid sekolah rendah.

Persoalan Kajian

- 1) Apakah keperluan pembangunan aplikasi Jawlah Tiktok dalam kalangan guru untuk kegunaan pembelajaran dan pemudahcaraan huruf mutamathilah bahasa Arab dalam kalangan murid sekolah rendah?
- 2) Bagaimanakah membangunkan aplikasi Jawlah Tiktok untuk kegunaan pembelajaran dan pemudahcaraan huruf mutamathilah bahasa Arab dalam kalangan murid sekolah rendah?
- 3) Sejauhmanakah kebolegunaan aplikasi Jawlah Tiktok dalam meningkatkan sebutan huruf mutamathilah bahasa Arab dalam kalangan murid sekolah rendah?

Metodologi

Kajian ini berbentuk pembangunan instruksional dengan mengadaptasi Model Instruksional ADDIE. Model ini terdiri dari lima fasa iaitu fasa analisis, fasa reka bentuk, fasa pembangunan, fasa pelaksanaan dan fasa penilaian.

Fasa Analisis Keperluan

Analisis keperluan merupakan fasa pertama dalam proses pembangunan dan reka bentuk pengajaran. Fasa ini penting kerana dijalankan bagi memastikan reka bentuk pembangunan produk menepati ciri-ciri dan memenuhi keperluan pengguna. Menurut kajian Ummu Nasibah Nasohah et al., (2015) fasa analisis keperluan merupakan asas untuk fasa seterusnya dalam reka bentuk sesuatu pengajaran. Tujuan utama analisis keperluan dijalankan adalah untuk memastikan reka bentuk pengajaran yang akan dihasilkan menepati dan memenuhi keperluan guru yang sebenar. Pada fasa ini pengkaji menjalankan kajian bagi mengenal pasti keperluan dan spesifikasi serta kandungan bahan bantu yang akan dibangunkan. Beberapa persoalan perlu dijawab iaitu; apakah keperluan guru bahasa Arab bagi menangani masalah kekeliruan sebutan dalam kalangan murid? Apa keperluan guru bagi meningkatkan penguasaan dan motivasi murid dalam PdPc bahasa Arab?

Pada fasa ini, pengkaji menjalankan analisis keperluan dengan menggunakan instrumen soal selidik yang melibatkan guru-guru bahasa Arab sekolah rendah di Wilayah Persekutuan. Sampel kajian seramai 100 orang guru bahasa Arab telah dipilih menggunakan kaedah pensampelan bertujuan. Menurut Mohamad Najib Abdul Ghafar, (1999) pensampelan bertujuan digunakan untuk mendapat jumlah sampel yang mewakili populasi. Ianya bertujuan memudahkan proses pengumpulan maklumat dari sekumpulan sampel yang khusus dan spesifik serta bertepatan dengan objektif kajian. Dalam kajian Siti Ramli & Mohd Tajudin (2021), pemilihan responden dalam kajian ini juga adalah secara pensampelan bertujuan, bagi memberi tumpuan terhadap ciri-ciri tertentu yang sesuai dengan fokus kajian.

Data yang dikutip dari soal selidik, di analisis menggunakan perisian SPSS versi 25 menggunakan statistik deskriptif iaitu frekuensi dan peratus. Soal selidik ini di adaptasi dari kajian Mohammad Taufiq Abdul Ghani (2021). Kesahan soal selidik dilakukan oleh pakar kandungan dalam bidang bahasa Arab dan juga pakar teknologi instruksional. Soal selidik ini mempunyai empat bahagian. Bahagian pertama merupakan konstruk maklumat demografi bagi mengenalpasti latar belakang guru-guru bahasa Arab sekolah rendah. Bahagian B merupakan konstruk kedua, iaitu penguasaan kandungan yang bertujuan untuk mengenal pasti tahap pengetahuan pedagogi dan kandungan guru-guru bahasa Arab. Bahagian C soal selidik merupakan konstruk keperluan pembangunan bahan bantu mengajar digital, untuk mengenal pasti keperluan pembangunan bahan bantu mengajar digital dalam PdPc sebutan bahasa Arab. Bahagian D pula ialah konstruk penggunaan teknologi multimedia dalam pembangunan bahan bantu mengajar. Konstruk ini bertujuan untuk mengenalpasti keperluan mengintegrasikan teknologi dalam pembangunan bahan bantu mengajar. Pada akhir bahagian soal selidik ini disediakan ruangan cadangan iaitu: a) cadangan tambahan aspek pembangunan bahan bantu mengajar berbantuan teknologi dan multimedia; b) cadangan bahan bantu mengajar untuk meningkatkan penguasaan sebutan huruf dan kemahiran bertutur bahasa Arab peringkat asas.

Fasa Rekabentuk dan Pembangunan

Pada fasa ini, proses reka bentuk dan pembangunan aplikasi berlaku. Data dari sorotan literatur dan dapatan soal selidik digunakan pada fasa ini. Pengkaji merujuk kajian lepas serta menganalisis kandungan Dokumen Standard Kurikulum dan Pentaksiran (DSKP) serta buku teks bahasa Arab tahun 5 KSSR semakan 2017 untuk mereka bentuk kandungan aplikasi Jawlah Tiktok.

Pengkaji menggunakan Microsoft Power Point untuk melakar papan cerita dan akan menggabungkan teori PCK, Konstruktivime dan teori interaksional dalam teori pemerolehan bahasa. Bagi menjadikan aplikasi yang dibangunkan ini selari dengan keperluan semasa, elemen teknologi, elemen didik hibur dan elemen multimedia akan diintegrasikan seperti teks, grafik, animasi, audio dan video.

Pada fasa ini juga, dari semasa ke semasa pengkaji sentiasa membuat perbincangan dan merujuk kepada guru bahasa Arab yang berpengalaman yang terdiri daripada penggubal DSKP, juru latih utama serta pengkaji juga membuat semakan secara berterusan bersama penyelia. Semasa proses pembangunan pengkaji telah menggunakan perisian *Construct 3* bagi membangunkan kandungan aplikasi Jawlah Tiktok. Disamping itu juga, pengkaji merujuk papan cerita yang telah dilakarkan pada fasa reka bentuk.

Setelah proses mereka bentuk dan membangunkan aplikasi selesai, kesahan pakar perlu dijalankan bagi memastikan kandungan aplikasi bersesuaian dengan objektif kajian. Soal selidik telah di edarkan kepada pakar kandungan dan pakar teknologi instruksional dari Institut Pengajian Tinggi Awam (IPTA) dan Institut Pendidikan Guru (IPG) serta pakar bidang *Information and Communications Technology* (ICT) dalam kalangan guru pakar ICT sekolah rendah. Pakar terdiri juga dari penggubal DSKP bahasa Arab dan pakar dalam bidang inovasi. Instrumen soal selidik kesahan kandungan ini di adaptasi dari Nor Tutiaini Bt Ab. Wahid (2019).

Selain itu, bagi memastikan aplikasi yang dibangunkan dapat menarik minat dan motivasi murid serta menjadikan suasana kelas lebih kondusif dan interaktif, model Technological

Pedagogical Content Knowledge (TPACK) turut digunakan. TPACK merupakan kemahiran yang perlu dipelajari dan dikuasai oleh guru-guru yang menggunakan teknologi di dalam pengajaran mereka. Menurut Matthew J et al., (2008) guru-guru yang mampu mengendalikan teknologi adalah guru yang kreatif, fleksibel dan dapat menyesuaikan diri dalam pelbagai cara di mana mereka mampu mengatasi kekangan dan terus berinteraksi dalam rangka kerja TPACK. TPACK adalah satu rangka kerja tentang bagaimana untuk memahami dan menghuraikan jenis pengetahuan yang diperlukan oleh seorang guru untuk amalan pedagogi yang berkesan di dalam persekitaran pembelajaran yang mengimplementasikan penggunaan teknologi (Saifolrudin Khalid Mahzan & Mohamad Khairi Hj Othman, 2019).

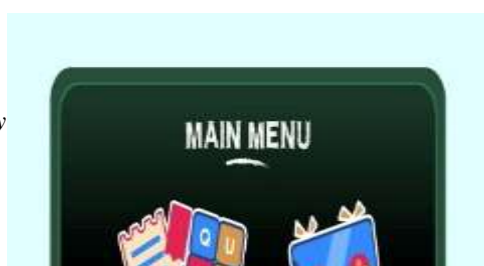
Fasa Pelaksanaan dan Penilaian Kebolehgunaan

Pada fasa pelaksanaan, kajian ini melibatkan kumpulan rintis murid yang dipilih. Aplikasi Jawlah Tiktok digunakan di dalam bilik darjah semasa aktiviti PdPc untuk di uji kebolehgunaan. Pelaksanaan yang dijalankan merangkumi kebolehgunaan aplikasi Jawlah Tiktok, keselarian dengan sukatan pembelajaran serta kesesuaian dengan aras murid, objektif, aktiviti dan kaedah penyampaian. Instrumen senarai pemerhatian digunakan dalam fasa ini. Dapatan fasa pelaksanaan-pelaksanaan kajian rintis Jawlah Tiktok di sebuah sekolah pilihan yang mempunyai kelebihan menggunakan teknologi, telah menarik minat murid dan memotivasikan murid untuk belajar bahasa Arab dalam suasana didik hibur dan interaktif. Pada masa yang sama juga, aplikasi ini menjadi medium alternatif untuk membantu guru mempelbagaikan bahan dalam aktiviti PdPc.

Fasa penilaian kebolehgunaan melibatkan kumpulan pakar dalam bidang. Pada fasa ini 7 orang guru bahasa Arab yang berpengalaman telah di pilih untuk menilai kebolehgunaan aplikasi Jawlah Tiktok. Instrumen soal selidik kebolehgunaan digunakan pada fasa ini untuk menilai kebolehgunaan aplikasi Jawlah Tiktok. Instrumen ini telah di adaptasi dari (Lund, 2001).

Aplikasi Jawlah Tiktok

Aplikasi Jawlah Tiktok mempunyai dua versi iaitu versi guru dan versi murid. Isi kandungan aplikasi ini merujuk sepenuhnya kepada Dokumen Standard Kurikulum dan Pentaksiran (DSKP) dan buku teks bahasa Arab tahun 5 KSSR semakan 2017. Versi guru dibuka akses untuk menu *game* bagi membolehkan guru mengakses setiap level permainan tersebut manakala versi murid dikunci akses kepada permainan. Murid perlu menghabiskan bacaan nota dan menjawab soalan kuiz bagi membolehkan mereka mengakses permainan dan mengembara dalam aplikasi ini. Dalam pengembaraan ini, murid akan mencari dan mengenal pasti 4 huruf mutamathilah iaitu huruf ta', kaf, to' dan qaf (ت ك ط ق).



**Rajah 1 (a): Antaramuka Aplikasi
Jawlah Tiktok Versi Guru**

**Rajah 1 (b): Antaramuka Aplikasi
Jawlah Tiktok Versi Murid**

Dalam aplikasi Jawlah Tiktok ini juga murid boleh memilih karakter dan perlu menghabiskan level 1 dahulu sebelum meneruskan permainan ke level 2 dan level 3. Murid yang gagal pada level 1, akan mengulang level tersebut sehingga berjaya.



Rajah 2: Antaramuka Pemilihan 'Level'



Rajah 3: Antaramuka Pemilihan Karakter

Selain itu, aplikasi Jawlah Tiktok ini juga menggabungkan elemen audio dan gamifikasi yang bertujuan untuk menarik perhatian murid di samping membina suasana didik hibur dalam aktiviti PdPc (pembelajaran dan pemudahcaraan) bahasa Arab. Menurut Saipolbarin Ramli et al., (2019) konsep gamifikasi dalam aktiviti PdPc secara tidak langsung dapat membantu merangsangkan minat pelajar terhadap sesuatu topik. Menurutnya lagi, dari sudut yang lain, terdapat banyak kajian berkaitan gamifikasi bahasa secara maya dalam proses meningkatkan tahap penguasaan pelajar dalam menguasai bahasa kedua.

Bahagian permainan aplikasi ini terbahagi kepada 3 level. Level 1, murid dikehendaki mencari huruf mutamathilah “tiktok”. Level 2 murid diminta untuk mendapatkan perkataan yang mengandungi huruf mutamathilah. Manakala level 3 ialah misi murid untuk mendapatkan perkataan berangkai bagi melengkapkan ayat.



Rajah 4: Contoh Paparan Aplikasi Jawlah Tiktok

Aplikasi Jawlah Tiktok yang dibangunkan ini boleh dicapai oleh guru dan murid secara atas talian dan luar talian. Kaedah ini bertujuan membina sifat sendiri murid dalam mempelajari bahasa Arab bukan sahaja di dalam kelas bersama guru, malah di luar kelas dan juga di rumah. Aplikasi ini secara tidak langsung menjadikan suasana PdPc lebih berpusatkan kepada murid dan bersifat interaktif serta dapat memotivasikan murid untuk belajar dengan lebih seronok.

Dapatan dan Perbincangan Kajian

Fasa Analisis Keperluan

Responden kajian terdiri daripada guru-guru yang mengajar mata pelajaran bahasa Arab di Wilayah Persekutuan Kuala Lumpur dari semua zon. Sentul, Keramat dan Bangsar Pudu. Data yang diperolehi dari soal selidik dianalisis melalui statistik deskriptif dengan menggunakan perisian SPSS versi 25. Dalam kajian ini, pengkaji menggunakan statistik deskriptif kerana data yang dihasilkan merupakan ringkasan daripada keseluruhan set data. Dalam masa yang sama, statistik deskriptif dapat memberikan maklumat secara langsung dan mudah. Statistik yang digunakan ialah kekerapan, peratusan, min dan sisihan piawai. Interpretasi skor min berdasarkan Nunnally Bernstein (1994) adalah seperti berikut: skor min 1.00-2.00 berada di tahap rendah, skor min antara 2.01-3.00 berada di tahap sederhana rendah, skor min antara 3.01-4.00 berada di tahap sederhana tinggi dan skor min 4.01-5.00 berada di tahap tinggi.

Bahagian A soal selidik bertujuan untuk mengenal pasti demografi atau latar belakang responden kajian.

Jadual 1 Data Demografi Responden

| No | Kategori | | Kekerapan | Peratus |
|----|---------------------------------------|---------------------|-----------|---------|
| 1 | Jantina Responden | Lelaki | 39 | 37.1 |
| | | Perempuan | 66 | 62.9 |
| | | Jumlah | 105 | 100.0 |
| 2 | Bilangan tahun mengajar BA di SK | 1-6 | 11 | 10.5 |
| | | 7-12 | 43 | 41.0 |
| | | 13-18 | 39 | 37.1 |
| | | 19-24 | 9 | 8.6 |
| | | <25 | 3 | 2.9 |
| | | Jumlah | 105 | 100.0 |
| 3 | Kelulusan tertinggi dalam bahasa Arab | Diploma | 11 | 10.5 |
| | | Ijazah Sarjana muda | 89 | 84.8 |
| | | ijazah sarjana | 5 | 4.8 |
| | | Jumlah | 105 | 100.0 |
| 4 | Ikhtisas perguruan | ya | 105 | 100.0 |
| 5 | bidang pengkhususan pengajian | tidak | 12 | 11.4 |
| | | ya | 93 | 88.6 |
| | | Jumlah | 105 | 100.0 |

Bahagian B pula mengandungi tiga bahagian yang bertujuan mengenal pasti tahap penguasaan kandungan, pedagogi dan pentaksiran guru-guru bahasa Arab.

Jadual 2: Pengetahuan Kandungan (CK) Guru

| No. | Item | Sisihan Piawai | Skor Min | Interpretasi |
|-----|--|----------------|----------|--------------|
| 1. | Saya menggunakan kandungan berkaitan yang mencukupi dalam pengajaran bahasa Arab. | 0.544 | 4.38 | Tinggi |
| 2. | Saya mempraktikkan teori pengajaran dalam aktiviti PdPc bahasa Arab. | 0.513 | 4.41 | Tinggi |
| 3. | Saya cakna terhadap isu semasa pdpc bahasa Arab. | 0.533 | 4.41 | Tinggi |
| 4. | saya menggunakan pelbagai sumber terkini yang bersesuaian dengan kandungan dalam PdPc bahasa Arab. | 0.551 | 4.42 | Tinggi |

Jadual 3: Pengetahuan Pedagogi (PK) Guru

| No | Item | Sisihan Piawai | Skor Min | Interpretasi |
|----|--|----------------|----------|--------------|
| 5. | Saya boleh menyesuaikan gaya pengajaran saya kepada murid yang mempunyai pelbagai aras pencapaian. | 0.553 | 4.44 | Tinggi |

| | | | | |
|----|---|-------|------|--------|
| 6. | Saya boleh menggunakan pelbagai pendekatan pengajaran dalam bilik darjah. | 0.537 | 4.46 | Tinggi |
| 7. | Saya mengetahui cara untuk memilih pendekatan pengajaran yang berkesan untuk membimbing murid dalam PdPc bahasa Arab. | 0.571 | 4.45 | Tinggi |

Jadual 4: Pengetahuan Pentaksiran (AK) Guru

| No | Item | Sisihan Piawai | Min | Interpretasi |
|-----|---|----------------|------|--------------|
| 8. | Saya boleh membangunkan ujian penilaian untuk subjek bahasa Arab. | 0.547 | 4.40 | Tinggi |
| 9. | Saya mengetahui komponen penilaian subjek Bahasa Arab. | 0.549 | 4.41 | Tinggi |
| 10. | Saya mengetahui kaedah penilaian bagi Subjek bahasa Arab. | 0.555 | 4.46 | Tinggi |
| 11. | Saya boleh menilai pembelajaran murid dalam pelbagai cara. | 0.539 | 4.50 | Tinggi |
| 12. | Saya mampu untuk menilai prestasi murid dalam bilik darjah. | 0.568 | 4.58 | Tinggi |

Bahagian C bertujuan mengenal pasti keperluan membangunkan bahan bantu dalam bentuk digital yang berasaskan didik hibur bagi mewujudkan suasana pembelajaran yang interaktif dan kondusif serta memberikan motivasi dan merangsang pembelajaran bahasa asing kepada murid. Dapatan bahagian C jelas menunjukkan bahawa terdapat keperluan membina bahan alternatif sebagai sokongan kepada murid dan guru dalam aktiviti pembelajaran dan pemudahcaraan bahasa Arab khususnya di peringkat sekolah rendah / bahasa Arab asas. Keperluan pembangunan bahan ini selari dengan zaman teknologi dan pembelajaran abad ke-21 yang berpusatkan murid.

