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**“Navigating Global Markets:
Strategies for Marketing
Innovation, Entrepreneurial
Growth, and Economic Resilience”**

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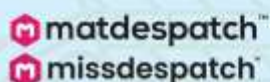
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ECONOMIC RESILIENCE

013-006

SURVEYING STUDENT DATA FOR ECONOMIC RESILIENCE

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ABSTRACT

In today's dynamic educational landscape, understanding student performance is not only crucial for academic institutions but also for fostering economic resilience through the development of skilled professionals. This paper explores the innovative use of student surveys to gather sensitive academic data, particularly grades, and its implications for entrepreneurial growth and economic resilience within bachelor's degree programs. Ethical considerations, such as informed consent and data security, guided our approach in compliance with legal regulations, ensuring transparency and trustworthiness. Employing a survey-based methodology, we empowered bachelor's degree students to self-report their grades, emphasizing participant autonomy and confidentiality. Our research reveals valuable insights into the accuracy of self-reported grades, grade distribution patterns, and disparities between self-reported grades and official records. These findings not only underscore the importance of transparent communication and ethical practices but also highlight the potential of leveraging student data to drive marketing innovation in educational services. By harnessing insights from student surveys, educational stakeholders can tailor marketing strategies to enhance academic support services, foster entrepreneurial growth among students, and ultimately contribute to economic resilience. This paper advocates for the integration of ethical data collection practices and robust validation techniques to ensure the reliability and validity of collected data, thereby facilitating informed decision-making and driving positive outcomes in bachelor's degree programs.

Keywords: Student Performance, Economic Resilience, Student Surveys, Marketing Innovation, Survey Methodology.

018-010

ASSESSING THE TRADE EFFECTS OF THE CPTPP ON MALAYSIA'S TRADE: INSIGHTS FROM A GRAVITY MODEL ANALYSIS

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ABSTRACT

Malaysia joined the Comprehensive and Progressive Agreement for the Trans-Pacific Partnership (CPTPP) in 2018 and ratified it in 2022. The CPTPP was formed after the Trans-Pacific Partnership Agreement (TPPA) collapsed in 2017. The CPTPP includes countries like Australia, Brunei, Canada, Chile, Japan, Malaysia, Mexico, New Zealand, Peru, Singapore, and Vietnam, with the United Kingdom becoming the thirteenth member in 2023. Analysts have different views on how Malaysia's ratification will impact trade and economic growth, depending on their political and economic perspectives. The aim of this research is to identify and assess the factors that influence Malaysia's trade relationships with other CPTPP member countries after the formation of the CPTPP trade bloc. The gravity model suggests that national income and foreign direct investment are key drivers of Malaysia's trade with CPTPP members. Proximity to borders also plays a crucial role, with neighboring countries having stronger trade connections due to lower transportation costs. On the other hand, exchange rates have a limited impact on Malaysian trade. Regional trade agreements, such as ASEAN-based FTAs and NAFTAs, also impact trade patterns. However, NAFTA has a negative effect on Malaysian trade due to trade diversion. While the CPTPP has not yet had a significant influence on Malaysian trade, it is expected to bring benefits in the medium to long term as market liberalization effects take full effect. This study contributes to the understanding of trade dynamics by identifying explanatory variables and their interactions within the gravity model framework, enhancing the empirical analysis of FTAs' impact on intra- and extra-regional trade.

Keywords: Malaysia, Gravity Model, CPTPP, NAFTA, ASEAN.

INTRODUCTION

A free trade agreement (FTA) is a pact between nations aimed at reducing or eliminating trade barriers, allowing for tariff-free trade among member countries while maintaining individual tariffs for non-members. Regional economic integration is primarily facilitated through FTA. Numerous countries worldwide have formed FTAs with their preferred partners, leading to a complex network of trade deals. As of 1 May 2024, there were 371 active RTAs globally (World Trade Organization [WTO], (2024).