Jadual 5: Keperluan Pembangunan Bahan Bantu Mengajar Digital

| No | Item | Sisihan Piawai | Min | Interpretasi |
|----|--|----------------|------|--------------|
| 1. | Saya memerlukan platform bahan bantu mengajar berasaskan multimedia sebagai alternatif bahan bantu mengajar sedia ada untuk PdPc sebutan dan kemahiran bertutur bahasa Arab. | 0.490 | 4.68 | Tinggi |
| 2. | Saya memerlukan bahan bantu mengajar digital yang menggunakan kaedah didik | 0.517 | 4.70 | Tinggi |

| | | | | |
|----|---|-------|------|--------|
| | hibur yang sesuai supaya dapat merangsang pembelajaran bahasa murid. | | | |
| 3. | Saya memerlukan bahan bantu mengajar digital supaya dapat menjimatkan masa untuk penyediaan bahan bantu mengajar. | 0.475 | 4.75 | Tinggi |
| 4. | Saya memerlukan bahan bantu mengajar digital dalam PdPc bahasa Arab agar dapat mewujudkan suasana pembelajaran yang interaktif. | 0.470 | 4.76 | Tinggi |
| 5. | Saya memerlukan bahan bantu mengajar digital dalam PdPc bahasa Arab supaya dapat merangsang murid bertutur dengan baik. | 0.470 | 4.76 | Tinggi |

Dapatan bahagian D menunjukkan keperluan penggunaan teknologi multimedia sebagai alternatif dalam aktiviti PdPc bahasa Arab selari dengan zaman teknologi. Elemen seperti didik hibur dan interaktiviti diperlukan oleh guru bagi merangsang pembelajaran bahasa murid dan bagi memupuk minat murid, terutama apabila melibatkan pembelajaran bahasa asing pada peringkat asas di peringkat sekolah rendah. Dapatan juga menunjukkan bahan multimedia / digital dapat menjimatkan masa guru dalam penyediaan bahan bantu mengajar. Penggunaan teknologi dapat menjimatkan masa guru disebabkan kekangan dari segi peruntukan masa.

Jadual 6: Penggunaan Teknologi Multimedia Dalam Kit Media

| No | Item | Sisihan Piawai | Min | Interpretasi |
|----|---|----------------|------|--------------|
| 1. | Saya memerlukan elemen multimedia (audio, grafik, visual, video, gambar dan animasi) untuk pembangunan bahan bantu mengajar bagi membantu pengajaran sebutan huruf, perkataan dan ayat mudah bahasa Arab. | 0.470 | 4.76 | Tinggi |
| 2. | Saya memerlukan bahan bantu mengajar yang berasaskan teknologi dalam PdPc bahasa Arab supaya dapat meningkatkan | 0.471 | 4.76 | Tinggi |

| | | | | |
|----|--|-------|------|--------|
| | penguasaan kemahiran bertutur dan mendengar bahasa Arab dalam kalangan murid. | | | |
| 3. | Saya memerlukan bahan bantu mengajar yang berasaskan teknologi dalam PdPc bahasa Arab kerana dapat menarik minat murid untuk belajar. | 0.432 | 4.80 | Tinggi |
| 4. | Saya memerlukan bahan bantu mengajar yang berasaskan teknologi supaya dapat mewujudkan suasana yang interaktif. | 0.444 | 4.78 | Tinggi |
| 5. | Saya memerlukan bahan bantu mengajar yang berasaskan teknologi dalam PdPc bahasa Arab supaya dapat meningkatkan penguasaan kemahiran bahasa murid. | 0.538 | 4.74 | Tinggi |
| 6. | Saya memerlukan elemen animasi dan visual untuk pembangunan bahan bantu mengajar bagi membantu kekeliruan murid untuk menyebut huruf yang hampir sama. | 0.425 | 4.80 | Tinggi |
| 7. | Saya memerlukan elemen audio, animasi dan visual untuk pembangunan bahan bantu mengajar bagi membantu murid menyebut huruf dengan betul | 0.450 | 4.76 | Tinggi |
| 8. | Saya memerlukan elemen visual atau grafik untuk pembangunan bahan bantu mengajar bagi membantu memori murid. | 0.465 | 4.77 | Tinggi |

Jadual 7 **Dapatan Analisis Soal Selidik**

| Konstruk | Min | Sisihan Piawai | Interpretasi |
|------------|--------|----------------|--------------|
| penguasaan | 4.4437 | .41610 | Tinggi |
| keperluan | 4.7314 | .43574 | Tinggi |
| teknologi | 4.7702 | .41679 | Tinggi |

Berdasarkan analisis soal selidik, ia menunjukkan interpretasi yang tinggi untuk membangunkan bahan bantu sebagai medium alternatif untuk murid dan guru. Dapatan kajian ini jelas menunjukkan terdapat keperluan membangunkan bahan bantu mengajar yang berasaskan didik hiburan dan diintegrasikan dengan teknologi. Bahan ini dapat dijadikan bahan alternatif untuk menyokong PdPc bahasa Arab dalam kalangan guru, dan pada masa yang sama dapat meningkatkan penguasaan murid dalam mempelajari bahasa Arab, menukar persepsi

murid “bahasa Arab susah dan banyak melibatkan banyak hafalan”, serta meningkatkan motivasi mereka dalam PdPc kerana bahan ini sesuai dengan peredaran zaman semasa.

Pada akhir bahagian soal selidik ini disediakan ruangan cadangan iaitu: a) cadangan tambahan aspek pembangunan bahan bantu mengajar berbantuan teknologi dan multimedia; b) cadangan bahan bantu mengajar untuk tingkatan penguasaan sebutan huruf dan kemahiran bertutur bahasa Arab peringkat asas; untuk di isi oleh guru. Antara cadangan yang diutarakan ialah: bahan bantu yang berasaskan teknologi dan mempunyai elemen-elemen multimedia seperti grafik yang menarik, audio dan visual, mesra pengguna dan mudah di akses di mana-mana oleh murid, guru dan juga ibu bapa. Mereka juga mencadangkan bahan bantu yang berasaskan permainan sesuai dengan peringkat asas pembelajaran. Kesimpulannya, guru memerlukan bahan bantu yang sesuai sebagai medium alternatif atau bahan sokongan kepada buku teks untuk merangsang murid dalam aktiviti PdPc bahasa Arab sekolah rendah.

Fasa Reka Bentuk Dan Pembangunan

Dapatan dari fasa analisis keperluan telah digunakan untuk mereka bentuk dan membangunkan aplikasi ini. Pengkaji juga melaksanakan sorotan literatur semasa fasa reka bentuk bagi mengenal pasti cadangan-cadangan reka bentuk modul dan aplikasi dari aspek reka bentuk antara muka dan jenis-jenis media interaktif yang akan digunakan pada fasa pembangunan modul/aplikasi.

Setelah proses pembangunan selesai, pengkaji telah menguji kesahan kandungan aplikasi menggunakan 7 org pakar dengan mengedarkan instrumen soal selidik. Pakar terdiri daripada pakar bidang dan kandungan bahasa Arab, pakar teknologi instruksional serta pakar bidang ICT. Aplikasi ini akan ditentukan nilai kesahannya menggunakan formula Percentage Calculation Method (PCM) yang diperkenalkan oleh Tuckman dan Waheed (1981). Formula tersebut adalah seperti berikut:

$$(\text{Jumlah skor daripada pakar}/\text{Jumlah skor}) \times (100\%) = \text{Nilai Kesahan Kandungan}$$

Selain memberi skor menggunakan skala yang disediakan, pakar juga boleh memberi cadangan penambahbaikan di ruangan komen. Selepas mendapat maklum balas dari pakar, pengkaji memperbaiki aspek yang di cadangkan oleh pakar.

Dapatan pada fasa ini juga diukur berdasarkan lima syarat kesahan modul menurut pandangan Russel (1974). Syarat-syarat kesahan kandungan modul ialah ketepatan sasaran populasi, kebolehlaksanaan modul, peruntukan masa yang mencukupi, peningkatan minat dan perubahan sikap. Modul mencapai kesahan yang tinggi jika peratus pencapaian kesahan modul melebihi 70%. (Sidek Jamaludin, 2005)

Fasa Pelaksanaan Dan Penilaian Kebolehgunaan

Semasa fasa pelaksanaan, pengkaji telah mendapat komen yang membina dari guru yang telah menjalankan kajian rintis bersama murid di sebuah sekolah yang mempunyai kelebihan teknologi. Murid bukan islam juga teruja apabila dapat diberi peluang untuk menggunakan aplikasi jawlah tiktok tersebut. Walau bagaimanapun, guru menyuarakan pendapat mengenai

kemudahan di sekolah yang masih lagi kekurangan seperti komputer riba dan peranti seperti telefon bimbit dan pemancar LCD.

Pada fasa ini pengkaji menggunakan instrumen senarai semak pemerhatian dan di antara perkara/elemen yang dimasukkan dalam senarai pemerhatian tersebut adalah aspek penguasaan murid, motivasi dan persepsi murid terhadap subjek bahasa Arab. Pada fasa ini jelas menunjukkan jawlah tiktok yang dibangunkan dapat mewujudkan suasana yang interaktif dan kondusif serta dapat menarik minat murid dan sesuai bagi kelas pendidikan abad ke-21.

Fasa penilaian kebolehgunaan melibatkan kumpulan pakar dalam bidang. Aplikasi Jawlah Tiktok yang dibangunkan ini menunjukkan peningkatan penguasaan murid terhadap sebutan huruf-huruf mutamathilah bahasa Arab dan turut meningkatkan motivasi serta minat murid dalam aktiviti pengajaran dan pembelajaran bahasa Arab. Pada fasa ini, pengkaji telah menilai tahap kebolehgunaan modul dengan menggunakan soal selidik yang di adaptasi dari soal selidik USE. Sejumlah 7 orang pakar telah dipilih yang terdiri daripada pakar bidang telah digunakan bagi menyatakan perspektif mereka terhadap kebolehgunaan aplikasi/modul yang telah dibangunkan. Item yang dibangunkan berdasarkan kepada empat konstruk/aspek kebolehgunaan iaitu kebergunaan, kemudahan penggunaan, kemudahan pembelajaran dan kepuasan.

Kesimpulannya, hasil-hasil dapatan yang diperolehi telah menjawab kepada objektif dan persoalan-persoalan kajian yang ditetapkan. Dapatan menunjukkan kumpulan pakar sepakat untuk menyokong pembangunan jawlah tiktok. Jawlah tiktok juga telah mencapai tahap kesahan kandungan dan kebolehgunaan yang tinggi. Di harapkan penggunaan jawlah tiktok ini dapat menjadi alternatif bahan bantu mengajar kepada guru-guru bahasa Arab dan murid sekolah rendah.

Penutup

Kajian ini bertujuan untuk membangunkan satu aplikasi bahan bantu mengajar dalam bentuk digital yang mempunyai elemen didik hibur bagi aktiviti pembelajaran dan pemudahcaraan bahasa Arab sekolah rendah yang berasaskan teknologi. Kajian ini juga di harap dapat memberi panduan kepada guru untuk membudayakan pembelajaran sendiri di kalangan murid sekolah rendah serta mewujudkan persekitaran interaktif yang berpusatkan murid sesuai dengan PdPc abad ke-21. Secara tidak langsung pembangunan aplikasi ini akan dapat mengatasi masalah kekurangan bahan bantu mengajar dalam kalangan guru bahasa Arab sekolah rendah.

Penghargaan

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PENGARUH ELEMEN PSIKOLOGI TERHADAP KESEIMBANGAN KERJA DAN KEHIDUPAN DALAM KALANGAN ANGGOTA ANGKATAN TENTERA MALAYSIA

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Abstract: *Keseimbangan Kerja dan Kehidupan (Work Life Balance - WLB) merupakan aspek yang sangat penting dalam diri setiap individu. Cabaran pekerjaan pada masa kini bukan sahaja menuntut kepada ketahanan fizikal malah elemen psikologi juga perlu diambil kira. Sejak akhir-akhir ini, isu melibatkan kesihatan mental dalam kalangan pekerja kerap berlaku dan semakin membimbangkan. Masalah sosio-ekonomi, persekitaran kehidupan dan tekanan di tempat kerja adalah antara faktor yang sering memberi kesan terhadap ketidakstabilan psikologi dalam diri pekerja. Kajian ini dijalankan bertujuan untuk mengenalpasti elemen psikologi iaitu kecerdasan emosi, kemurungan, kebimbangan dan tekanan terhadap WLB. Seramai 2,640 anggota Angkatan Tentera Malaysia (ATM) di seluruh Malaysia telah terlibat sebagai responden kajian dan telah melengkapkan set soal selidik kajian yang digunakan sebagai instrumen pengukuran dalam kajian ini. Kajian kuantitatif ini menggunakan analisis deksiptif dan kolerasi antara pemboleh ubah sebagai dapatan kajian. Hasil kajian ini mendapati dimensi kecerdasan emosi (SEA, OEA, UOE dan ROE) mempunyai hubungan signifikan yang positif terhadap WLB manakala faktor kebimbangan dan tekanan mempunyai hubungan signifikan yang negatif terhadap WLB. Walau bagaimanapun, faktor kemurungan pula didapati tiada hubungan signifikan dengan WLB. Dapatan kajian ini memberi gambaran secara ilmiah berkaitan implikasi elemen psikologi terhadap kesejahteraan dalam kalangan pekerja amnya dan anggota tentera khususnya. Oleh itu, majikan perlu lebih peka dalam menekankan ketahanan psikologi dalam kalangan pekerja bagi setiap program-program atau latihan yang dianjurkan oleh organisasi.*

Keywords: *Kecerdasan emosi, Kemurungan, Kebimbangan, Tekanan, Keseimbangan Kerja dan Kehidupan*

Pengenalan

Kajian lepas membuktikan bahawa kejayaan diri seseorang individu dihasilkan daripada 80% faktor kecerdasan emosi berbanding 20% adalah daripada faktor kecerdasan mental (Praya et al., 2019). Profesion tentera merupakan kerjaya yang mencabar dan memerlukan kecekapan yang tinggi dalam mengawal situasi tertentu, terutama ketika berhadapan dengan konflik yang melibatkan kawalan emosi dan mampu membuat keputusan dalam keadaan genting seperti peperangan (Eusoff & Arip, 2023; Naser, Chin & Mustamil, 2022). Peperangan bukan sahaja tertumpu kepada aspek kekuatan fizikal mahupun kecanggihan teknologi semata-mata tetapi elemen psikologi tentera juga perlu diambil kira (Othman et al., 2020). Kemurungan, kebimbangan dan tekanan juga merupakan isu kesihatan mental yang kerap berlaku dalam kalangan anggota tentera dan boleh menjadi lebih kritikal kerana perkhidmatan ketenteraan berisiko terhadap tekanan seperti pendedahan pertempuran, pemisahan yang lama daripada keluarga dan situasi tekanan tinggi (Rona et al., 2015). Selain itu, pemimpin angkatan tentera juga tidak menerima latihan formal tentang cara melaksanakan pemerintahan rejimen yang seimbang dengan kerja dan kehidupan dalam kalangan anggota tentera (Gaines, 2022). Isu-isu yang dibincangkan ini sudah pasti dapat memberi impak besar terhadap keseimbangan tanggungjawab anggota tentera di tempat kerja dan di rumah.

Mewujudkan keseimbangan antara kerja dan kehidupan seharian juga adalah penting untuk meningkatkan kesihatan dan mengurangkan risiko keletihan dan masalah kesihatan mental dalam kalangan anggota tentera. Kesedaran terhadap mengintegrasikan latihan kecerdasan emosi dan program sokongan, serta program menangani kebimbangan kesihatan mental dan WLB ke dalam latihan dan operasi ketenteraan semakin mendapat perhatian (Pflanz & Ogle, 2006). Walau bagaimanapun, kajian berkaitan kesejahteraan psikologi hanya meluas dijalankan di negara-negara barat tetapi dalam konteks kajian dalam organisasi ketenteraan terutamanya di ATM sendiri masih kurang diberi tumpuan (Othman et al., 2020). Tumpuan terhadap memperkasakan faktor WLB terutamanya dalam kalangan anggota tentera perlu diberi perhatian kerana mereka sering berhadapan dengan pelbagai kesukaran dan cabaran semasa bertugas (Gaines, 2022).

Terdapat dua elemen yang dapat mempengaruhi WLB iaitu faktor individu dan faktor masyarakat (Vasumathi, Sagaya & Poranki, 2019). Faktor individu yang mempengaruhi WLB digambarkan melalui keperibadian, kesihatan mental dan fizikal serta kecerdasan emosi. Faktor organisasi pula adalah berkait dengan tugas fleksibel, dasar dan program berkenaan WLB, bantuan kerja, ketegangan kerja, teknologi dan faktor berorientasikan peranan (Aldholay et al., 2018). Manakala faktor masyarakat yang mempengaruhi WLB adalah berkaitan dengan keluarga dan sokongan sosial. Faktor ini melibatkan tanggungjawab individu untuk menjaga anak dalam keluarga serta faktor masyarakat lain yang melibatkan tahap pengetahuan, gred pekerja, pendapatan, sifat pekerjaan, umur, jantina, status perkahwinan dan ibu bapa, dan sifat keluarga. (Poulose & Susdarsan, 2014).

Krisis disiplin dalam organisasi Angkatan Tentera Malaysia (ATM) yang berlaku pada masa kini kian mendapat perhatian dan menjadi agenda utama pucuk pimpinan ATM (Bujai & Hashim, 2015; Saud, 2008). Malah pelbagai masalah sosial, mental dan kemerosotan disiplin kerap berlaku dan membimbangkan dalam kalangan anggota tentera yang boleh mencemarkan imej organisasi (Othman et al., 2020). Situasi ini berlaku kerana tekanan kerja yang tinggi boleh mempengaruhi sikap dan tingkah laku dalam kalangan anggota tentera (Mohamed Ghani,

2011; Zakaria, 2009). Berdasarkan kajian indeks kesejahteraan psikologi yang dijalankan oleh Wan Othman (2014) terhadap anggota ATM menunjukkan 65.97% anggota Tentera Darat Malaysia berasa kurang sejahtera, manakala 17.6% responden melaporkan sangat tidak sejahtera. Kajian tersebut juga menunjukkan bahawa elemen kecerdasan emosi dapat memberi kesan positif terhadap kesihatan psikologi anggota tentera. Tambahan pula, Shamsuddin et al. (2021) menjelaskan antara faktor tekanan dalam kalangan anggota tentera pula berpunca daripada kekurangan tenaga kerja, waktu operasi yang lama, perubahan mendadak jadual ketika tidak bertugas, penempatan baharu, hukuman tentera dan konflik dengan pegawai. Malah gejala *burnout* juga berlaku berpunca daripada masalah tekanan mental yang kronik yang dihadapi oleh anggota tentera (Eusoff & Arip, 2023).

Sorotan Kajian Lepas

Kesan Kecerdasan Emosi terhadap Keseimbangan Kerja dan Kehidupan (WLB)

Kecerdasan Emosi merujuk kepada keupayaan individu untuk mengawal emosi diri, mempengaruhi emosi orang lain dan menggunakan emosi dalam konteks penyelesaian masalah (Balakrishnan & Saklofske, 2015). Individu yang memiliki kecerdasan emosi berkeupayaan untuk mencipta hasil yang positif dalam kehidupan diri dan juga dalam kehidupan orang lain. Hasil positif termasuk kegembiraan, keyakinan dan prestasi yang lebih baik dalam kerja dan kehidupan (Vasumathi, Sagaya & Poranki, 2019). Baker et al. (2022) menyatakan bahawa psikologi pengurusan diri adalah penting untuk pembangunan sahsiah, terutamanya dalam mencapai keseimbangan yang sihat antara kerja dan tanggungjawab peribadi. Keadaan peribadi yang berbeza mempunyai kesan ke atas WLB (Baker et al., 2019; Baker et al., 2022). Kajian tersebut mendapati kecerdasan emosi dan WLB mempunyai hubungan positif yang sederhana manakala, kemurungan, kebimbangan, dan tekanan (DAS) mempunyai hubungan negatif yang rendah dengan WLB. Dapatan kajian tersebut dapat menjadi panduan dalam membangunkan program dan aktiviti yang menyasarkan komponen psikologi kawalan diri anggota bagi meningkatkan bilangan anggota TUDM yang mampu mengekalkan WLB yang sihat.

Manakala kajian yang dijalankan oleh Kumarasamy, Pangil & Mohd Isa (2016) terhadap 1566 pegawai polis di Malaysia mendapati faktor kecerdasan emosi mempunyai hubungan yang signifikan dengan WLB. Kajian ini mencadangkan sokongan organisasi untuk mengukuhkan hubungan di antara pemboleh ubah adalah penting untuk memastikan pegawai polis mendapat kesejahteraan dalam pekerjaan dan kehidupan.

Sahoo dan Mehta (2020) telah mengkaji hubungan antara kecerdasan emosi dan WLB dalam kalangan kakitangan Tentera India. Berdasarkan penemuan kajian tersebut, kecerdasan emosi berkait rapat dengan WLB dalam kalangan anggota tentera India. Secara khusus, dimensi kecerdasan emosi iaitu kebolehan mengawal emosi diri (ROE) didapati berkorelasi baik dengan WLB. Ini menunjukkan bahawa individu yang mempunyai kesedaran diri dan mampu mengawal emosi mereka akan berjaya mengekalkan keseimbangan kehidupan kerja yang sihat. Namun, kajian itu juga mendapati bahawa kesedaran sosial iaitu mengenal emosi orang lain (OEA) mempunyai kaitan negatif dengan WLB. Dapatan ini menunjukkan bahawa individu akan lebih sensitif terhadap emosi orang lain dan boleh mencetuskan tekanan dalam kehidupan peribadi mereka dan akhirnya akan memberi kesan negatif pada keseimbangan kehidupan kerja mereka.

Menurut Subbalakshmi (2019), majoriti pekerja dalam industri teknologi maklumat, tanpa mengira jantina atau status perkahwinan mereka, menyokong persepsi yang menggalakkan

tentang kecerdasan emosi bersama-sama dengan WLB. Di samping itu, hasil tinjauan yang dijalankan terhadap 360 pekerja dalam bidang teknologi maklumat di kawasan Madhapur dan Gachobowli di bandar Hyderabad menunjukkan bahawa majoriti wanita yang berkerjaya merasakan bahawa tanggungjawab pekerjaan mereka mengganggu kehidupan peribadi mereka.

Mathew (2019) menjalankan kajian terhadap 200 sarjana di Kolej Pra-Universiti di Bangalore mendapati kecerdasan emosi dan WLB adalah salah satu cabaran untuk mengendalikan kehidupan profesional dan kehidupan peribadi di mana kedua-dua kehidupan mempengaruhi antara satu sama lain. Penyelidikan tersebut mendapati kakitangan institusi perlu menyampaikan kehidupan kerja asas yang wujud dalam organisasi untuk memastikan komitmen dan kepuasan ahli akademik adalah baik. Oleh itu, dedikasi dan proses pemikiran emosi/kognitif yang berkesan menghasilkan tahap keberkesanan, produktiviti, keupayaan dan motivasi yang paling tinggi.

Berdasarkan sorotan kajian lepas yang telah dibincangkan, maka kajian ini akan menguji hubungan antara empat dimensi kecerdasan emosi (menilai emosi diri, mengenal emosi orang lain, menggunakan emosi dan mengawal emosi diri) dengan pemboleh ubah WLB dalam kalangan anggota ATM di mana hipotesis yang dicadangkan ialah:-

- H₁: Terdapat hubungan antara menilai emosi diri (SEA) dengan keseimbangan kerja dan kehidupan (WLB) dalam kalangan anggota ATM.
- H₂: Terdapat hubungan antara mengenal emosi orang lain (OEA) dengan keseimbangan kerja dan kehidupan (WLB) dalam kalangan anggota ATM.
- H₃: Terdapat hubungan antara menggunakan emosi (UOE) dengan keseimbangan kerja dan kehidupan (WLB) dalam kalangan anggota ATM.
- H₄: Terdapat hubungan antara mengawal emosi diri (ROE) dengan keseimbangan kerja dan kehidupan (WLB) dalam kalangan anggota ATM.

Kesan Tekanan, Kebimbangan dan Kemurungan terhadap WLB

Individu yang gagal mengurus WLB berpotensi terhadap tekanan diri dan boleh menyebabkan kesihatan terjejas seterusnya memberi kesan terhadap kesejahteraan emosi (Gaines, 2022). Anggota tentera sentiasa ditugaskan menjalankan operasi ketenteraan yang memerlukan mereka meninggalkan keluarga selama tempoh yang panjang boleh menyebabkan wujudnya tekanan dalam kehidupan dalam kalangan anggota tentera (Gaines, 2022). Tuntutan tugas yang mencabar dan berisiko sebagai anggota tentera akan mewujudkan kebimbangan sama ada dalam kalangan anggota tentera itu sendiri mahu pun terhadap ahli keluarga mereka.

Sprung dan Rogers (2021) telah menjalankan kajian keratan rentas terhadap 111 pelatih dari institusi Midwestern untuk menentukan hubungan antara WLB, tekanan yang dirasakan, kebimbangan dan hasil kemurungan. Matlamat kajian ini adalah untuk mengkaji bagaimana WLB boleh membawa kepada kebimbangan dan kemurungan dalam kalangan pelajar. Kajian ini mendapati WLB mempunyai perkaitan dengan tekanan, kebimbangan keseluruhan, dan hasil individu yang tidak menguntungkan. Hubungan antara WLB dan kebimbangan, serta hubungan antara WLB dan kemurungan, sepenuhnya dihubungkan dengan tekanan kerja.

Sarwar et al. (2021) telah menjalankan penyelidikan ke atas 40 ahli akademik di Pakistan mendapati elemen psikologi dan WLB mempunyai hubungan antara satu sama lain. Kajian itu

mendapati kepentingan modal psikologi sebagai sumber personaliti yang boleh dibangunkan bersama faktor persekitaran dalam mempengaruhi WLB.

Berdasarkan kajian Panatik et al. (2022), tahap integrasi dari faktor kerja kepada kehidupan dan integrasi kehidupan kepada kerja masing-masing mempunyai perkaitan yang sederhana kepada tinggi dan sederhana kepada rendah. Kajian ini juga mendapati bahawa WLB mempunyai kesan yang ketara terhadap kesihatan mental. Oleh itu, penemuan menunjukkan pekerja yang mempunyai integrasi kehidupan kerja yang tinggi dilaporkan mengalami tahap kemurungan, kebimbangan dan tekanan yang lebih tinggi.

Saraswati dan Lie (2020) menyatakan organisasi perlu memastikan kesejahteraan psikologi dalam kalangan pekerja dengan menghapuskan faktor yang boleh memberi kesan negatif kepada pekerja. Kajian ini menunjukkan keseimbangan kehidupan kerja mempunyai kesan yang besar dan dominan terhadap kesejahteraan psikologi. Ia menunjukkan bahawa WLB sebagai komponen penting untuk kualiti hidup yang terbaik.

Kaur dan Randhawa (2017) mengkaji hubungan antara WLB, tekanan, kesihatan mental dengan kehidupan dan kepuasan kerja. Responden lelaki didapati lebih berpuas hati dengan pekerjaan mereka berbanding responden wanita. Sebaliknya, responden wanita melihat pekerjaan dan keluarga adalah sama penting, dan kedua-duanya adalah sumber kebahagiaan mereka. Dapatan kajian ini juga mendapati WLB berkorelasi positif dengan kesihatan mental, kepuasan kerja, dan kepuasan hidup pada responden lelaki dan wanita.

Teori Keazaman Kendiri (*Self-Determination Theory*) membincangkan aspek motivasi ekstrinsik (pengintegrasian dan integrasi) dan faktor motivasi intrinsik (autonomi, kecekapan, dan perkaitan) yang membolehkan pembangunan personaliti dan peraturan sendiri tingkah laku untuk meningkatkan kesejahteraan dan prestasi individu dalam organisasi dan masyarakat (Mario, 2016). Manakala Teori *Job Demands-Resources* (JD-R) menilai kemerosotan kesihatan didorong oleh tuntutan pekerjaan, manakala motivasi dicetuskan oleh sumber pekerjaan. Hasil organisasi yang penting boleh diramal menggunakan model yang juga memperincikan korelasi antara keperluan dan sumber yang ada dalam organisasi (Demerouti & Bakker, 2011).

Berdasarkan Teori Keazaman Kendiri (Deci & Ryan, 1980) dan Teori *JD-R* (Demerouti et al., 2001) termasuk penemuan empirikal daripada kajian lepas, maka kajian ini akan menguji hipotesis berkaitan hubungan antara pemboleh ubah seperti berikut:

- H₅: Terdapat hubungan antara kemurungan dan keseimbangan kerja dan kehidupan (WLB) dalam kalangan anggota ATM.
- H₆: Terdapat hubungan antara kebimbangan dan keseimbangan kerja dan kehidupan (WLB) dalam kalangan anggota ATM.
- H₇: Terdapat hubungan antara tekanan dan keseimbangan kerja dan kehidupan (WLB) dalam kalangan anggota ATM.

Metodologi Kajian

Prosedur Persampelan

Kajian ini menggunakan pendekatan kuantitatif dengan mengedarkan soal selidik kepada 2,640 anggota ATM yang diambil dari tiga cabang utama ATM melibatkan Tentera Darat Malaysia

(TDM), Tentera Udara Diraja Malaysia (TUDM) dan Tentera Laut Diraja Malaysia (TLDM). Teknik kaedah kuantitatif yang digunakan dalam kajian ini ialah persampelan bertujuan melibatkan persampelan pertimbangan (*judgement sampling*). Menurut Chua (2011), persampelan bertujuan merujuk kepada prosedur persampelan di mana kumpulan subjek yang mempunyai kriteria yang diperlukan akan dipilih sebagai responden. Data yang diperoleh kemudiannya dianalisa menggunakan kaedah inferensi *Partial least squares* (PLS) melalui *Structural Equation Modeling* (SEM).

Insrumen Kajian

Instrumen yang digunakan untuk mengukur pemboleh ubah kecerdasan emosi bagi kajian ini adalah *Wong and Law Emotional Intelligence Scale* (WLEIS) versi 16 item. Skala ini mengukur empat dimensi kecerdasan emosi yang mempunyai nilai kebolehpercayaan yang tinggi di mana nilai alpha (α) bagi setiap dimensi iaitu menilai emosi diri (SEA) (0.821), mengenal emosi orang lain (OEA) (0.796), menggunakan emosi (UOE) (0.828), dan mengawal emosi diri (ROE) (0.865) (Wong & Law, 2002).

Bagi pengukuran pemboleh ubah kemurungan, kebimbangan dan tekanan, kajian ini menggunakan *Depression Anxiety and Stress Scale* (DASS-21) versi Bahasa Malaysia yang mengandungi 21 item pengukuran (DAS; Rani et al., 2018). Nilai kebolehpercayaannya juga tinggi iaitu kemurungan ($\alpha=0.956$), kebimbangan ($\alpha=0.942$) dan tekanan ($\alpha=0.933$). Akhir sekali instrumen bagi pemboleh ubah bersandar pula, kajian ini menggunakan *Work Life Balance Scale* diambil daripada kajian Omar (2013). Alat pengukuran ini memiliki tujuh item dan mempunyai nilai kebolehpercayaan $\alpha=0.906$. Kesemua pemboleh ubah ini diukur menggunakan skala Likert 5 mata antara 1 hingga 5 dengan 1 mewakili "Sangat Tidak Setuju" hingga 5 mewakili "Sangat Setuju."

Keputusan dan Perbincangan

Demografi Responden

Hasil dapatan bagi demografi kajian ini menunjukkan sebanyak 90.6 peratus (2,392) responden adalah lelaki, dan 9.4 peratus (248) wanita. Majoriti peserta (45.6%) (1,205) berumur antara 21 hingga 30 tahun dan berbangsa Melayu (84.5%: 2,232). Taraf pendidikan responden adalah di peringkat Sijil Pelajaran Malaysia (SPM) (59.2%: 1,564), Penilaian Menengah Rendah (PMR) (3.8%:99), Sijil Tinggi Pelajaran Malaysia (SPM)/ Diploma (18.5%: 488), Ijazah (15.1%: 399) dan Sarjana/PhD (3.4%: 90). Pecahan responden bagi ketiga-tiga cabang ATM adalah TDM (37.7%: 995). TUDM (33.4%: 881) dan TLDM (28.9%: 764). Majoriti responden (44.1%: 1,164) mempunyai pengalaman 11 hingga 20 tahun, dan seramai 47.8% (1,261) memperoleh gaji kurang daripada RM3000 sebulan.

Pengukuran Model

Rajah 1, Jadual 1 dan Jadual 2 adalah keputusan pengukuran model kajian menggunakan analisis SmartPLS untuk analisis deskriptif dan inferensi. Analisis deskriptif di Jadual 1 adalah pengukuran bagi nilai *loadings*, *Average Variance Extracted* (AVE) dan *Composite Reliability* (CR). Kesemua pemboleh ubah kajian menunjukkan nilai AVE dan CR yang bersesuaian dan mematuhi prosedur SmartPLS.