Malaysia began negotiations for the Comprehensive and Progressive Agreement for the Trans-Pacific Partnership (CPTPP) in November 2017, following the United States of America (US) withdrawal from the Trans-Pacific Partnership (TPP) in January 2017. The CPTPP evolved from the earlier Trans-Pacific Strategic Economic Partnership Agreement (TPSEPA), which was signed in 2005 by Brunei, Chile, New Zealand, and Singapore. The negotiations for TPSEPA were expanded to include the US, Australia, Peru, Vietnam, Malaysia, Canada, Mexico, and Japan, leading to the establishment of the TPP in 2015. Despite the US pulling out of the TPP in 2017, the remaining 11 countries formed the CPTPP, concluding negotiations in January 2018 and signing the agreement in March 2018. The CPTPP came into effect on December 30, 2018, with ratifications ongoing until 2023. Countries like the UK, Ukraine, China, Taiwan, South Korea, Indonesia, Thailand, the Philippines and various Latin American nations— Colombia, Costa Rica, Ecuador, and Uruguay— have expressed interest in joining, potentially expanding the CPTPP to 23 members. The UK officially joined on July 16, 2023, becoming the 12th member of the CPTPP.

Analysts are divided on whether Malaysia should join the CPTPP. Opinions vary based on political and economic ideologies. Some are concerned that joining the agreement might erode Malaysia's economic sovereignty, while others are optimistic about the new trade and business opportunities it could bring. Non-governmental organizations (NGOs) worry that the CPTPP might disadvantage local businesses and give foreign corporations more control over Malaysia's economy. On the other hand, the business community and industrialists see the CPTPP as a chance to access new markets, attract foreign investment, and integrate into global supply chains. Despite the concerns from NGOs, businesses remain hopeful about the economic benefits Malaysia could gain from joining the CPTPP. To address these issues, this study employs a gravity model to identify and assess the trade determinants that may influence Malaysia's trade with CPTPP countries, thereby ascertaining the potential impact of the CPTPP on Malaysian trade with CPTPP member nations.

The study's novelty is found in its conceptual and policy implications. It adds to the conceptual understanding by pinpointing explanatory variables and their interactions within the gravity model framework, improving the empirical analysis of FTAs. In terms of practical significance, it fills a gap in the literature by examining the relatively unexplored effects of the CPTPP on Malaysian trade, specifically through the gravity model methodology. It offers evidence-based suggestions for policymakers to enhance trade policies, improve competitiveness, and align domestic strategies with CPTPP objectives. Accordingly, the study aims to identify and assess the trade determinants that shape Malaysia's trade relationships with CPTPP member countries.

METHODS

Theory of Regional Economic Integration

Regional economic integration is a key aspect of international trade relations, aiming to reduce or eliminate economic barriers among participating nations. This process enhances productivity and fosters economic interdependence through agreements like free trade areas, customs unions, common markets, and economic unions. By collaborating, countries can leverage their collective strengths and resources for more efficient production, increased trade, and improved living standards.

The main benefits of regional economic integration include a larger, more competitive market that encourages businesses to innovate, reduce costs, and enhance product quality. Consumers benefit from a wider range of products at lower prices, while countries in an integrated region often experience robust economic growth due to reduced trade barriers and increased investment flows. Despite challenges like differences in economic development levels, regulatory standards, and political systems, the trend towards regional economic integration continues to grow as globalization advances and the interconnectedness of economies becomes increasingly important (D. Rillo & dela Cruz, 2016).

To achieve economic and political goals, FTAs adopt various modalities ranging from preferential trading areas to economic unions. The stages of regional economic integration include preferential trade zones, free trade areas, customs unions, common markets, and economic unions. Figure 1 illustrates the stages of regional economic integration, beginning with preferential trade zones and culminating in an economic union.