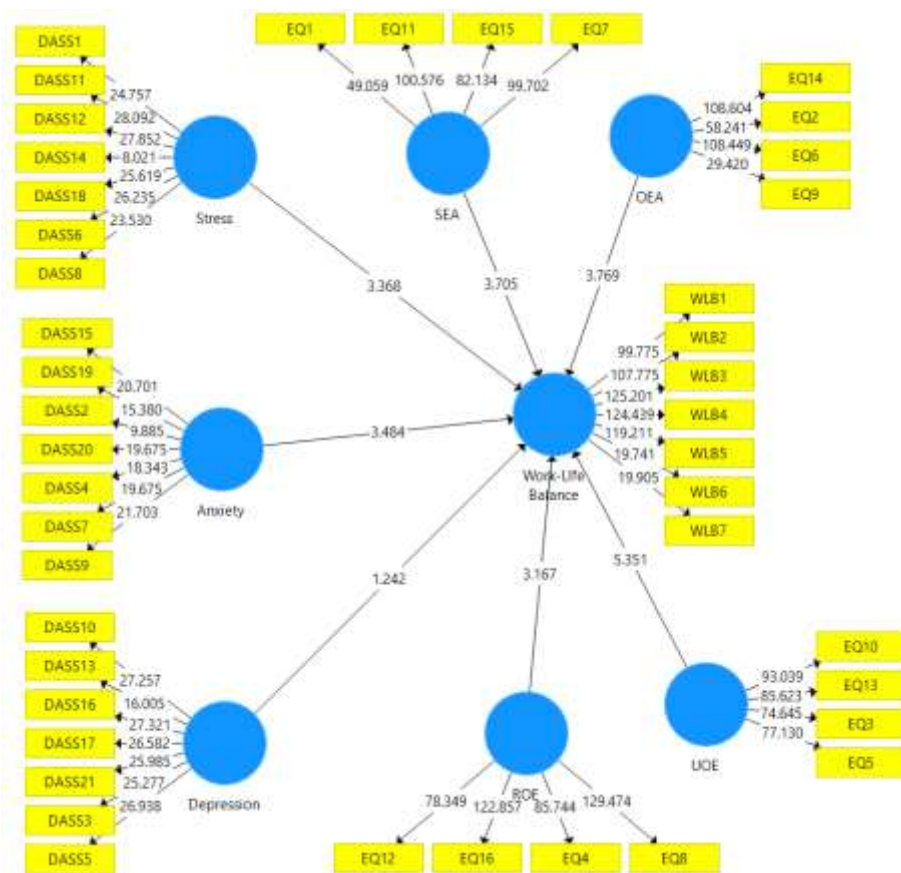
Jadual 1: Pengukuran Model

| Construct | Item | Loadings | AVE | CR | Diskriminan |
|------------------|-------------|-----------------|------------|-----------|--------------------|
| Tekanan | DASS1 | 0.821 | 0.715 | 0.946 | Ya |
| | DASS6 | 0.849 | | | |
| | DASS8 | 0.785 | | | |
| | DASS11 | 0.926 | | | |
| | DASS12 | 0.924 | | | |
| | DASS14 | 0.773 | | | |
| | DASS18 | 0.828 | | | |
| Kebimbangan | DASS2 | 0.673 | 0.738 | 0.951 | Ya |
| | DASS4 | 0.874 | | | |
| | DASS7 | 0.874 | | | |
| | DASS9 | 0.897 | | | |
| | DASS15 | 0.933 | | | |
| | DASS19 | 0.819 | | | |
| | DASS20 | 0.918 | | | |
| Kemurungan | DASS3 | 0.828 | 0.789 | 0.963 | Ya |
| | DASS5 | 0.858 | | | |
| | DASS10 | 0.920 | | | |
| | DASS13 | 0.872 | | | |
| | DASS16 | 0.929 | | | |
| | DASS17 | 0.907 | | | |
| | DASS21 | 0.900 | | | |
| SEA | EQ1 | 0.723 | 0.653 | 0.882 | Ya |
| | EQ7 | 0.841 | | | |
| | EQ11 | 0.847 | | | |
| | EQ15 | 0.813 | | | |
| OEA | EQ2 | 0.764 | 0.621 | 0.866 | Ya |
| | EQ6 | 0.849 | | | |
| | EQ9 | 0.659 | | | |
| | EQ14 | 0.862 | | | |
| UOE | EQ3 | 0.796 | 0.660 | 0.886 | Ya |
| | EQ5 | 0.790 | | | |
| | EQ10 | 0.843 | | | |
| | EQ13 | 0.820 | | | |
| ROE | EQ4 | 0.826 | 0.711 | 0.908 | Ya |
| | EQ8 | 0.868 | | | |
| | EQ12 | 0.812 | | | |
| | EQ16 | 0.867 | | | |
| WLB | WLB1 | 0.854 | 0.653 | 0.928 | Ya |

| | |
|------|-------|
| WLB2 | 0.881 |
| WLB3 | 0.900 |
| WLB4 | 0.890 |
| WLB5 | 0.884 |
| WLB6 | 0.586 |
| WLB7 | 0.583 |

Nota: Penunjuk bahawa nilai >0.05 akan diterima (Hair et al., 2014)

Berdasarkan Rajah 1 dan Jadual 2-pula menunjukkan enam daripada tujuh hipotesis yang diuji mempunyai hubungan signifikan antara satu sama lain. Hipotesis yang tidak signifikan adalah hubungan antara pemboleh ubah kemurungan dengan WLB. Keempat-empat dimensi kecerdasan emosi mempunyai hubungan signifikan yang positif dengan WLB di mana dimensi SEA, OEA, UOE dan ROE menunjukkan paras signifikan yang sangat tinggi. Manakala hubungan antara pemboleh ubah tekanan dan kebimbangan pula menunjukkan hubungan signifikan yang negatif dengan WLB secara sederhana.



Rajah 1. Struktur Model Kajian

Jadual 2: Struktur Model

| No. | Hubungan antara pemboleh ubah | Path Estimation (β) | Nilai t | Nilai p | Paras Signifikan | Keputusan | R ² |
|----------------|-------------------------------|-----------------------------|-----------|-----------|------------------|----------------|----------------|
| H ₁ | Tekanan-WLB | -0.284 | 3.368 | 0.001 | * | Disokong | |
| H ₂ | Kebimbangan-WLB | -0.289 | 3.484 | 0.001 | * | Disokong | |
| H ₃ | Kemurungan-WLB | -0.095 | 1.242 | 0.214 | T.S. | Tidak Disokong | 0.259 |
| H ₄ | SEA-WLB | 0.148 | 3.705 | 0.000 | *** | Disokong | |
| H ₅ | OEA-WLB | 0.099 | 3.789 | 0.000 | *** | Disokong | |
| H ₆ | UOE-WLB | 0.187 | 5.351 | 0.000 | *** | Disokong | |
| H ₇ | ROE-WLB | 0.104 | 3.167 | 0.002 | * | Disokong | |

Nota: *** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$; T.S. = Tidak Signifikan pada $p > 0.05$.

SEA= menilai emosi diri, OEA= mengenal emosi orang lain, UOE= menggunakan emosi, ROE= mengawal emosi diri, WLB= keseimbangan kerja dan kehidupan

Perbincangan

Berdasarkan dapatan analisis kajian yang diperolehi ini, kajian ini mengesahkan bahawa sebanyak enam faktor iaitu tekanan, kebimbangan dan empat dimensi kecerdasan emosi (SEA, OEA, UOE dan ROE) dapat mempengaruhi WLB dalam kalangan anggota tentera. Faktor tekanan dan kebimbangan mempengaruhi secara negatif terhadap WLB di mana semakin tinggi tahap tekanan dan kebimbangan anggota tentera maka akan menyebabkan kemerosotan terhadap kualiti WLB mereka. Berbeza pula dengan hubungan antara empat dimensi kecerdasan emosi (SEA, OEA, UOE dan ROE) yang didapati berhubungungan secara positif dengan WLB. Semakin tinggi tahap kecerdasan emosi akan meningkatkan lagi tahap kualiti WLB anggota tentera.

Dapatan kajian ini memberikan gambaran bahawa keupayaan anggota tentera untuk menilai, mengenali, mengguna dan mengawal emosi boleh mempengaruhi sejauh mana tahap WLB mereka. Berdasarkan analisis ini, organisasi ATM perlu memberi perhatian terhadap faktor-faktor yang boleh memberi kesan kepada WLB dalam usaha meningkatkan modal insan dalam konteks kesejahteraan anggotanya. Selain daripada membudayakan amalan rekreasi dalam kalangan anggota tentera, pihak ATM juga perlu memupuk dan memberi kesedaran kepada anggota tentera dengan program latihan dan program yang dapat meningkatkan kemahiran mengawal emosi dan tekanan diri. Sokongan pucuk pimpinan ATM juga penting dalam menyediakan kemudahan kaunseling dan bantuan khidmat nasihat oleh pakar bertauliah kepada anggota yang berhadapan dengan situasi tekanan diri.

Secara teorinya Model Penglibatan Kerja: *Job Demands-Resources* (JD-R) telah diuji dan disahkan secara berkesan berdasarkan penemuan kajian yang telah dicapai. Hasil analisis ini menunjukkan bahawa sumber peribadi, seperti kecerdasan emosi, kebimbangan, dan tekanan, saling berkaitan dengan WLB melalui proses motivasi yang memberi kesan. Kajian ini telah menunjukkan bahawa ciri-ciri individu seperti kecerdasan emosi tidak boleh disalahtafsirkan dan organisasi ketenteraan mesti cuba meningkatkan sifat ini dalam kalangan anggota tentera untuk menyelesaikan kebimbangan mengenai tekanan berkaitan kerja dan isu kesihatan mental dalam kalangan anggota tentera.

Kesimpulan

Kajian ini telah memberi gambaran dan pengetahuan yang jelas tentang kepentingan hubungan antara kecerdasan emosi, kemurungan, kebimbangan, tekanan dan keseimbangan dan kerja kehidupan secara umum. Dengan menyediakan data empirikal yang boleh digunakan oleh penyelidik lain, dapatan kajian ini boleh menyumbang kepada kepentingan ATM khususnya dalam mempersiapkan modal insan yang lebih sejahtera dari segi tugas dan kehidupan. Di samping itu, sumbangan kajian ini membantu pengurusan organisasi tentang kepentingan faktor kecerdasan emosi, kemurungan, kebimbangan, tekanan, dan keseimbangan kehidupan kerja dalam meningkatkan kesejahteraan di kalangan pekerja amnya dan anggota tentera khususnya. Oleh itu, majikan akan dapat membina program-program atau latihan untuk meningkatkan kecerdasan emosi pekerja mereka, serta mewujudkan persekitaran yang harmoni dan budaya kerja yang sihat untuk memastikan emosi dan tahap tekanan diri pekerja mereka di tahap optimum. Malah organisasi akan dapat menyedari bahawa pendekatan aspek kecerdasan emosi dan kesedaran kesihatan mental dan kesejahteraan, seperti pemahaman tentang kemurungan, kebimbangan dan tekanan, adalah satu cara untuk meningkatkan penglibatan pekerja. Selain itu, pihak pengurusan boleh memantapkan sistem pengambilan anggota tentera dengan mentadbir peperiksaan kecerdasan emosi kepada calon saringan pemilihan pegawai baharu yang mempunyai tahap kecerdasan emosi yang tinggi.

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HUBUNGAN KECERDASAN EMOSI, KEMURUNGAN, KEBIMBANGAN DAN TEKANAN TERHADAP KESEIMBANGAN KERJA DAN KEHIDUPAN DALAM KALANGAN TENTERA DARAT MALAYSIA

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Abstract: Kesedaran masyarakat terhadap kepentingan mengimbangi kerja dan kehidupan semakin meningkat selepas era pasca pandemik. Peningkatan kes kesihatan mental sejak akhir-akhir ini merupakan salah satu cabaran kepada negara sehinggalah pihak kerajaan Malaysia telah memperincikan isu ini dalam Kertas Putih Kesihatan yang menjadi pelan reformasi kesihatan negara. Faktor emosi, bebanan kerja yang berlebihan dan tekanan kerja sering dikaitkan dengan tahap ketahanan mental dalam kalangan pekerja serta memberi kesan terhadap kualiti kerja dan kesejahteraan dalam kehidupan. Fokus kajian ini adalah untuk mengenalpasti hubungan antara kecerdasan emosi, kemurungan, kebimbangan dan tekanan terhadap keseimbangan kerja dan kehidupan dalam kalangan Tentera Darat Malaysia (TDM). Seramai 995 anggota TDM di seluruh Malaysia telah dipilih menjadi responden kajian ini. Instrumen kajian yang digunakan adalah set soal selidik untuk mengukur tahap kecerdasan emosi, kemurungan, kebimbangan, tekanan serta keseimbangan kerja dan kehidupan. Penganalisan data kajian ini menggunakan analisis deksiptif dan kolerasi antara pemboleh ubah untuk mengukur pengaruh hubungan antara faktor kecerdasan emosi, kemurungan, kebimbangan dan tekanan terhadap keseimbangan kerja dan kehidupan dalam kalangan anggota TDM. Dapatan kajian mendapati dimensi kecerdasan emosi iaitu mengenal emosi orang lain (OEA), menggunakan emosi (UOE) dan mengawal emosi (ROE) mempunyai hubungan signifikan positif dengan keseimbangan kerja dan kehidupan manakala dimensi menilai emosi diri (SEA) tidak mempunyai hubungan signifikan. Pemboleh ubah kemurungan, kebimbangan dan tekanan pula mempunyai hubungan signifikan negatif dengan keseimbangan kerja dan kehidupan. Keputusan ini menunjukkan bahawa elemen kecerdasan emosi,

kemurungan, kebimbangan dan tekanan dapat memberi kesan langsung terhadap kesejahteraan dalam kalangan anggota TDM. Pucuk pimpinan TDM perlu menitik beratkan aspek ketahanan mental anggota TDM melalui program dan latihan yang bersesuaian dengan menekankan pengukuhan elemen psikologi yang berkesan.

Kata Kunci: *Kecerdasan emosi, Kemurungan, Kebimbangan, Tekanan, Keseimbangan Kerja dan Kehidupan*

Pengenalan

Setiap individu mempunyai pelbagai cabaran yang perlu dihadapi apabila hendak mengimbangi antara kerja dan kehidupan peribadi. Kehidupan berkeluarga dan bekerja adalah dua situasi yang mempengaruhi antara satu sama lain. Konflik antara kerja dan keluarga adalah berpunca daripada waktu bekerja yang panjang, meluangkan masa yang terhad di rumah dan jadual kerja yang tidak fleksibel (Vasumathi, Sagaya & Poranki, 2019). Konflik tercetus apabila melibatkan peranan dan masa yang diperuntukkan berlaku pada masa yang sama dalam dua keadaan yang berbeza menyebabkan individu berada dalam keadaan dilema untuk mengutamakan urusan kerja atau tanggungjawab di rumah (Dursun, Urban, & Dean, 2018). Keseimbangan kerja dan kehidupan kini telah menjadi isu yang mendapat perhatian di seluruh dunia melibatkan institusi dan sosial (Znidarsic & Bernik, 2021). Profesion ketenteraan kerap berhadapan dengan konflik antara kerja dan kehidupan. Tinjauan yang pernah dijalankan terhadap anggota Angkatan Pertahanan Kanada mendapati empat ke lima daripada setiap 10 anggota tentera berhadapan dengan konflik antara kerja dan kehidupan (Dursun, Urban, & Dean, 2018).

Kini di sektor awam, organisasi semakin menitik berat kepada pekerja untuk mencapai keseimbangan optimum antara tugas dan kehidupan peribadi, termasuk keluarga, hobi, pendidikan, perkhidmatan sukarela dan ketaatan agama (Adkins & Premeaux 2019). Malah sejak akhir-akhir ini, kajian berkaitan dengan keseimbangan kerja dan kehidupan serta konflik dalam kalangan anggota tentera juga semakin mendapat perhatian para penyelidik (Berndtsson & Osterberg, 2023; Gaines, 2022; Johnson & Goldenberg, 2019).

Secara amnya, pendekatan keseimbangan kerja dan kehidupan merujuk kepada penambahbaikan organisasi dalam program dan budaya korporat untuk mengurangkan tekanan di tempat kerja dan kehidupan peribadi dalam membolehkan pekerja mencapai produktiviti kerja yang lebih tinggi. Menurut Wong et al. (2017), kehidupan yang seimbang adalah berkait dengan kehidupan peribadi dan kehidupan keluarga yang optimum serta menghasilkan masa yang berkualiti, penglibatan yang tinggi dan tahap kepuasan kerja yang lebih baik. Tambahan pula, keseimbangan kerja dan kehidupan boleh dianggap sebagai keseronokan pekerja terhadap kepelbagaian kerja dan tanggungjawab peribadi apabila pekerja terlibat secara sama rata dan berpuas hati dengan tugas di pejabat dan tanggungjawab di rumah (Nwagbara, 2020).

Ketidakeimbangan antara kerja dan kehidupan akan menyebabkan tahap motivasi pekerja menjadi rendah, kesihatan yang tidak baik, kadar ketidakhadiran yang tinggi, produktiviti yang menurun, dan keletihan emosi seterusnya membawa kepada konflik di tempat kerja dan keluarga (Arora & Wagh, 2017). Oleh itu, untuk mencapai keseimbangan kerja dan kehidupan adalah satu isu yang kritikal sama ada di sektor kerajaan mahu pun di sektor swasta (Wolor et al., 2020). Menurut Gaines (2022), anggota tentera darat berpotensi mengalami masalah

burnout, konflik dan gaya hidup yang tidak seimbang jika tidak dibekalkan latihan yang mencukupi. Setiap anggota tentera memerlukan keseimbangan antara tugas di tempat kerja dan tanggungjawab di rumah agar mereka mempunyai kesejahteraan dalam hidup dan seterusnya kekal setia dengan organisasi (Berndtsson & Osterberg, 2023).

Faktor emosi atau perasaan adalah komponen asas dalam perilaku manusia yang sentiasa mempengaruhi tingkah laku individu di tempat kerja (Muthusamy, 2019). Kecerdasan emosi merujuk keupayaan untuk mengawal dan mengaplikasikan emosi sendiri secara berkesan (Choudhary & Rao, 2018; Subbalakshmi, 2019). Keupayaan emosi merangkumi kehalusan dalam berkomunikasi dan kemahiran interpersonal atau intrapersonal, yang saling berkaitan dengan kebolehan kognitif, iaitu hafalan, kreativiti, kefahaman dan penaakulan (Applewhite, 2017). Pekerja yang memiliki tahap kecerdasan emosi yang tinggi boleh menyesuaikan diri dengan persekitaran baharu dengan mudah dan mempamerkan prestasi yang baik kepada organisasi mereka (Ameen, Almari, & Isaac, 2019). Individu yang mempunyai kecerdasan emosi yang tinggi mempunyai kesedaran sendiri, pertimbangan, empati dan kemahiran sosial yang sesuai, penilaian yang berkesan terhadap rakan sebaya dan dapat membina hubungan yang baik antara satu sama lain (Arora & Wagh, 2017; Baker et al., 2019; Baker, 2010).

Anggota tentera di Malaysia sering terdedah operasi yang mencabar melibatkan bencana alam dan isu pertahanan negara yang berisiko tinggi yang berpotensi memberi kesan kemurungan, kebimbangan dan tekanan kepada anggota tentera (Thomas et al., 2022). Menurut Bernard (2017), kemurungan terdiri daripada pelbagai gejala, termasuk kemurungan kronik, mood rendah, rasa tidak berdaya, tidur atau selera makan terganggu, keletihan, dan trauma psikologi. Manakala kebimbangan pula disebabkan oleh pelbagai peristiwa negatif yang meningkatkan tahap kebimbangan peribadi atau sangat mengganggu kestabilan ekspresi emosi untuk berfungsi (Adwas, Jbireal & Azab, 2019). Tekanan pula boleh dikaitkan dengan tahap ketegangan yang dirasakan sendiri atau ketidakcekapan peribadi dalam menghadapi tekanan yang tidak dirancang. Tekanan muncul sebagai tindak balas fisiologi terhadap ketegangan yang dihadapi yang datang dari situasi atau peristiwa yang berlaku.

Oleh yang demikian, objektif kajian ini adalah untuk mengenalpasti hubungan antara dimensi kecerdasan emosi (SEA, OEA, ROE, dan UOE), kebimbangan, kemurungan, dan tekanan dengan keseimbangan kerja dan kehidupan dalam kalangan anggota Tentera Darat Malaysia (TDM).