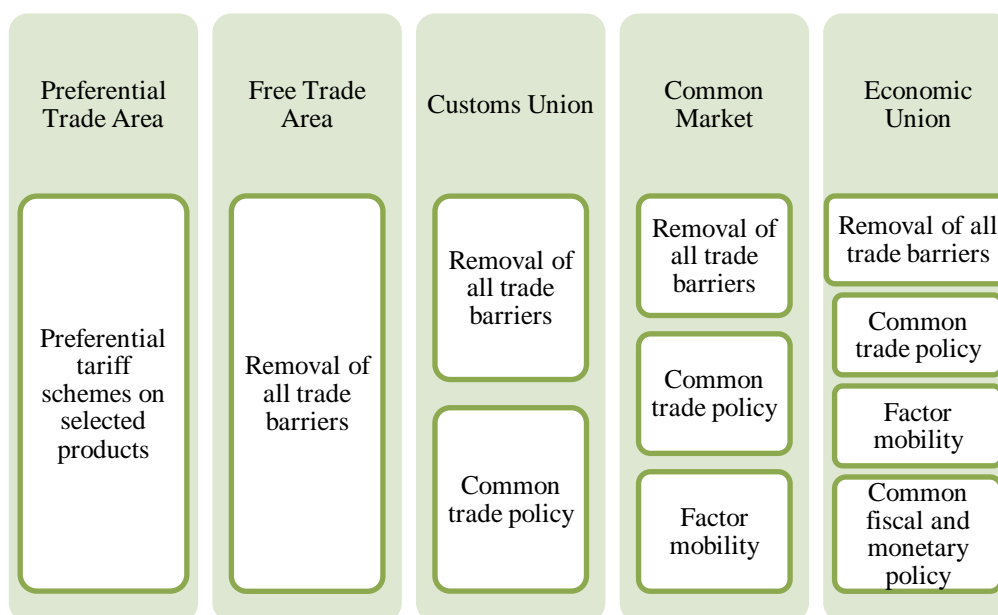


Figure 1. Development stages of regional economic integration

An example of a Preferential Trade Area (PTA) is the D-8 Organization for Economic Cooperation, which includes Iran, Pakistan, Malaysia, Indonesia, Nigeria, and Turkey. Established in 1997, the D-8 PTA aims to boost regional integration through trade and investment by reducing tariffs and barriers among its members. While it doesn't eliminate tariffs entirely, it offers preferential access to certain goods traded within the member states, fostering economic cooperation and development in the region.

The North American Free Trade Agreement (NAFTA) and the ASEAN Free Trade Area (AFTA) are two prominent examples of FTAs that have significantly boosted regional trade and investment since their inception. Formed in 1994 and 1992 respectively, these FTAs promote economic integration while also respecting the sovereignty of member states in determining their external trade policies. They strike a balance between regional economic cooperation and national autonomy, providing a framework for collaboration and shared benefits while allowing countries to pursue their individual trade objectives on the global scale. NAFTA covers the United States, Mexico, and Canada. The AFTA includes 10 Southeast Asian countries: Brunei Darussalam, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand, and Vietnam. The CPTPP, which is the focus of this paper, is also an FTA.

The European Union (EU) exemplifies a customs union, having eliminated tariffs and restrictions on internal trade while applying a common external tariff on imports. This enables the EU to negotiate trade deals as a bloc, leveraging its collective economic power. Additionally, the EU is a common market that allows free movement of goods, services, capital, and people, fostering competition, innovation, and economic growth. Businesses benefit from a larger consumer base and diverse talent, while consumers enjoy a wider range of products and services. The EU's goal of economic union, marked by the establishment of the economic and monetary union and the adoption of the Euro, drives ongoing efforts to deepen integration and address challenges like economic disparities and institutional reforms. As of 2024, the countries participating in the EU bloc are Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, and Sweden.

CPTPP

The CPTPP Agreement was endorsed by all 11 nations on March 8, 2018, in Santiago, Chile. It entered into force on December 30, 2018, after six countries ratified it: Canada, Australia, Japan, Mexico, New Zealand, and Singapore. Malaysia ratified it on September 30, 2022, Chile on February 20, 2023, and Brunei on July 12, 2023. All member countries have now ratified the agreement, allowing for its full implementation.

The CPTPP aims to reduce or eliminate tariffs on most goods, improve market access, and standardize regulations related to labor rights, environmental protection, and intellectual property. The agreement also includes provisions to safeguard foreign investments and establish

mechanisms for resolving trade and investment disputes. By promoting trade and investment, the CPTPP aims to enhance economic integration and cooperation among member countries, fostering regional growth and development. Additionally, the agreement ensures that the benefits of trade are shared equitably, with measures to support small and medium-sized enterprises (SMEs), promote gender equality, and protect indigenous rights. Encompassing both goods and services, the CPTPP facilitates increased market access and regulatory cooperation in sectors such as finance, telecommunications, and e-commerce, with the goal of creating a comprehensive and progressive framework for international trade and investment (D. Cimino-Isaacs, 2023)

Table 1 shows Malaysia's existing FTAs with CPTPP member countries. Malaysia has bilateral FTAs with Japan, Australia, New Zealand, and Chile. All CPTPP member countries, except Canada, Mexico, Chile, and Peru, are covered under ASEAN-based FTAs. This indicates that Malaysia did not have bilateral FTAs with Canada, Mexico, and Peru before the CPTPP was formed. The CPTPP has provided Malaysia with new market opportunities in the Americas region, specifically in Canada, Mexico, and Peru.

Table 1. Malaysia's FTAs with CPTPP member states

| | CPTPP member states | Malaysia's Bilateral FTAs | ASEAN-based FTAs |
|-----|---------------------|--|--|
| 1. | Malaysia | — | |
| 2. | Brunei | — | AFTA (1992) |
| 3. | Singapore | — | |
| 4. | Vietnam | — | AFTA (1995) |
| 5. | Japan | Malaysia-Japan Economic Partnership Agreement (2006) | ASEAN-Japan FTA (2008) |
| 6. | Canada* | — | — |
| 7. | Mexico* | — | — |
| 8. | Australia | Malaysia-Australia (2013) | ASEAN-Australia-New Zealand FTA (2014) |
| 9. | New Zealand | Malaysia-New Zealand (2010) | |
| 10. | Chile | Malaysia-Chile (2012) | — |
| 11. | Peru* | — | — |

Notes: * new market, — = not applicable; (year) = year of establishment; CPTPP -Comprehensive and Progressive Agreement for Trans-Pacific Partnership; ASEAN - Association of Southeast Asian Nations; AFTA - ASEAN Free Trade Area; FTAs - Free Area Agreements

Source: Compiled by Authors

The significance of the CPTPP bloc in the global economy is evident through its contribution to the global economy, specifically in terms of gross domestic product (GDP), which serves as an indicator of a country's economic status. From 2018 to 2022, the CPTPP played a significant role in the global economy, contributing an average of 13% to the global GDP (Table 2). Among the member countries of CPTPP, Japan stood out as one of the major economic powers, alongside China and the US. Japan made the largest contribution to the total CPTPP GDP, accounting for 42% of the total, while Brunei had the smallest contribution at 0.1%. This disparity can be attributed to Brunei's relatively small economy. Malaysia, on the other hand, contributed around 3% to the overall CPTPP GDP.

Japan led the CPTPP member countries in GDP rankings from 2018 to 2022, followed by Canada, Australia, and Mexico. Malaysia ranked fifth. These disparities in income levels provide insights into a country's economic strength and market size. According to Eapen et al. (2023), Malaysia, Mexico, and Peru are in the upper middle-income group, while Vietnam is in the lower middle-income group and the least developed country in the CPTPP. The remaining members, including Japan, Canada, Australia, Singapore, Chile, New Zealand, and Brunei, are high-income economies. Malaysia faces challenges in moving towards becoming a high-income country due to being 'stuck' in the middle-income trap.

The size of GDP among CPTPP members indicate that Japan is likely to take the lead in the development of the agreement. Malaysia stands to benefit from Japan's prominent role in the CPTPP, given its strong trade relations with Japan. These trade ties have been strengthened by the Malaysia-Japan Economic Partnership Agreement (MJEPA) in 2006 and the ASEAN-Japan Comprehensive Economic Partnership (AJCEP) in 2008, which have promoted extensive bilateral trade and economic collaboration.

Table 2. GDP of CPTPP member nations, 2018-2022 (5-year average)

| CPTPP members | USD billion | Growth rate (CAGR) | Share of World GDP | Share of CPTPP GDP |
|---------------|-------------|-----------------------|--------------------|-----------------------|
| Australia | 1,511 | 2.0% | 1.8% | 14% |
| Brunei | 13 | 0.4% | 0.0% | 0.12% |
| Canada | 1,682 | 1.2% | 2.0% | 16% |
| Chile | 265 | 2.0% | 0.3% | 2% |
| Japan | 4,497 | -0.4% | 5.3% | 42% |
| Malaysia | 360 | 2.6% | 0.4% | 3% |
| Mexico | 1,250 | 0.0% | 1.5% | 12% |
| New Zealand | 207 | 2.4% | 0.2% | 2% |
| Peru | 212 | 1.5% | 0.2% | 2% |
| Singapore | 356 | 2.4% | 0.4% | 3% |
| Vietnam | 325 | 5.2% | 0.4% | 3% |
| CPTPP | 10,678 | 0.8% | 12.5% | 100% |
| World | 85,361 | 2.1% | 100.0% | — |

Notes: — not applicable; CAGR = compound annual growth rate; CPTPP = Comprehensive and Progressive Agreement for Trans-Pacific Partnership

Source: Data compiled from World Bank (2023)

Malaysia's inclusion in the CPTPP under Japan's leadership could further enhance these existing frameworks, fostering deeper economic connections, increased investments, and expanded market opportunities for Malaysian goods and services. Additionally, Japan's expertise in high-tech sectors, manufacturing, and innovation presents significant opportunities for CPTPP members, including Malaysia, to engage in strategic partnerships. These collaborations can facilitate technology sharing, research and development, and the enhancement of industrial capabilities. Such partnerships are poised to drive economic growth and diversification within the CPTPP region, fostering a stronger and more competitive economic alliance. Furthermore,

these collaborative efforts can support Malaysia's aspiration to attain high-income status by leveraging advanced technologies and innovative practices.