Sorotan Kajian Lepas

Hubungan Kecerdasan Emosi dengan Keseimbangan Kerja dan Kehidupan

Kecerdasan emosi dan kualiti kehidupan adalah saling berhubung antara satu sama lain di mana dari sudut individu yang memiliki kecerdasan emosi yang baik lazimnya mempunyai kualiti kehidupan yang sejahtera dan berkualiti (Baker et al., 2019; Malik & Dave, 2023). Menurut Malik dan Dave (2023), pekerja yang memiliki tahap kecerdasan emosi yang tinggi memiliki keupayaan untuk memenuhi kewajipan dan tanggungjawab peribadi dan kerjaya dengan seimbang.

Madan dan Raja (2019) telah mengkaji perkaitan antara kecerdasan emosi dan keseimbangan kerja dan kehidupan dalam kalangan 183 pekerja di Thangamayil Jewellery menggunakan metodologi penyelidikan deskriptif. Hasil kajian mereka mendapati bahawa penajajaran yang berkesan pada jangkaan majikan dan pekerja perlu dicapai melalui pemilihan waktu kerja yang

fleksibel dan pendekatan kontemporari untuk meningkatkan produktiviti tanpa menjejaskan kesejahteraan pekerja, perhubungan sosial dan gaya hidup peribadi pekerja.

Selain itu, Messigah dan Adeogun (2019) pula mengkaji berkaitan keadilan organisasi untuk menganalisis hubungan antara kecerdasan emosi dan keseimbangan kerja dan kehidupan dalam kalangan staf Guaranty Trust Bank di Lagos State. Keputusan kajian ini menunjukkan korelasi positif yang signifikan antara kecerdasan emosi dan keseimbangan kerja dan kehidupan dan antara kecerdasan emosi dan keadilan organisasi.

Vidhya (2019) mendapati kecerdasan emosi merupakan faktor yang penting untuk mencapai keseimbangan kerja dan kehidupan dan membezakan sempadan antara tugas kerja dan kehidupan peribadi. Kecerdasan emosi juga penting untuk melaksanakan kerja dengan berkesan sambil mengatur masa berkualiti bersama keluarga. Kajian lain dijalankan oleh Subbalakshmi (2019) pula telah mendedahkan bahawa pekerja dalam sektor Teknologi Maklumat (IT) boleh mencapai keseimbangan kerja dan kehidupan melalui kawal selia sendiri, kesedaran dan motivasi di tempat kerja dan di rumah. Begitu juga dengan kajian oleh Sakalle et al. (2017) yang menilai kecerdasan emosi 170 pekerja IT dan kesan yang berkaitan pada keseimbangan kerja dan kehidupan di Mumbai dan Pune. Penemuan kajian ini mendedahkan bahawa profesional IT yang mempunyai kepakaran IT yang tinggi memiliki tahap kecerdasan emosi yang lebih tinggi dan seterusnya menyumbang kepada keseimbangan kerja dan kehidupan mereka secara positif. Sebaliknya, pekerja yang mempunyai pengalaman IT yang terhad akan menunjukkan kecerdasan emosi yang lebih rendah, mengakibatkan ketidakseimbangan kehidupan kerja disebabkan peningkatan masa yang diperlukan untuk menyelesaikan tugas kerja.

Mathew (2019) telah mengkaji hubungan antara kecerdasan emosi dan keseimbangan kerja dan kehidupan dalam kalangan 200 ahli akademik pra-universiti dan kolej mendapati kecerdasan emosi dikaitkan secara sederhana dengan keseimbangan kerja dan kehidupan secara positif. Sementara itu, Kumar dan Jyothirmal (2018) meneroka kaitan antara kecerdasan emosi dan keseimbangan kerja dan kehidupan di pantai utara Visakhapatnam, India dengan menganalisis data sekunder dan menjalankan temu bual dengan pekerja runcit. Kajian ini mendapati keupayaan kecerdasan emosi yang dimiliki pekerja mampu membantu mereka menyelesaikan kesukaran berkaitan pekerjaan sambil meningkatkan kualiti dan kepuasan kerja, yang boleh meningkatkan produktiviti pekerja secara keseluruhan.

Begitu juga, Vasumathi et al., (2019) menilai kesan kecerdasan emosi terhadap keseimbangan kerja dan kehidupan dalam kalangan pekerja kolej swasta di Tamil Nadu, India melalui analisis *multivariate*. Kajian tersebut mendedahkan pekerja yang mempunyai kecerdasan emosi yang tinggi akan merancang tugas mereka secara sistematik untuk meningkatkan produktiviti sambil menghalang waktu bekerja yang panjang untuk diperuntukkan kepada masa peribadi yang mencukupi.

Berdasarkan sorotan kajian lepas, maka kajian ini akan menguji hipotesis berkaitan hubungan antara dimensi kecerdasan emosi dengan keseimbangan kerja dan kehidupan seperti berikut:

- H₁: Terdapat hubungan yang signifikan antara mengenal emosi orang lain (OEA) dengan keseimbangan kerja dan kehidupan.
- H₂: Terdapat hubungan yang signifikan antara mengawal emosi diri (ROE) dengan keseimbangan kerja dan kehidupan.

- H₃: Terdapat hubungan yang signifikan antara menggunakan emosi (UOE) dengan keseimbangan kerja dan kehidupan.
- H₄: Terdapat hubungan yang signifikan antara menilai emosi diri (SEA) dengan keseimbangan kerja dan kehidupan.

Hubungan Tekanan, Kebimbangan dan Kemurungan dengan Keseimbangan Kerja dan Kehidupan

Kesihatan mental adalah penyumbang terbesar kepada angka statistik bagi penyakit kategori tidak berjangkit di Malaysia. Berdasarkan Kertas Putih Kesihatan yang dibentangkan di Parlimen pada 13 Jun 2023 yang lalu menunjukkan penyakit mental memberi kesan signifikan terhadap ekonomi negara di mana kos yang dianggarkan terlibat akibat tidakhadiran bekerja dan sakit ketika bekerja telah mencecah RM13.1 bilion. Manakala Pertubuhan Kesihatan Sedunia (WHO) mengesahkan kesan penyakit mental telah menyebabkan kehilangan produktiviti dan kemurungan dalam kalangan pekerja seterusnya melibatkan kos ekonomi global sebanyak USD1 trilion setahun (Kementerian Kesihatan Malaysia, 2023).

Kajian yang pernah dijalankan sebelum ini mengenai keseimbangan kerja dan kehidupan dalam kalangan tentera menunjukkan faktor kerja lebih masa dan beban kerja yang tinggi mempunyai kecenderungan mewujudkan konflik kehidupan dan tekanan kerja (Huffman et al., 2014). Tekanan, kebimbangan dan kemurungan sering digunakan untuk menilai keadaan psikologi, terutamanya kehadiran emosi negatif (Basha & Kaya, 2016; Lovibond & Lovibond, 1995). Menurut Meiering et al., (2023), kemurungan ditakrifkan sebagai mood rendah berterusan yang terdiri daripada *dysphoria*, putus asa, ketiadaan tenaga dan *anhedonia*. Manakala kebimbangan adalah disebabkan oleh tahap *neuroticisme* yang tinggi dengan ciri-ciri tipikal, termasuk cepat marah, ketidakstabilan emosi dan ketidaksabaran. Sebagai contoh, kebimbangan dijana apabila berhadapan dengan cabaran penting di tempat kerja seperti sebelum menduduki ujian atau sebelum melakukan keputusan penting. Walau bagaimanapun, individu yang mengalami gangguan kecemasan akan menunjukkan tahap kebimbangan yang berterusan dan luar biasa.

Sprung dan Rogers (2019) menggunakan pendekatan keratan rentas untuk menggambarkan hubungan antara keseimbangan kerja dan kehidupan, tekanan, kebimbangan dan kemurungan yang dialami dalam kalangan 111 mahasiswa di Midwestern. Kajian ini bertujuan untuk menemui kesan negatif ketidakseimbangan kehidupan kerja terhadap kebimbangan dan kemurungan pelajar. Keputusan menunjukkan bahawa perkaitan negatif antara keseimbangan kerja dan kehidupan dengan kemurungan telah dimediasi dengan ketara oleh tekanan yang dirasakan. Oleh itu, kajian tersebut mencadangkan bahawa untuk mencapai keseimbangan antara kerja dan kehidupan adalah penting untuk kesihatan mental pelajar untuk meningkatkan proses pembelajaran mereka. Secara praktikal, Sprung dan Rogers (2019) mencadangkan institusi pendidikan harus mengutamakan keseimbangan kerja dan kehidupan pelajar untuk meningkatkan pencapaian akademik mereka sambil melindungi mereka daripada gangguan mental.

Meenu et al. (2016) mengkaji kesan negatif tekanan kerja terhadap keseimbangan kerja dan kehidupan dengan melihat kepentingan keseimbangan optimum antara kehidupan peribadi dan profesional yang menyokong pertumbuhan organisasi dan pekerja. Kajian tersebut merumuskan bahawa kesan keseimbangan kerja dan kehidupan adalah berbeza terhadap kepuasan kerja dan pembangunan profesional sambil mengurangkan tidakhadiran, pusing

ganti, dan tekanan kerja. Kajian ini mendapati keseimbangan kerja dan kehidupan yang optimum akan meningkatkan produktiviti tenaga kerja dengan ketara.

Tariq et al. (2012) menilai dan menjelaskan lima model keseimbangan kerja dan kehidupan, iaitu Model Segmentasi, Model *Spillover*, Model Pampasan, Model Instrumental, dan Model Konflik, yang dibangunkan oleh Guest (2001). Secara khusus, Model Segmentasi mencadangkan sempadan tersendiri antara kerja dan keluarga yang tidak jelas secara fizikal kerana sempadan itu diwujudkan secara psikologi oleh individu untuk mengambil kira situasi bertindih antara kerja dan kehidupan peribadi. Model *Spillover* menjelaskan bahawa kedua-dua kerja dan keluarga sentiasa mempengaruhi satu sama lain, sama ada secara positif atau negatif, yang memerlukan budi bicara untuk mengelakkan kesan negatif daripada satu domain ke domain yang lain. Sementara itu, model pampasan menyatakan bahawa keseimbangan kerja dan kehidupan dicapai dengan membenarkan domain tertentu untuk mengimbangi bidang yang tidak lengkap sama ada dalam kerja atau kehidupan peribadi, manakala Model Instrumental menyatakan bahawa aktiviti dalam domain tertentu boleh menghasilkan kemajuan yang ketara dalam domain lain, yang menonjolkan aspek konstruktif.

Oleh itu, kajian ini akan menguji perkaitan antara pemboleh ubah kemurungan, kebimbangan, tekanan dengan keseimbangan kerja-kehidupan melalui hipotesis berikut:

- H₅: Terdapat hubungan yang signifikan antara kebimbangan dengan keseimbangan kerja dan kehidupan.
- H₆: Terdapat hubungan yang signifikan antara kemurungan dengan keseimbangan kerja dan kehidupan.
- H₇: Terdapat hubungan yang signifikan antara tekanan dengan keseimbangan kerja dan kehidupan.

Konsep dan Teori

Emosi melibatkan reaksi dalaman dan luaran terhadap situasi tertentu yang akan mempengaruhi dimensi psikologi, kognitif, motivasi dan pengalaman (Salovey & Mayer, 1990). Oleh itu, keadaan tertentu boleh mencetuskan sama ada tindak balas positif atau negatif, yang seterusnya mempengaruhi individu dalam proses pemikiran, tindakan, perasaan dan tingkah laku peribadi (Weinzimmer & Esken, 2017). Gardner (1993) mencadangkan Teori Kecerdasan Pelbagai, yang mengklasifikasikan pelbagai bentuk kecerdasan kepada linguistik, logik-matematik, *spatial*, muzik, *naturalist*, kinestetik badan, intrapersonal dan interpersonal. Kecerdasan intrapersonal adalah berkaitan dengan keupayaan individu untuk memahami keadaan emosi, perasaan, dan motivasi peribadi melalui refleksi dan analisis sendiri. Sementara itu, kecerdasan interpersonal ialah keupayaan untuk mengesan dan memahami emosi, keinginan, motif dan matlamat individu lain (Gardner, 1993). Menurut Weinzimmer dan Esken (2017), kecerdasan intrapersonal dan interpersonal adalah penting dalam mencapai keseimbangan optimum antara kerja dan kehidupan.

Kajian terdahulu mendedahkan bahawa individu yang mempunyai kecerdasan emosi yang sesuai akan lebih cekap mengendalikan tanggungjawab kerja dan keluarga tanpa mengalami *burnout* atau tekanan yang berlebihan (Carmeli, 2003; Lenaghan et al., 2007). Wilensky (1968) juga mendapati bahawa kecerdasan emosi yang rendah akan membenarkan ketidakpuasan kerja yang boleh memberi kesan negatif kepada keluarga peribadi, seperti yang dicadangkan dalam Model *Spillover*. Begitu juga, Near et al. (1980) mendedahkan bahawa mentaliti individu boleh

mempengaruhi tingkah laku peribadi dalam keadaan yang berbeza, seperti di luar persekitaran kerja dan sebaliknya. Sehubungan itu, pekerja yang mempunyai sentimen positif yang berpengalaman di tempat kerja mungkin menunjukkan emosi yang sama di rumah dan sebaliknya serta pada masa yang sama akan menyumbang kepada kualiti kerja dan kehidupan yang lebih tinggi (Weinzimmer & Esken, 2017). Oleh itu, untuk mencapai keseimbangan kerja dan kehidupan seperti yang dicadangkan dalam Teori *Spillover*, kecerdasan emosi adalah komponen penting untuk menyesuaikan emosi peribadi di tempat kerja dan kehidupan peribadi untuk mengelakkan kesan limpahan negatif dari satu persekitaran ke persekitaran yang lain (Weinzimmer & Esken, 2017).

Metodologi Kajian

Prosedur Persampelan

Seramai 995 responden telah dipilih dari kalangan anggota tentera darat di seluruh Malaysia menggunakan kaedah kuantitatif. Persampelan rawak mudah digunakan untuk memilih sampel yang bersesuaian mengikut prosedur yang telah ditetapkan. Sebanyak 1400 set soal selidik telah diedarkan ke seluruh rejimen dan markas tentera di seluruh Malaysia melalui bantuan pengawai yang ditugaskan dari Kementerian Pertahanan Malaysia. Kadar maklumbalas daripada hasil pengedaran soal selidik tersebut adalah sebanyak 71.1% iaitu 995 set soal selidik telah dikembalikan semula.

Instrumen Kajian

Instrumen pengukuran bagi pemboleh ubah kecerdasan emosi yang digunakan dalam kajian ini adalah soal selidik yang dibangunkan oleh Wong dan Law (2002) yang dikenali sebagai *Wong and Law Emotional Intelligence Scale* (WLEIS). Soal selidik WLEIS mengandungi 16 item yang dibahagikan kepada empat dimensi iaitu mengenal emosi orang lain (OEA), mengawal emosi diri (ROE), menggunakan emosi (UOE) dan menilai emosi diri (SEA). Nilai kebolehpercayaan instrumen ini adalah tinggi iaitu nilai alpha (α) Cronbach sebanyak 0.947.

Manakala pengukuran bagi pemboleh ubah kemurungan, kebimbangan dan tekanan pula, kajian ini menggunakan set soal selidik *Depression Anxiety Stress Scales* (DASS-21) yang dibina oleh Lovibond and Lovibond (1995) dan diadaptasikan dalam versi Bahasa Melayu oleh Rani et al., (2018). Instrumen ini mengandungi 21 item pengukuran dengan nilai kebolehpercayaan yang memuaskan ($\alpha = 0.882$). Bagi pemboleh ubah keseimbangan kerja dan kehidupan pula, pengukuran yang digunakan adalah diambil dari kajian lepas yang pernah menggunakan instrumen ini iaitu Omar (2013). Nilai kebolehpercayaan bagi instrumen ini adalah tinggi iaitu $\alpha = 0.945$.

Ketiga-tiga instrumen kajian ini diukur menggunakan skala Likert 5 mata iaitu 1 sebagai "Sangat Tidak Setuju" hingga 5 sebagai "Sangat Setuju". Data yang dikumpul kemudiannya dianalisis dengan melakukan teknik inferensi iaitu Pemodelan Persamaan Struktur (SEM) melalui *Partial Least Squares* (PLS).

Keputusan dan Perbincangan

Responden

Pengumpulan data telah dijalankan di tujuh markas tentera darat seluruh Malaysia iaitu sebanyak 1,400 set soal selidik telah diedarkan anggota tentera yang terpilih. Sebanyak 995 borang soal selidik yang lengkap telah berjaya dikumpulkan dengan kadar maklum balas adalah 71.1%.

Hasil dapatan kajian mendapati daripada jumlah 995 responden yang menjawab borang soal selidik seramai 913 responden adalah lelaki (91.8%) dan selebihnya adalah wanita (82: 8.2%). Dari segi umur majoriti responden adalah berumur antara 21 dan 30 tahun (43.9%), diikuti antara 31 dan 40 tahun (42.4%). Majoriti responden berbangsa Melayu (808: 81.2%) dan beragama Islam (867: 87.1%). Responden yang sudah berkahwin seramai 665 orang (66.8%), bujang (317: 31.9%) dan bercerai (13: 1.3%). Separuh daripada responden kajian mempunyai kelulusan tertinggi di peringkat Sijil Pelajaran Malaysia (511: 51.4%) manakala selebihnya adalah Ijazah (260: 26.1%), Penilaian Menengah Rendah (81: 8.1%), Sijil Tinggi Pelajaran Malaysia (76: 7.6%) dan di peringkat Sarjana / PhD (67: 6.7%). Manakala taburan bagi pangkat dalam kalangan responden adalah Lans Koperal-Koperal (304: 30.6%), Perajurit Muda (200: 30.6%), Lefternan-Kapten (197:19.8%), Mejar (155: 15.6%), Sarjan-Pegawai Waran (116: 11.7%) dan Lefternan Kolonel-Jeneral (23: 2.3%). Majoriti responden mempunyai pengalaman dalam perkhidmatan ketenteraan selama 11-20 tahun (409: 41.1%) dan berpendapatan di bawah RM3000 (472: 47.4%).