Gravity Model of Trade

The gravity model developed by Tinbergen (1962) offers a theoretical framework for understanding and predicting the flow of trade among nations. The theory suggests that the magnitude of trade exchanged between two nations is positively correlated with their economic size, typically gauged by their GDP, and negatively correlated with the geographical distance separating them. The gravity model draws inspiration from Newton's law of gravity, where the force of attraction between two objects is influenced by their mass and distance. Equation 1 represents Tinbergen's gravity model:

$$\text{Bilateral Trade}_{ij} = \frac{\text{GDP}_i \cdot \text{GDP}_j}{D_{ij}} \quad [1]$$

where $\text{Bilateral Trade}_{ij}$ is the bilateral trade value between countries i and j ; GDP_i is the income of country i ; GDP_j is the income of country j ; and D_{ij} is the distance between countries i and j . Equation 1 can be expressed in log form as in equation 2:

$$\ln(\text{Bilateral Trade}_{ij}) = \beta_0 + \beta_1 \ln(\text{GDP}_i \cdot \text{GDP}_j) + \beta_2 \ln(\text{Distance}) + \epsilon_{ij} \quad [2]$$

where β_0 , β_1 and β_2 are the coefficients that are to be estimated, and ϵ_{ij} is the error variable which observes any changes in events that may affect bilateral trade. The core gravity equation, Equation 2, predicts that bilateral trade is a positive function of income and a negative function of distance. More specifically, the gravity model assumes that larger economies will engage in more trade due to their greater production capacities and market opportunities. Additionally, it suggests that countries closer to each other will have more trade because distance affects transportation costs, communication, and cultural ties, making trade more feasible and less costly.

Over the years, Tinbergen's gravity model has been augmented by researchers to measure the strength of international trade relations between two countries. This is done by extending it to include several determinants other than national income and distance. Equation 3 is the extended specification of the gravity model in logarithmic form that is commonly used in international trade to explain bilateral trade flows:

$$\ln X_{ij} = \beta_0 + \beta_1 \ln(Y_i \cdot Y_j) + \beta_2 \ln(N_i \cdot N_j) + \beta_3 \ln D_{ij} + \beta_z \ln V_z + \epsilon_{ij} \quad [3]$$

where: i = importing country; j = exporting country; β_0 = intercept; β_i = coefficients of the explanatory variables; and ϵ_{ij} = lognormal error term. Equation 3 attempts to explain bilateral import demand (X_{ij}) with a variety of explanatory variables, example, income of the importing country (Y_i), income of the exporting country (Y_j), per capita income of the importing country (N_i), per capita income of exporting countries (N_j), a variable that accounts for the distance between the importing and exporting countries (D_{ij}), and a vector of additional or optional variables that are anticipated to have an impact on the bilateral trade flows (V_i).

The gravity model is widely used in trade analysis due to its reliability and strong explanatory power in practical settings (Anderson & van Wincoop, 2003; Baier & Bergstrand, 2001; Chaney,

2008; Eaton & Kortum, 2002). The model has consistently shown stability and robustness in economic analyses across different countries (Chaney, 2013). Leamer and Levinsohn (1995) have highlighted the gravity model's clear and robust findings in empirical economics, underscoring its effectiveness in capturing the determinants of bilateral trade flows. Studies have consistently demonstrated that the gravity model accurately reflects real-world trade patterns (Shahriar et al., 2019). This success is attributed to several key factors. First, its intuitive nature makes it accessible and understandable, allowing researchers to apply it effectively across various contexts. Second, the gravity model is grounded in strong theoretical foundations that provide a solid framework for analyzing trade flows. Third, it employs a general equilibrium framework that accounts for the interactions between multiple markets, offering a comprehensive view of trade dynamics.