Pengukuran Model

Data yang dikumpulkan telah dikelaskan mengikut prosedur PLS-SEM dalam perisian SmartPLS versi 3.0 untuk menilai model pengukuran semasa (*outer*) dan struktur (*inner*) (Henseler et al., 2009; Ringle et al., 2015). Jadual 1 menunjukkan keputusan semua item soal selidik yang telah mematuhi nilai CR dan alpha Cronbach dan boleh diterima iaitu melebihi 0.70 (Fornell & Larcker, 1981; Nunnally & Bernstein, 1994). Berdasarkan nilai *Average Variance Extracted* (AVE) yang ditunjukkan dalam Jadual 1 bagi setiap konstruk menunjukkan kesahan diskriminasi juga mencukupi.

Jadual 1. Kebolehpercayaan, Kesahan Convergent dan Kesahan Discriminant

| | AV E | CR | α | Kebimba ngan | Kemuru ngan | OE A | RO E | SE A | Teka nan | UO E | W LB |
|-----------------|---------|-------|----------|-----------------|----------------|--------------|--------------|--------------|--------------|--------------|---------|
| Kebimban | 0.602 | 0.900 | 0.867 | 0.776 | | | | | | | |
| Kemuru | 0.670 | 0.924 | 0.901 | 0.701 | 0.818 | | | | | | |
| OEA | 0.673 | 0.860 | 0.758 | - 0.141 | - 0.173 | 0.820 | | | | | |
| ROE | 0.659 | 0.885 | 0.828 | - 0.218 | - 0.266 | 0.534 | 0.812 | | | | |
| SEA | 0.683 | 0.866 | 0.768 | - 0.208 | - 0.244 | 0.539 | 0.703 | 0.826 | | | |
| Tekanan | 0.647 | 0.901 | 0.863 | 0.725 | 0.786 | - 0.151 | - 0.285 | - 0.199 | 0.804 | | |
| UOE | 0.605 | 0.859 | 0.782 | - 0.247 | - 0.300 | 0.605 | 0.670 | 0.708 | - 0.254 | 0.778 | |

| | | | | | | | | | | | |
|------------|-----------|-----------|-----------|---------|---------|-----------|-----------|-----------|------------|-----------|-------------------|
| WLB | 0.7 53 | 0.9 55 | 0.9 45 | - 0.256 | - 0.334 | 0.3 78 | 0.4 24 | 0.4 05 | - 0.323 | 0.4 72 | 0.8 68 |
|------------|-----------|-----------|-----------|---------|---------|-----------|-----------|-----------|------------|-----------|-------------------|

Nota. OEA = mengenal emosi orang lain; ROE = mengawal emosi diri; SEA = menilai emosi diri; UOE = menggunakan emosi, WLB = keseimbangan kerja dan kehidupan.

Pemodelan Persamaan Struktur

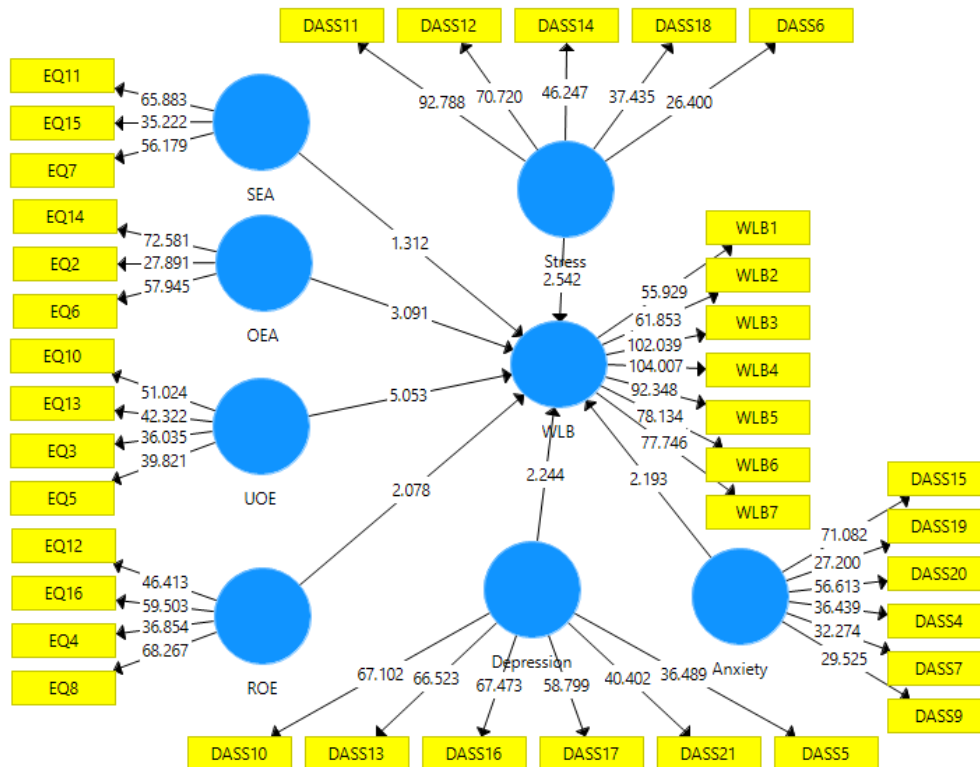
Jadual 2 dan Rajah 1 menerangkan keputusan analisis struktur model bagi pemboleh ubah yang menguji hipotesis kajian ini. Dapatan kajian menunjukkan terdapat hubungan yang signifikan di antara pemboleh ubah OEA ($\beta = 0.097$, nilai- $t = 3.091$), ROE ($\beta = 0.063$, nilai- $t = 2.078$), UOE ($\beta = 0.193$, nilai- $t = 5.053$), kebimbangan ($\beta = 0.146$, nilai- $t = 2.193$), kemurungan ($\beta = -0.157$, nilai- $t = 2.244$) dan tekanan ($\beta = -0.116$, nilai- $t = 2.542$) dengan keseimbangan kerja dan kehidupan (WLB). Berdasarkan keputusan ini analisis H₁, H₂, H₃, H₄, H₅, dan H₆ adalah menyokong hipotesis kajian ini. Walau bagaimanapun, pengujian hipotesis H₇ iaitu hubungan antara SEA dengan WLB tidak mempunyai hubungan signifikan dan menolak hipotesis kajian.

Jadual 2. Analisis Struktur Model

| N o. | Hubungan | Path Coefficient (β) | Nilai i-t | Nilai i-p | Aras Signifikan | Keputusan | R ² |
|----------------|----------------------|---------------------------------|--------------|--------------|--------------------|-------------------|----------------|
| H ₁ | Kebimbangan → WLB | - 0.146 | 2.19 3 | 0.02 8 | * | Disokong | |
| H ₂ | Kemurungan → WLB | - 0.157 | 2.24 4 | 0.02 5 | * | Disokong | |
| H ₃ | Tekanan → WLB | - 0.116 | 2.54 2 | 0.01 1 | * | Disokong | |
| H ₄ | OEA → WLB | 0.097 | 3.09 1 | 0.00 2 | * | Disokong | 0.2 97 |
| H ₅ | ROE → WLB | 0.063 | 2.07 8 | 0.03 8 | * | Disokong | |
| H ₆ | UOE → WLB | 0.193 | 5.05 3 | 0.00 0 | *** | Disokong | |
| H ₇ | SEA → WLB | 0.232 | 1.31 2 | 0.19 0 | T.S. | Tidak Disokong | |

Nota. *** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$; T.S. = Tidak Signifikan $p > 0.05$.

OEA = mengenal emosi orang lain; ROE = mengawal emosi diri; SEA = menilai emosi diri; UOE = menggunakan emosi, WLB = keseimbangan kerja dan kehidupan.



Rajah 1. Struktur Model Kecerdasan Emosi, Kebimbangan, Kemurungan dan Tekanan dengan Keseimbangan Kerja dan Kehidupan

Kesimpulan

Berdasarkan dapatan keputusan kajian ini menunjukkan dimensi kecerdasan emosi (OEA, ROE dan UOE) mempunyai hubungan signifikan yang positif dengan keseimbangan kerja dan kehidupan di mana tahap OEA, ROE dan UOE yang lebih tinggi akan juga menghasilkan tahap keseimbangan kerja dan kehidupan yang lebih tinggi dalam kalangan anggota tentera. Walaupun begitu, tiada hubungan yang signifikan ditemui antara SEA dan keseimbangan kerja dan kehidupan di mana dimensi SEA tidak mempengaruhi tahap keseimbangan kerja dan kehidupan di kalangan anggota tentera.

Manakala hubungan antara kebimbangan, kemurungan dan tekanan didapati mempunyai hubungan signifikan negatif dengan keseimbangan kerja dan kehidupan menunjukkan semakin tinggi tahap kebimbangan, kemurungan dan tekanan dalam kalangan pekerja akan menyebabkan tahap keseimbangan kerja dan kehidupan akan semakin merosot atau sebaliknya.

Kajian ini telah membuktikan bahawa terdapat pengaruh yang signifikan antara kecerdasan emosi, kemurungan, kebimbangan, dan tekanan terhadap keseimbangan kerja dan kehidupan dalam kalangan anggota tentera. Secara praktikal, kajian ini mendedahkan peluang penting bagi pihak atasan angkatan Tentera Darat Malaysia untuk mengenal pasti amalan yang boleh memastikan keseimbangan optimum antara kerja dan keluarga. Terutamanya, penglibatan diri dalam kumpulan positif akan kondusif untuk memperoleh tahap kecerdasan emosi yang tinggi sambil menyelesaikan isu kemurungan, kebimbangan dan tekanan yang berterusan. Begitu

juga, kajian ini boleh menjadi panduan untuk penambahbaikan dalam mengukuhkan elemen keseimbangan kerja dan kehidupan anggota tentera.

Kajian ini juga dapat menyumbang kepada pengetahuan sedia ada sebagai sumber rujukan untuk ahli akademik masa depan. Kajian ini juga dapat mengisi lompong empirikal semasa berkaitan dengan kajian tingkah laku organisasi dari sudut kecerdasan emosi, kemurungan, kebimbangan dan tekanan dan keseimbangan kerja dan kehidupan yang kurang diberi tumpuan sebelum ini dalam konteks organisasi ketenteraan.

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PENERAPAN ELEMEN PEMBELAJARAN VARK DALAM TEKNIK PEMBELAJARAN DAN HAFAZAN AL-QURAN DI MALAYSIA: TINJAUAN AWAL

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Abstrak: *Pengajian tahfiz kini menjadi pilihan ibu bapa bagi anak-anak mereka mendapatkan pendidikan. Kesedaran umat Islam mengenai kelebihan dan kebaikan yang diperolehi dari hafazan al-Quran mendorong ibu bapa untuk menempatkan anak-anak mereka ke sekolah-sekolah atau pusat-pusat tahfiz. Walau bagaimanapun mengambil aliran atau pengajian tahfiz tidak semudah yang disangkakan kerana proses penghafazan al-Quran memerlukan penumpuan dan disiplin yang tinggi. Lantaran itu, tidak sedikit pelajar tahfiz yang gagal menamatkan hafazan al-Quran mengikut tempoh yang telah ditetapkan. Justeru itu, pemilihan metod dan gaya pembelajaran pelajar sangat penting bagi memastikan proses menghafaz al-Quran dapat dilaksanakan dengan baik dan berkesan. Strategi pembelajaran yang bersesuaian dengan gaya pembelajaran pelajar boleh meningkatkan motivasi dan pencapaian prestasi pelajar. Strategi pembelajaran VARK misalnya terbukti dapat meningkatkan penguasaan pelajar terhadap sesuatu pelajaran termasuk dalam menghafaz ayat-ayat al-Quran. Justeru itu, kertas kerja ini cuba mengenal pasti elemen pembelajaran VARK dalam teknik pembelajaran dan hafazan al-Quran di pusat-pusat atau sekolah-sekolah tahfiz di Malaysia berdasarkan kepada kajian-kajian lepas. Kajian ini penting bagi mendedahkan teknik pembelajaran dan hafazan yang paling dominan/banyak dan paling kurang digunakan oleh pusat-pusat atau sekolah-sekolah tahfiz berdasarkan model pembelajaran VARK. Maklumat ini sangat penting bagi membolehkan tenaga pengajar menerapkan pelbagai metod pembelajaran dan hafazan yang bersesuaian yang menggabungkan pelbagai mod gaya pembelajaran pelajar bagi meningkatkan keupayaan dan prestasi pelajar dalam menghafaz al-Quran.*

Keywords: *Pembelajaran VARK, Teknik Hafazan, Al-Quran, Malaysia*

Pengenalan

Al-Quran merupakan mukjizat dan wahyu dari Allah yang kekal relevan di setiap masa dan di setiap zaman. Isi kandungan al-Quran yang terdiri daripada 114 surah dan dibahagikan dengan 30 juzuk merangkumi setiap aspek kehidupan insan. Jika diteliti, terdapat aspek sejarah, kekeluargaan, politik, ekonomi, sosial, sains pada abad ke -21 ini, institusi yang menawarkan pembelajaran tahfiz di Malaysia, tumbuh dengan pesatnya Institusi tahfiz ini dikelolakan sama ada di bawah kerajaan pusat, negeri atau secara persendirian. Jabatan Kemajuan Islam Malaysia merekodkan 612 pusat tahfiz di seluruh negara yang didaftarkan menerusi jabatan

agama Islam negeri-negeri dan dianggarkan terdapat kira-kira 400 buah lagi institusi tahfiz yang tidak berdaftar (Hamdan Ismail, 2017).

Ramai ibubapa kini memilih untuk menghantar anak-anak mereka ke pusat-pusat tahfiz kerana manfaat yang diperolehi dari hafazan al-Quran. Manfaat ini tidak hanya dinilai dari sudut agama bahkan dari segi akademik. Individu yang menguasai hafazan al-Quran dikatakan mempunyai pencapaian akademik yang lebih baik (Muhaidi Mustaffa, Yusof Muhammad Fathi, Mohd Al'Ikhsan Ghazali, & Siti Salwa Md Sawari, 2016; Nawaz & Jahangir, 2015). Hal ini disebabkan proses penghafalan al-Quran memerlukan penumpuan dan disiplin yang tinggi. Seorang hafiz Quran perlu melalui tiga peringkat hafazan iaitu menghafaz ayat-ayat baru (Hifz jadid), peringkat mengulang-ulang hafazan lepas (Sabaq) dan peringkat mengekalkan hafazan yang sedia ada (Muraj'ah/T'adah) (Abdul Hafiz, Ajmain, Ismail, Azhar, & Idris 2000). Usaha seseorang individu dalam proses penghafazan akan lebih mudah jika setiap peringkat ini dapat dikuasai.

Pemilihan metod dan gaya pembelajaran pelajar sangat penting bagi memastikan proses menghafal al-Quran dapat dilaksanakan dengan lancar dan berkesan. Tenaga pengajar seharusnya memberi pendedahan kepada para pelajar mengenai metod-metod penghafazan yang terkini dan lebih berkesan. Tidak hanya berdasarkan kepada pengalaman mereka semata-mata. Kerana pelajar berkemungkinan tidak dapat mengikuti teknik penghafazan yang diajarkan secara sempurna. Hal sedemikian boleh mengakibatkan pelajar menemui jalan buntu ketika menghafaz. Dalam kaitan ini, Azmil & Misnan (2014) mengatakan strategi pembelajaran yang bersesuaian dengan gaya pembelajaran pelajar boleh meningkatkan motivasi dan pencapaian prestasi pelajar. Misalnya strategi pembelajaran VARK terbukti dapat meningkatkan penguasaan pelajar terhadap sesuatu pelajaran ini termasuklah pelajaran-pelajaran dalam bidang pendidikan Islam, Quran dan Hadis (Yeni Kurnia (2015). Bahkan Nor Musliza et.al 2018 dalam kajiannya di salah sebuah Pusat Tahfiz di Malaysia mendapati pelajar-pelajar cenderung menerapkan gaya pembelajaran VARK semasa proses penghafalan al-Quran. dan pelajar yang menerapkan gaya pembelajaran dominan dapat meningkatkan prestasi hafazan al-Quran (Nor Musliza et.al 2016) Justeru itu, kajian ini cuba untuk mengenal pasti penerapan elemen VARK dalam proses pembelajaran dan hafalan al-Quran sedia ada yang telah dipraktikkan di Malaysia.

Kajian Lepas

Kajian-kajian lepas telah memperlihatkan keupayaan Strategi VAK dalam pembelajaran dapat meningkatkan penguasaan pelajar terhadap sesuatu pelajaran. Strategi pembelajaran yang memberi pengalaman secara langsung kepada pelajar dan mengambil kira kecenderungan gaya belajar pelajar dapat memotivasikan pelajar untuk terus mengikuti pembelajaran. Ini termasuk pembelajaran melibatkan subjek-subjek agama. Penerapan model pembelajaran VAK dalam pembelajaran al-Quran dan hadis misalnya telah berjaya meningkatkan penguasaan pelajar terhadap subjek tersebut (Yeni Kurnia (2015). Penerapan strategi VAK juga berkesan dalam meningkatkan kebolehan menterjemah al-Quran bagi pelajar-pelajar yang bermasalah dalam pembelajaran (Zulmeyetri, 2023). Tidak hanya itu, penerapan strategi VAK dalam pembelajaran juga menghasilkan inovasi dalam pembelajaran al-Quran yang efektif dan menyeronokkan serta memberi impak positif dalam proses hafalan terutama kepada kanak-kanak pra sekolah (Mohd Zin et.al, 2021). Pelajar yang menggunakan gaya pembelajaran dominan semasa proses menghafaz al-Quran dapat meningkatkan prestasi hafazan Quran (Nor Musliza et.al 2016). Hal yang demikian menunjukkan penerapan strategi VAK tidak hanya

memberi pengaruh positif terhadap penguasaan dan prestasi pelajar dalam pembelajaran bahkan dalam proses menghafaz al-Quran.