Additionally, the gravity model's adaptable structural modeling enables it to incorporate a wide range of variables, such as economic size, distance, cultural factors, and trade policies, making it versatile and applicable to diverse trade scenarios (Ethridge, 2004; Van Bergeijk & Brakman, 2010). Its predictive capabilities are another significant advantage, as the model can forecast trade flows based on historical data and theoretical constructs, aiding policymakers and researchers in making informed decisions (Yotov et al., 2016).

Previous Studies

Before the TPP collapsed, several studies assessed its trade effects on member and non-member countries. Liaquat (2017), Zhao (2020), Tsang and Shakur (2017), and Nguyen and Henry (2016) analyzed the impact on individual countries like Canada, the United States, New Zealand, and Vietnam using gravity models, respectively. These models considered factors like national income, population, distance, and participation in trade blocs. Additional factors such as linguistic similarities and political stability were also included. The studies showed how the TPP could change trade relationships, enhance economic integration, and influence trade policies. Despite the TPP's collapse, these analyses are still valuable for understanding international trade agreements.

Given that the CPTPP is a relatively recent agreement, there has been limited research utilizing the gravity model to evaluate its trade effects on both member nations and non-member countries. Studies by Ha and Le (2019), Hoan (2020), and Le (2021) have examined how the agreement has impacted Vietnam's trade with member nations. Ha and Le found increased trade volumes and sectoral benefits, Hoan focused on agricultural and manufacturing sectors, and Le emphasized the importance of political stability and governance in maximizing CPTPP benefits for Vietnam.

Since its inception in 1992, researchers have conducted numerous studies on the effects of the AFTA on member and non-member countries. Notable contributions include studies by Trung (2009), Hapsari and Mangunsong (2006), and Siah et al. (2009). These studies analyze the impact of AFTA on trade dynamics within the region and beyond. Trung (2009) examined the factors influencing AFTA's intra-regional and extra-regional trade, identifying tariff reductions

and trade facilitation measures as key drivers of increased trade among member countries. Hapsari and Mangunsong (2006) focused on the effects of AFTA on trade flows among member countries, highlighting the role of tariff reductions in boosting trade volumes. Siah et al. (2009) explored ASEAN economic integration and its impact on intra-ASEAN trade, emphasizing the development of regional production networks and supply chains.

For the Malaysian case study, Rizaudin and Muhd. Ridhuan (2007), Normaz (2008), and Irwan et al. (2015a) investigated the impact of AFTA on Malaysia's trade with ASEAN member nations and discovered that AFTA greatly increased Malaysia's export volumes to ASEAN countries. Nurul (2015) looked at Malaysia's trade relationships with specific EU nations, while Irwan et al. (2015b) and Rafiq et al. (2018) investigated Malaysia's ties with TPP member countries. These non-AFTA studies also show that the EU and TPP have a positive impact on Malaysia's trade with member countries in the respective trade blocs.

Overall, these previous empirical studies offer valuable insights into the selection of trade determinants and the impact of FTAs on intra and inter-regional trade. They highlight the role of FTAs in promoting economic integration and increasing trade among member countries.

Table 3 presents the dependent and explanatory variables identified in previous empirical studies. In the gravity model, total exports, or total trade, can serve as a proxy for the dependent variable. Total trade encompasses both imports and exports. Researchers commonly use national income, distance and FTA as independent variables in gravity model studies. In addition to these main variables, some researchers extend their gravity model specifications with macroeconomic variables such as per capita income, population, foreign investment inflows, and foreign currency rates, to name a few. Table 4 presents the dependent and independent variables used in the Malaysian case gravity model specification.

Gravity Model Specification

In this paper, Tinbergen's (1962) gravity model is enhanced to incorporate trade determinants identified in previous research and economic variables that are pertinent to Malaysia international trade landscape. The augmented Malaysia-CPTPP gravity model, utilizing a static framework, is expressed as Equation 1.

$$\ln TT_{ijt} = \beta_0 + \beta_1 \ln (GDP_{it} * GDP_{jt}) + \beta_2 \ln FDI_{ij} + \beta_3 ER_{ijt} + \beta_4 BOR_j + \beta_5 LAN_{ijt} + \beta_6 CPTPP + \beta_7 ASEANFTA + \beta_8 NAFTA + \epsilon_{ijt} \quad [1]$$

where:

- TT_{ijt} = Malaysia's total trade (export plus import) with CPTPP member countries;
- GDP_{it} = Gross Domestic Product of Malaysia (i);
- GDP_{jt} = Gross Domestic Product of CPTPP member countries (j);
- $GDP_{it} * GDP_{jt}$ = summation of Malaysia and CPTPP member countries' GDP
- FDI_{ij} = CPTPP member countries' FDI inflows into Malaysia;
- ER_{ijt} = Malaysia's nominal foreign exchange rate with CPTPP member countries (in United States Dollar);

- BOR_{ijt} = BORDER_{ijt} = a dummy variable representing whether Malaysia shares a border with a member country. It takes a value of 1 if there is a shared border and 0 if there is no shared border;
- LAN_{ijt} = a dummy variable representing whether Malaysia shares a common language (Malay) with a member country. It takes a value of 1 if there is a common border and 0 if there is different language;
- CPTPP membership is represented by a dummy variable that takes a value of 1 if the country is a member of the CPTPP and 0 if it is not.
- ASEANFTA = The participation of CPTPP member countries in ASEAN-based FTAs or AFTA is represented by a dummy variable. The variable is set to 1 if the country is a member of the ASEAN-based FTAs or AFTA, and 0 if it is not.
- NAFTA = NAFTA consisting of the US, Canada, and Mexico. A dummy variable with a value of 1 represents CPTPP countries that are NAFTA members, and a value of 0 represents countries that are not NAFTA signatories.

The variables chosen for the gravity model are determined by theoretical principles and past empirical research. Key variables such as GDP, distance, and FTAs play a vital role in explaining trade patterns. Other explanatory variables, such as economic factors, shared language, colonial history, and common borders are also significant in capturing contemporary trade dynamics. Incorporating these variables allows for a more thorough analysis that takes into account cultural, historical, and institutional factors influencing bilateral trade flows. Table 5 shows the expected coefficients for the trade gravity model estimation.

Table 3. Selected dependent and independent variables in gravity model specification

| | Liaqat (2017) | Zhao (2020) | Tsang & Shakur (2017) | Nguyen & Henry (2016) | Ha & Lee (2019) | Hoan (2020) | Le (2021) | Trung (2009) | Hapsari and Mangunsong (2006) | Sia et al. (2009) |
|-----------------------|------------------|----------------|-----------------------------|-----------------------------|--------------------|----------------|--------------|---------------------------|-------------------------------------|-----------------------|
| Unit of Analysis | | | | | | | | | | |
| – Trading blocs | TPP | TPP | TPP | TPP | CPTPP | CPTPP | CPTPP | AFTA | AFTA | AFTA |
| – Impacted Country | Canada | US | New Zealand | Vietnam | Vietnam | Vietnam | Vietnam | AFTA, EU, NAFTA, MERCOSUR | AFTA member countries | AFTA member countries |
| Dependent variables | | | | | | | | | | |
| – Total Exports | √ | — | — | √ | √ | √ | — | √ | √ | √ |
| – Total Trade | — | √ | √ | — | — | — | √ | — | — | — |
| Independent Variables | | | | | | | | | | |
| – GDP | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ |
| – DIST | √ | √ | √ | √ | — | — | √ | √ | — | √ |
| – FTA (dummy) | √ | √ | √ | √ | — | √ | — | √ | √ | √ |
| – GDPpc | — | — | — | — | — | √ | — | — | √ | √ |
| – POP | — | — | √ | √ | — | √ | √ | √ | √ | — |
| – FDI | — | — | — | — | — | √ | — | — | — | — |
| – X | — | — | — | — | √ | — | — | — | — | — |
| – ER | — | — | — | √ | √ | √ | — | √ | — | — |
| – OPEN | — | — | — | — | — | — | √ | — | — | — |
| – TAR | — | — | — | — | √ | √ | √ | — | √ | — |
| – SIM | — | — | √ | √ | — | — | — | — | — | — |
| – END | — | — | — | √ | — | — | — | — | √ | — |
| – XSIM | — | — | — | — | — | — | — | — | √ | — |

| | Liaqat (2017) | Zhao (2020) | Tsang & Shakur (2017) | Nguyen & Henry (2016) | Ha & Lee (2019) | Hoan (2020) | Le (2021) | Trung (2009) | Hapsari and Mangunsong (2006) | Sia et al. (2009) |
|-----------|------------------|----------------|-----------------------------|-----------------------------|--------------------|----------------|--------------|--------------|-------------------------------------|----------------------|
| - LSCI | — | — | — | — | — | — | √ | — | — | — |
| - BOR | — | — | — | — | — | — | — | — | √ | — |
| - LAN | √ | — | √ | — | — | — | — | √ | √ | — |
| - POL | — | √ | — | — | — | — | — | — | — | — |
| - LL | — | — | — | — | — | — | — | — | √ | — |
| - IS | — | — | — | — | — | — | — | — | √ | — |
| - TC / TD | — | — | — | — | — | — | — | — | √ | — |
| - CRI | — | — | — | — | — | — | — | — | — | √ |