Sehubungan itu, strategi pembelajaran VARK ini dijadikan asas dalam membangunkan modul pendidikan tahfiz (Ahmad Bazli et,al 2017) dan dalam mereka bentuk aplikasi pembelajaran hafazan al-Quran (Nor Musliza et,al). Dapatan kajian Nor Musliza et,al 2018 mendapati pelajar-pelajar tahfiz ada kecenderungan menerapkan gaya pembelajaran VARK melalui amalan dan teknik hafalan yang berbeza-beza semasa proses penghafalan al-Quran. Teknik hafalan al-Quran (Per kata) didapati mempunyai persamaan dengan gaya pembelajaran VARK kerana melibatkan penggunaan pelbagai deria.

Gaya Pembelajaran Vark

Gaya pembelajaran adalah satu konsep yang digunapakai dalam psikologi dan pendidikan. Duff (2000) menyatakan bahawa gaya pembelajaran bertujuan untuk mengenal pasti cara mempelajari sesuatu topik dengan lebih berkesan dengan mengambilkira faktor kognitif, afektif dan psikologi. Menurut Norasmah dan Hasril (2010), salah satu model gaya pembelajaran yang sering digunakan dalam pengajaran dan pembelajaran adalah model VARK (diubah suai daripada model VAK). Model VARK yang dibangunkan oleh Neil D. Fleming 1987 merupakan gaya pembelajaran yang menekankan pengalaman dan penyesuaian gaya pembelajaran berdasarkan kemampuan pelajar. Model VARK merupakan salah satu konsep pembelajaran yang membahagikan cara pembelajaran pelajar kepada empat klasifikasi berbeza iaitu visual, auditori, membaca/menulis, dan kinestetik.

Fleming (2006) telah menerangkan empat klasifikasi cara pembelajaran pelajar berdasarkan deria yang berbeza seperti berikut:

1. Pelajar dalam klasifikasi visual cenderung untuk memahami pembelajaran melalui mentafsir carta, rajah graf dan gambar.
2. Pelajar dalam klasifikasi auditori (aural) cenderung untuk mendapatkan input melalui perbincangan dan mendengar.
3. Pelajar dalam klasifikasi membaca/menulis cenderung untuk menerima dan mentafsir maklumat bercetak.
4. Pelajar dalam klasifikasi kinestetik cenderung untuk memahami pembelajaran berdasarkan tingkah laku seperti sentuhan, rasa, lihat, dan dengar.

Berdasarkan penerangan klasifikasi tersebut, dapat dilihat bahawa model VARK dapat digunakan membantu pelajar dengan keupayaan pemahaman dan penerimaan yang berbeza untuk pembelajaran yang lebih produktif. Gaya pembelajaran berasaskan model VARK juga dapat memberikan peluang kepada pelajar untuk meneroka pengetahuan sendiri mengikut keupayaan masing – masing yang mana dapat meningkatkan kefahaman dan keseronokan dalam kalangan pelajar (Murphy et. al, 2004). Norasmah dan Hasril (2010) dalam kajian mereka telah menghuraikan gaya pembelajaran model VARK dengan lebih terperinci.

Mod Visual

Dalam gaya pembelajaran visual, pelajar cenderung kepada melihat sesuatu warna, gambar, jadual, gambarajah, carta sama ada di dalam buku di papan hitam atau paparan komputer. Murphy et al (2004) dalam Norasmah dan Hasril menambah bahawa pelajar visual juga cenderung menggunakan alat simbolik seperti graf, carta alir, hierarki, model, dan anak panah

yang mewakili maklumat bercetak dalam pembelajaran mereka dan mereka dapat membuat penerangan mengenai sesuatu konsep kepada orang lain melalui gambar atau lukisan. Pelajar biasanya dapat menerima proses pembelajaran melalui penerangan dan demonstrasi; mereka gemar menggunakan senarai untuk menyusun idea dan maklumat yang dipelajari (Norasmah dan Hasril, 2010). Oleh itu, Piping (2005) menyatakan bahawa pelajar yang mempunyai kecerdasan visual dalam menggunakan gambar, ilustrasi dan model biasanya cenderung untuk menjadi lebih kreatif dan imaginatif. Drago dan Wagner (2004) dalam Norasmah dan Hasril turut menyatakan bahawa kebiasaannya suara atau bunyi bising tidak mengganggu penerimaan pelajar dalam kategori ini, walaubagaimanapun, pergerakan dan perbuatan asing boleh menyebabkan mereka berubah atau hilang fokus.

Mod Auditori (Aural)

Dalam gaya pembelajaran auditori (aural), pelajar cenderung belajar melalui mendengar seperti bunyi, muzik, nada, irama, suara, arahan atau penerangan secara lisan. Hal ini kerana mereka lebih mudah untuk mempelajari sesuatu dengan mendengar (Drago & Wagner 2004). Menurut Norasmah dan Hasril (2010) pelajar ini lebih suka mendengar daripada menulis nota; mereka akan memberikan tumpuan sepenuhnya maklumat berbentuk audio semasa sesi pengajaran dan pembelajaran. Selain itu, mereka selalunya akan membincangkan topik yang telah dipelajari untuk menjelaskan pemahaman mereka. Miller (2001) dalam Norasmah dan Hasril (2010) menerangkan bahawa pelajar dalam mod auditori boleh mengingat maklumat melalui bacaan atau mulut yang kuat apabila membaca, terutamanya apabila mempelajari sesuatu yang baru; mereka juga dapat mengingat maklumat dengan mendengar semula rakaman pita audio, mengajar orang lain atau berbincang dengan guru. Pelajar aural biasanya mempunyai perbendaharaan kata yang luas, boleh menulis cerita, puisi atau surat dengan baik, dapat mengeja dengan lancar belajar bahasa asing dengan mudah, dan memiliki kebolehan yang kuat dalam mengingat maklumat (Armstrong, 2004). Walaubagaimanapun, Drago dan Wagner (2004) dalam Norasmah dan Hasril menyatakan bahawa bunyi bising mudah mengganggu perhatian dan tumpuan pelajar dalam kategori auditori (aural).

Mod Membaca/Menulis

Pelajar yang mempunyai kecenderungan membaca/menulis lebih suka mendapatkan maklumat dalam bentuk teks yang mengandungi perkataan, ayat, perenggan atau wacana. Norasmah dan Hasril (2010) menerangkan bahawa pelajar ini berkeupayaan menggunakan perkataan dan teks bercetak sebagai kaedah untuk mendapatkan maklumat; mereka akan menyusun senarai, glosari, buku teks, nota kuliah atau edaran. Murphy et al. (2004) turut menambah bahawa pelajar mod ini biasanya akan menyusun nota ke dalam bentuk lakaran, menulis semula nota kepada ringkasan dan mengulangkaji soalan peperiksaan aneka pilihan Dalam erti kata lain, pelajar dalam mod membaca/menulis selalunya akan belajar dengan lebih baik dengan membaca maklumat yang ingin difahami lalu menulis atau mencatat semula maklumat tersebut dalam bentuk nota padat dan ringkas.

Mod Kinestetik

Pelajar dalam mod kinestetik pula cenderung belajar dengan baik melalui pengalaman dan mengambil bahagian secara praktikal dalam aktiviti pembelajaran seperti gerakan, tanggapan emosi, tindakan fizikal dan emosi. Norasmah dan Hasril (2010) menyatakan bahawa mod kinestetik melibatkan gabungan pelbagai fungsi deria dalam proses pembelajaran melalui

pengalaman dan amalan. Dalam pada itu, Drago and Wagner (2004) dalam Norasmah dan Hasril menerangkan bahawa pelajar yang memiliki kecerdasan kinestetik selalunya aktif, lebih gemar bergerak dan menggunakan sentuhan, pergerakan, dan interaksi dengan persekitaran mereka.

Oleh itu, adalah mudah bagi mereka mempelajari kemahiran fizikal, berfikir/mengingat sesuatu topik sambil bergerak, berprestasi baik dalam bidang sukan tertentu serta mempunyai koordinasi dan kebolehan yang tinggi tentang tempo (Armstrong, 2004). Gaya pembelajaran VARK memberikan peluang kepada pelajar untuk belajar secara bebas dan kreatif mengikut kemampuan dan kecenderungan masing-masing bagi mencapai pemahaman dan pembelajaran yang lebih efektif. Ini kerana pembelajaran menggunakan model gaya pembelajaran VARK melibatkan dan mengaktifkan pacaindera penglihatan, pendengaran dan pergerakan. Piping (2005) dalam Norasmah dan Hasril (2010) juga telah membuktikan bahawa gaya pembelajaran VARK dapat meningkatkan kefahaman serta menimbulkan motivasi dan minat belajar dalam kalangan pelajar. Pelajar dapat mempraktikkan pengalamannya secara langsung sehingga pelajar lebih mengingat dan memahami apa yang dilihat, didengar dan dilakukannya. Ini menyebabkan hasil pembelajaran lebih baik dan mampu dicapai berbanding dengan pelajar yang menggunakan pembelajaran secara konvensional (Nor Musliza & Mokmin Basri, 2016).

Metodologi

Kajian ini menggunakan pendekatan kualitatif sepenuhnya. Dengan menganalisis kajian-kajian lepas berkaitan strategi, kaedah dan teknik pembelajaran dan penghafazan al-Quran yang dipraktikkan di Malaysia. Bagi mengenal pasti sejauh mana elemen VARK ini diterapkan dalam proses pembelajaran dan penghafazan al-Quran.

Hasil Dapatan

Kaedah Dan Teknik Hafazan Al-Quran Di Malaysia

Perkembangan kemunculan pengajian tahfiz di negeri-negeri dalam Malaysia kian bercambah sama ada di bawah sekolah swasta atau sekolah rakyat. Setiap institusi pengajian tahfiz ini bebas menggunakan kurikulum dan kaedah pengajaran dari negara luar berdasarkan latar belakang pendidikan tenaga pengajar berkenaan (Aznil et al., 2014). Terdapat pelbagai kaedah dan teknik hafazan yang diperkenalkan bertujuan untuk mengukuhkan hafazan mengikut kesesuaian dan tahap pelajar. Aspek pengetahuan, pengalaman dan amalan pedagogi dalam kalangan tenaga pengajar membawa kepada kepelbagaian kaedah dan teknik pengajaran dan pembelajaran tahfiz. Antara kaedah pembelajaran dan hafazan yang digunakan ialah;

1. Kaedah Tahfiz Akhyar untuk komuniti Orang Kelainan Upaya (OKU) khususnya komuniti pekak untuk menghafaz al-Quran. Teknik hafazan dalam Kaedah Akhyar ini memperkenalkan kaedah memvisualisasikan ayat hafazan dalam bentuk permainan *puzzle*. Pelajar diminta untuk menyusun potongan kalimah atau ayat daripada surah yang dihafal mengikut turutan yang betul. Selain itu, kaedah Tahfiz Akhyar ini menekankan pembelajaran secara visual dengan menggunakan imej visual interaktif serta imej-imej pegun dan visual bergerak (Siti Ramna & Nurul Asiah Fasehah, 2021).

2. Kaedah Hafazan yang diterapkan di Sekolah Menengah/ Maahad Hafiz Jeram (Banat). Pelajar diwajibkan menghafaz bermula dari juzuk 30 kemudian barulah juzuk 1 iaitu sebanyak 6 juzuk setahun. Sebelum pelajar memperdengarkan hafazan kepada guru, pihak tahfiz telah

menyediakan beberapa teknik hafazan yang perlu mereka ikuti iaitu perlu membawa mushaf sendiri, buku rekod hafazan dan mushaf tahriri. Melalui mushaf tahriri ini, pelajar perlu menyalin semula ayat al-Quran dengan menggunakan tulisan tangan iaitu mengikut muka surat yang mereka ingin tasmik iaitu ayat dalam hafazan baharu pelajar (Abd. Aziz et al., 2021).

3. Kaedah Hafazan Moden al-Bahgdadi yang digunakan di Al-Bahgdadi Learning Centre (ALC) merupakan cetusan idea Ustaz Jalaluddin al-Bahgdadi. Antara teknik hafazan Nadi al-Bahgdadi ini ialah pelajar diperdengarkan bacaan ustaz sebanyak 3 kali sambil melihat dan merujuk bahan khas yang diberikan. Kemudian pelajar akan mengikut semula bacaan tersebut sebanyak 3 kali. Setelah itu, pelajar akan mengulang semula bacaan tersebut secara berkumpulan sebanyak 3 kali. Di samping itu juga, kaedah ini menggunakan bahan bantuan belajar berwarna, bergambar dan peta minda terutamanya dalam kalangan hafiz kanak-kanak (Mohd Ikram et al., 2019).

4. Kolej Permata Insan menggunakan pendekatan kaedah hafazan Luh daripada Mekah iaitu menghafaz mengikut tema tertentu bagi surah-surah yang panjang. Modul pendidikan hafazan al-Quran di kolej ini dilaksanakan mengikut proses tertentu. Pada awalnya pelajar diminta untuk menyemak ketepatan bacaan beserta tajwid yang betul di hadapan guru mengikut tema yang diberikan. Setelah itu, pelajar akan menghafaz ayat tersebut dan memahami makna ayat yang dihafaz. Kemudian pelajar akan memperdengarkan ayat hafazan di hadapan guru dan menghuraikan makna umum ayat. Setelah selesai menghafaz ayat, pelajar diminta pula untuk mengingati terjemahan makna bagi perkataan-perkataan terpilih dan menulisnya dalam kertas tahriri dan membuat semakan selanjutnya di hadapan guru. Pelajar yang telah berjaya melalui proses ini akan sentiasa melakukan *murajah* (ulangkaji) sendiri dengan diawasi oleh pihak guru (Ahmad Bazli et al., 2017).

5. Amalan hafazan yang dipraktikkan di Maahad Tahfiz al-Quran Wal Qiraat (MTAQ), Pulau Condong, Kelantan ialah mewajibkan pelajar terlebih dahulu mendengar dengan teliti sebutan dan bacaan guru. Setelah itu, itu pelajar pula akan membaca kembali ayat al-Quran tersebut sambil guru memperbetulkan bacaan mereka. Sebelum berhadapan dengan guru, pelajar akan membaca ayat-ayat hafazan di hadapan rakan mereka untuk memastikan tidak berlakunya kesalahan pada sebutan huruf, hukum tajwid dan sifat hurufnya. Sistem hafazan yang diamalkan di MTAQ diatur mengikut bilangan juzuk setiap tingkatan kelas. Pelajar tingkatan 1 perlu menghafaz sebanyak enam juzuk termasuk juzuk ke-30. Manakala bagi pelajar tingkatan 2 dan 3 dikehendaki untuk menghafaz lapan juzuk. Pelajar tingkatan 4 pula diwajibkan untuk menghafaz sebanyak 6 juzuk dan seterusnya pelajar tingkatan 5 perlu menghafaz baki dua juzuk terakhir. Semasa pelajar berada di tingkatan 6, mereka akan melalui proses pengulangan untuk kesemua juzuk di dalam al-Quran. Pelajar akan memperdengarkan hafazan mereka di hadapan guru setelah selesai menghafaz setiap juzuk daripada al-Quran. Pelajar juga diwajibkan untuk menulis ayat-ayat hafazan dalam buku tulisan ayat yang disediakan oleh pihak maahad (Amran et al).

6. Kaedah Hafazan Sistem India dan Pakistan di Madarasatul Quran, Kubang Bujuk, Terengganu. Di Madarasatul Quran, Kubang Bujuk (MQKB), kelas pengajian tahfiz dijalankan dalam dewan yang terdiri daripada beberapa kumpulan kelas. Setiap kumpulan terdiri daripada 20 pelajar dan seorang guru yang duduk dalam keadaan halaqah berbentuk segi empat. Pada kebiasaannya, di MQKB, kaedah menghafaz al-Quran bermula dari juzuk 1 hingga 30. Walau bagaimanapun, kaedah menghafaz al-Quran bermula dari juzuk ke-30 juga dilaksanakan. Setelah selesai menghafaz juzuk ke-30, pelajar akan kembali menghafaz juzuk pertama, kedua,

dan seterusnya. Kaedah ini digunakan untuk memudahkan pelajar menghafaz al-Quran dengan surah yang pendek terlebih dahulu, diikuti oleh surah yang panjang. Di MQKB, kaedah *khatam sabaq* digunakan, setiap hari pelajar menghafaz hafazan baharu sebanyak satu hingga tiga muka surat sehingga tamat 30 juzuk. Setiap pelajar akan melancarkan ayat yang ingin dihafaz secara bersendirian terlebih dahulu, kemudian mereka akan memperdengarkan bacaan kepada rakan sekelas. Kaedah semak bacaan atau tasmik digunakan untuk memastikan bacaan mereka betul. Setelah kesalahan diperbaiki, pelajar akan memperdengarkan bacaan kepada guru (Amran et al).

7. Kaedah-kaedah hafazan al-Quran pelajar Darul Quran JAKIM dibahagikan kepada lapan kaedah. Pertama; kaedah *talaqqi* dan *musyafahah*. Pada awalnya pelajar akan mendengar bacaan guru dan setelah itu pelajar dikehendaki memperdengarkan/ tasmik hafazan mereka kepada guru. Kedua; kaedah *takrir* iaitu mengulang bacaan sama ada menyemak hafazan bersama kawan, membaca ayat hafazan dalam setiap solat dan juga menyediakan jadual hafazan dan ulangan. Ketiga; kaedah *tahsin* iaitu mengulang hafazan serta menjaga bacaan daripada kesalahan baris, sifat huruf dan hukum tajwid bagi setiap ayat yang dihafaz. Keempat; kaedah tafsiran dan menulis. Pelajar akan membaca terjemahan dan memahami makna ayat sepenuhnya sebelum memulakan hafazan. Pelajar juga perlu menulis ayat hafazan sebelum dan selepas menghafaznya. Kelima; kaedah Chunking iaitu membahagi dan menentukan ayat yang ingin dihafaz serta menetapkan kadar ayat hafazan mengikut kemampuan. Keenam; kaedah Minda Fotografi iaitu pelajar akan menggambarkan ayat hafazan mereka dalam ingatan. Dan yang terakhir kaedah multimedia iaitu pelajar akan menghafaz sambil mendengar audio seterusnya merakam suara bagi menyemak hafazan mereka (Abd Rahman et al., 2017).

8. Teknik hafazan al-Quran Ulul Albab di Sekolah Imtiaz Terengganu. Teori al-Ghawthani dalam hafazan al-Quran dijadikan landasan kepada metode hafazan di Sekolah Imtiaz. Terdapat beberapa kaedah hafazan yang diamalkan di Imtiaz. Kaedah pertama ialah kaedah ulangan (*takrir*) iaitu pelajar perlu membaca berulang kali ayat yang sama sehingga mereka mampu mengingati ayat tersebut dengan baik serta memelihara hukum tajwid. Setelah mereka yakin bahawa hafazan itu telah lancar, barulah berpindah kepada bacaan atau hafazan ayat yang baharu. Kaedah *takrir* ini perlu dilakukan dengan suara yang boleh didengar dan diulang sebanyak yang diperlukan. Kaedah kedua ialah halaqah iaitu aktiviti menghafaz di dalam kumpulan seramai 10 hingga 15 pelajar sambil diawasi oleh guru tasmik. Setiap pelajar akan direkod kehadiran mereka dan dicatat bacaan di dalam Rekod Talaqqi Halaqah al-Quran. Kaedah ketiga ialah *talaqqi* iaitu mempelajari bacaan al-Qur'an secara bertajwid, membetulkan bacaan. Setiap bacaan pelajar akan diperbetulkan terlebih dahulu oleh guru sebelum proses menghafaz. Pelajar juga akan mencontohi bacaan guru dan memperdengarkan bacaannya kepada guru. Kaedah keempat ialah *tasmik* iaitu proses memperdengarkan hafazan pelajar kepada guru. *Tasmik* dilakukan untuk menyemak bacaan hafazan ayat lama dan baharu di hadapan guru. Kaedah kelima ialah *muraja'ah* bermaksud mengulangkaji pembelajaran atau hafazan yang lepas bertujuan untuk semakan dan pengukuhan. Kaedah keenam ialah fiqh ayat iaitu pelajar perlu memahami maksud dan kandungan ayat yang dibaca. Pelajar mampu memberikan tumpuan yang lebih terhadap ayat yang dihafaz apabila mereka memahami setiap makna perkataan dan ayat yang dibaca. Kaedah ketujuh ialah kaedah gundal iaitu bermaksud kekerapan. Pelajar perlu menulis dan menyalin semula setiap ayat yang dihafaz di dalam buku *hifz tahriri* atau *kitabah* mengikut jumlah kekerapan yang disasarkan (1 ayat 1 muka surat selama 30 minit). Kaedah terakhir adalah kaedah *taqsim* iaitu membahagikan muka surat dalam lembaran al-Quran sebelum memulakan hafazan. Teknik ini akan membahagikan setiap halaman al-Quran kepada tiga bahagian (Wan Ahmad Zakry et al., 2020).

9. Kaedah hafazan Tahfiz al-Quran Darul Tuba di Tangkak Johor, Darul Takzim menggunakan sistem hafazan Turki. Sistem hafazan menggunakan sistem Turki ini mengamalkan hafazan al-Quran dengan memulakan tasmik hafazan juzuk 1 di muka surat akhir yang dinamakan juga *sayfar* 1. Setiap hafazan pelajar akan dicatat dan ditandatangani oleh guru di dalam buku laporan hafazan disebut sebagai *cizelge* dalam bahasa Turki. Teknik sistem Turki ini mampu mengurangkan rasa jemu menghafaz kerana tidak tertumpu pada sesuatu juzuk terlalu lama. Selain itu, pelajar juga digalakkan untuk mengikuti kelas ulangan dan membuat ulangan (*has*) sebelum menghadapi *imtihan syahadah* yang bertujuan untuk memantapkan mutu bacaan dan hafazan (Abdul Hafiz & Norhanan, 2017).

10. Kaedah menghafaz al-Quran di Madrasah Tahfiz al-Quran Darul Ta'alim, Kg. Tengah, Kluang. MTQDT telah menggunakan sistem Bangladesh iaitu mempraktikkan hafazan secara juzuk demi juzuk sehingga hafazan lancar. Kaedah yang digunakan seperti kaedah *talaqqi*, *musyafahah*, *takrir* dan *tasmik*. Kaedah *talaqqi* adalah bermaksud pelajar akan melakukan bacaan dan hafazan di hadapan guru bagi menyemak dan memperbaiki segala kekurangan bacaan dan hafazan tersebut. Manakala, kaedah *musyafahah* pula adalah kaedah di mana pelajar akan mengikuti pergerakan bibir guru serta mencuba menyebut sepertimana guru sambil memperhatikan ketepatan penuturan, sebutan, makhraj huruf dan sifat huruf. Kaedah tasmik pula adalah pelajar akan memperdengarkan hafazan baharu kepada guru. Melalui kaedah ini guru akan merekod seterusnya mengesan tahap pencapaian hafazan pelajar dari masa ke semasa. Seterusnya adalah kaedah kefahaman iaitu pelajar akan memahami dan menghayati lebih mendalam maksud isi kandungan al-Quran melalui terjemahan, tafsiran dan *asbab al-nuzul* bagi setiap ayat yang dihafaz. Kaedah yang terakhir adalah kaedah penulisan iaitu pelajar akan menulis setiap perkataan yang dihafaz berulang kali sehingga mereka mampu menguasai hafazan tersebut. Kaedah penulisan ini dapat membantu pelajar dalam penilaian soalan ujian dan peperiksaan (Abdul Hafiz & Nur Safazilah, 2016).

11. Sekolah Nur Islam Al-Azhar (SINAR) mempraktikkan lima teknik hafazan al-Quran. Teknik yang pertama ialah teknik mengulang-ulang bacaan dan ayat hafazan berserta terjemahan per perkata sebanyak 10 kali ataupun lebih mengikut ayat yang ditetapkan oleh guru. Teknik kedua ialah teknik mendengar iaitu mendengar bacaan guru serta mengikut bacaan tersebut sehingga pelajar dapat mengingati dengan baik. Teknik ketiga ialah teknik pembahagian ayat dan terjemahan per kata. Pelajar akan memisahkan ayat al-Quran dan terjemahannya kepada beberapa bahagian kemudian menyusunnya mengikut turutan yang betul. Teknik keempat ialah teknik penulisan iaitu pelajar akan menulis semula setiap ayat, terjemahan dan per kata yang telah dihafaz. Setelah itu, pelajar akan menyemak penulisan mereka sambil merujuk kembali ke dalam mushaf yang digunakan. Teknik kelima ialah teknik menghafaz dengan rakan iaitu membaca dan menyemak hafazan bersama rakan, bertujuan untuk mengukuhkan dan memperbetulkan hafazan (Siti Mursyidah et al., 2018).

Penerapan Elemen Pembelajaran Vark Dalam Teknik Pembelajaran Dan Hafazan Al-Quran

Penelitian terhadap teknik pembelajaran dan hafazan tahfiz di atas, didapati elemen pembelajaran berasaskan VARK (visual, auditory, reading & writing, kinestetik) ada diterapkan. Perincian teknik dan elemen pembelajaran yang terlibat dapat ditunjukkan sebagaimana dalam jadual di bawah;

Jadual 1: Elemen Pembelajaran VARK dalam Teknik Pembelajaran dan Hafazan Al-Quran

| Elemen Vark | Teknik Pembelajaran dan Hafazan Al-Quran | Sekolah / Program |
|---|---|---|
| Visual | 1. Memvisualisasikan ayat hafazan dalam bentuk permainan <i>puzzle</i> | komuniti Orang Kelainan Upaya (OKU) |
| | 2. Kaedah Tahfiz Akhyar ini menekankan pembelajaran secara visual dengan menggunakan imej visual interaktif serta imej-imej pegun dan visual bergerak | |
| Auditori | 1. Menggunakan bahan bantuan belajar berwarna, bergambar dan peta minda terutamanya dalam kalangan hafiz kanak-kanak | Al-Baghdadi Learning Centre (ALC) |
| | 2. Kaedah Minda Fotografi iaitu pelajar akan menggambarkan ayat hafazan mereka dalam ingatan | Darul Quran JAKIM |
| | 1. Pelajar diperdengarkan bacaan ustaz sebanyak 3 kali | Al-Baghdadi Learning Centre (ALC) |
| | 2. Mengulang semula bacaan tersebut secara berkumpulan sebanyak 3 kali. | |
| | 1. Pelajar kemudiannya akan mentasmi' hafazan mereka di hadapan guru dan menghuraikan makna umum ayat. | Kolej Permata Insan |
| | 1. Mewajibkan pelajar terlebih dahulu mendengar dengan teliti sebutan dan bacaan guru. | Maahad Tahfiz al-Quran Wal Qiraat (MTAQ), Pulau Condong, Kelantan |
| | 2. Pelajar akan membaca ayat-ayat hafazan di hadapan kawan mereka | |
| | 3. Pelajar akan memperdengarkan hafazan mereka di hadapan guru | |
| | 1. Setiap pelajar akan memperdengarkan bacaan kepada rakan sekelas. Kaedah semak bacaan atau tasmi' digunakan untuk memastikan bacaan mereka betul. | Madarasatul Quran, Kubang Bujuk, Terengganu |
| | 1. Mendengar bacaan guru dan setelah itu pelajar perlu tasmi' hafazan mereka kepada guru. | Darul Quran JAKIM |
| | 2. Kaedah takrir iaitu mengulang bacaan sama ada menyemak hafazan bersama kawan | |
| | 3. Pelajar akan menghafaz sambil mendengar audio seterusnya merakam suara bagi menyemak hafazan mereka | |
| 1. Aktiviti menghafaz di dalam kumpulan seramai 10 hingga 15 pelajar sambil diawasi oleh guru tasmi'. | Sekolah Imtiaz Terengganu | |
| 2. Mencontohi bacaan guru dan memperdengarkan bacaannya kepada guru. | | |
| 1. Memulakan tasmi' hafazan juzu' 1 di muka surat akhir yang dinamakan juga sayfar 1 (pendekatan pengajaran) | Tahfiz al-Quran Darul Tuba di Tangkak Johor, Darul Takzim | |
| 1. Kaedah musyafahah pula adalah kaedah di mana pelajar akan mengikuti pergerakan bibir guru serta mencuba menyebut sepertimana yang dibacakan guru tadi sambil | Madrasah Tahfiz al-Quran Darul Ta'alim, Kg. Tengah, Kluang. | |

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|--------------------------|--|---|
| | memperhatikan ketepatan penuturan, sebutan, makhraj huruf dan sifat huruf. | |
| | 2. Kaedah tasmi' pula adalah pelajar akan memperdengarkan hafazan baru kepada guru | |
| | 1. Teknik mendengar iaitu mendengar bacaan guru serta mengikut bacaan tersebut sehingga pelajar dapat mengingati dengan baik | Sekolah Nur Islam Al-Azhar (SINAR) |
| | 1. Teknik menghafaz dengan rakan iaitu membaca secara hafazan ayat dan menyemak hafazan bersama rakan bertujuan untuk mengukuhkan dan memperbetulkan hafazan | Sekolah Nur Islam Al-Azhar (SINAR) |
| Reading (Membaca) | 1. Pelajar diperdengarkan bacaan ustaz sebanyak 3 kali sambil melihat dan merujuk bahan khas yang diberikan. | Al-Baghdadi Learning Centre (ALC) |
| | 2. Kemudian pelajar akan mengikut semula bacaan itu sebanyak 3 kali. | |
| | 3. Mengulang semula bacaan tersebut secara berkumpulan sebanyak 3 kali. | |
| | 1. Pelajar diminta untuk menyemak ketepatan bacaan beserta tajwid yang betul di hadapan guru | |
| | 1. Pelajar pula akan membaca kembali ayat al-Quran tersebut sambil guru memperbetulkan bacaan mereka. | Maahad Tahfiz al-Quran Wal Qiraat (MTAQ), Pulai Condong, Kelantan |
| | 1. Setiap pelajar akan melancarkan ayat yang ingin dihafaz secara bersendirian terlebih dahulu, | Madarasatul Quran, Kubang Bujuk, Terengganu |
| | 1. Pelajar perlu membaca berulang kali pada ayat yang sama sehingga mereka mampu mengingati dengan baik beserta memelihara hukum tajwid | Sekolah Imtiaz Terengganu |
| | 1. Teknik mengulang-ulang bacaan dan ayat hafazan beserta terjemahannya per perkata | Sekolah Nur Islam Al-Azhar (SINAR) |
| Writing (Menulis) | 1. Melalui Mushaf Tahriri ini pelajar perlu menyalin semula ayat al-Quran dengan menggunakan tulisan tangan iaitu mengikut muka surat yang mereka ingin tasmi' iaitu ayat dalam hafazan baharu pelajar | Sekolah Menengah/ Maahad Hafiz Jeram (Banat) |
| | 2. Menulis ayat-ayat hafazan dalam buku tulisan ayat yang disediakan oleh pihak maahad | Maahad Tahfiz al-Quran Wal Qiraat (MTAQ), Pulai Condong, Kelantan |

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- | | |
|--|---|
| <ol style="list-style-type: none"> 1. Mengingati terjemahan makna bagi perkataan-perkataan terpilih dan menulisnya dalam kertas tahriri dan membuat semakan selanjutnya di hadapan guru. | |
| <ol style="list-style-type: none"> 2. Pelajar juga perlu menulis ayat hafazan sebelum dan selepas menghafaznya. | <p>Darul Quran JAKIM</p> |
| <ol style="list-style-type: none"> 1. Menulis dan menyalin semula setiap ayat yang dihafaz di dalam buku hifz tahriri atau kitabah mengikut jumlah kekerapan yang disasarkan (1 ayat 1 muka surat selama 30 minit | <p>Sekolah Imtiaz Terengganu</p> |
| <ol style="list-style-type: none"> 1. Pelajar akan menulis setiap perkataan yang dihafaz berulang-ulang kali sehingga mereka mampu menguasai hafazan tersebut. Kaedah penulisan ini dapat membantu pelajar dalam penilaian soalan ujian dan peperiksaan | <p>Madrasah Tahfiz al-Quran Darul Ta'alim, Kg. Tengah, Kluang</p> |
| <ol style="list-style-type: none"> 1. Teknik penulisan iaitu pelajar akan menulis semula setiap ayat, terjemahan dan per kata yang telah dihafaz | <p>Sekolah Nur Islam Al-Azhar (SINAR)</p> |
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Daripada jadual di atas dapat dilihat elemen-elemen pembelajaran VARK (*visual, auditory, reading & writing, kinesthetic*) diterapkan dalam teknik pembelajaran dan penghafazan ayat-ayat al-Quran kecuali kinestetik. Gaya pembelajaran auditori yang menggunakan deria pendengaran paling banyak diterapkan dalam teknik pembelajaran dan teknik hafazan para pelajar. Antara teknik dalam kategori ini ialah pelajar mendengar sebutan dan bacaan guru serta mengikut bacaan guru sehingga pelajar dapat mengingatinya dengan baik, pelajar menghafaz sambil mendengar audio, pelajar memperdengarkan (tasmik) ayat hafazan di hadapan guru, menyemak hafazan bersama rakan dan merakam suara bagi menyemak hafazan.

Selain itu, gaya pembelajaran yang paling banyak diterapkan selepas gaya pembelajaran auditori ialah membaca (*reading*). Antara teknik tersebut ialah pelajar mengikut semula bacaan guru secara individu, pelajar mengulang semula bacaan guru secara beramai-ramai (berkumpulan), pelajar membaca ayat-ayat hafazan di hadapan rakan, menyemak ketepatan bacaan dan tajwid di hadapan guru, membaca terjemahan dan memahami makna ayat sepenuhnya, membaca berulang kali ayat yang sama sehingga dapat mengingati ayat tersebut, mengulang-ulang bacaan dan hafazan serta membaca ayat hafazan dalam solat.

Seterusnya, gaya pembelajaran yang banyak diterapkan dalam teknik pembelajaran dan penghafazan ayat-ayat al-Quran ialah menulis (*writing*). Contohnya pelajar menulis ayat hafazan atau ayat yang ingin ditasmik dan menulis semula ayat yang telah dihafaz.

Sementara gaya pembelajaran yang paling kurang popular atau kurang diterapkan dalam teknik pembelajaran dan penghafazan ayat-ayat al-Quran ialah gaya pembelajaran visual. Walau bagaimanapun terdapat pusat atau sekolah tahfiz yang cuba menerapkan gaya pembelajaran secara visual dengan menggunakan bahan bantuan belajar berwarna, bergambar dan peta minda. Selain itu, menggunakan imej visual interaktif serta imej-imej pegun dan visual bergerak serta mengambarkan ayat hafazan dalam ingatan (minda fotografi) antara teknik yang dapat menarik pelajar yang mempunyai gaya pembelajaran visual.

Kesimpulan

Teknik pembelajaran dan hafazan yang diterapkan di pusat-pusat atau sekolah-sekolah tahfiz di Malaysia masih banyak menggunakan teknik tradisional. Bagaimanapun elemen pembelajaran berasaskan VARK ada diterapkan tetapi lebih tertumpu kepada mod pembelajaran auditori dan mod pembelajaran membaca atau menulis. Sedangkan teknik pembelajaran dan hafazan dalam mod pembelajaran visual dan kinestetik kurang atau tidak diterapkan sama sekali. Justeru itu, dicadangkan kepada pusat-pusat tahfiz dan sekolah-sekolah tahfiz agar mempelbagaikan dan menyesuaikan teknik pembelajaran dan penghafazan al-Quran mengikut kecenderungan mod pembelajaran pelajar. Kerana pembelajaran berasaskan VARK memberi peluang kepada pelajar untuk belajar secara langsung dengan bebas menggunakan kemampuan yang dimilikinya bagi mencapai tahap hafazan yang optimum selain memberikan pengalaman pembelajaran yang dapat mengembangkan potensi diri pelajar.

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