Notes: — = not applicable; GDP = Gross Domestic Product; DIST = Distance; POP = Population FTA= Free Trade Agreement; GDPpc=Gross Domestic Product per capita; FDI=Foreign direct investment; X=export to member countries; ER=Foreign exchange rate; OPEN=Trade openness; TAR=Tariff Level; SIM=Economic size similarity; END=Relative country endowment; XSIM=Export Similarity Index, LSCI=Transport Connection Index; BOR=Border proximity; LAN=Language; POL= Political and military alliance, LL=Landlocked country; IS=Island; TC/TD=Trade Creation or Trade Diversion; CRI=Regional economic or financial crises

Source: Compiled by Authors

Table 4. Malaysian case studies: selected dependent and independent variables in gravity model specification

| | Rizaudin & Muhd. Ridhuan (2007) | Normaz (2008) | Nurul (2015) | Irwan et al (2015a) | Irwan et al (2015b) | Rafiq et al. (2018) |
|------------------------------|---------------------------------------|---------------|--------------|------------------------|------------------------|------------------------|
| Dependent Variables | | | | | | |
| - Total Exports | — | √ | — | √ | √ | √ |
| - Total Trade | √ | — | √ | — | — | — |
| Independent variables | | | | | | |
| - GDP | √ | √ | √ | √ | √ | √ |
| - DIST | √ | √ | √ | √ | — | √ |
| - POP | √ | — | √ | √ | — | √ |
| - FTA | √ | √ | √ | √ | √ | √ |
| - GDPpc | — | — | — | — | — | √ |
| - ER | — | — | √ | √ | √ | √ |
| - Price | — | — | — | — | √ | — |
| - OPEN | — | — | — | — | √ | — |
| - CPI | — | — | — | √ | — | — |
| - END | — | √ | — | — | — | — |

Notes: — not applicable; GDP = Gross Domestic Product; DIST = Distance; POP = Population FTA= Free Trade Agreement; GDPpc=Gross Domestic Product per capita; ER=Foreign exchange rate; Price= Inflation Rate; OPEN=Trade openness; CPI = Corruption Perception Index; END=Relative country endowment

Source: Compiled by Authors

Table 5. Expected Result on Malaysia's Total Trade by Independent Variables

| Independent Variables/Trade Determinants | | Expected Results on Malaysian Total Trade (TTijt) |
|--|-------------|---|
| 1. | GDPit*GDPjt | + |
| 2. | FDIijt | + |
| 3. | FOREXijt | + or — |
| 4. | BORDERijt | + |
| 5. | LANGijt | + or — |
| 6. | CPTPP | + |

| Independent Variables/Trade Determinants | | Expected Results on Malaysian Total Trade (TT _{ijt}) |
|--|----------|--|
| 7. | ASEANFTA | + |
| 8. | NAFTA | — |

Notes: + positive; — negative

RESULT AND DISCUSSION

Table 6 presents the correlation matrix for the variables in the Malaysia-CPTPP gravity model. A strong correlation of 0.8275 between ITT and LFDI suggests that higher FDI inflows from CPTPP member countries are closely linked to an increase in total trade between Malaysia and these nations. The correlation between ITT and LGDP is moderate at 0.4397, indicating that while Malaysia's GDP growth contributes to increased trade with CPTPP members, the effect is less pronounced than that of FDI. In contrast, a negative correlation of -0.2348 between NAFTA and ITT suggests that NAFTA negatively impacts Malaysia's trade with CPTPP member countries, likely due to competitive pressures. Additionally, trade with border-sharing countries shows a modestly positive correlation at 0.2639. The FOREX variable exhibits weak or negative correlations with ITT and other variables, indicating that exchange rate fluctuations may have a limited impact on trade flows.

Table 6: Correlation Matrix

| | ITT | LGDP | LFDI | FOREX | BORDER | CPTPP | AFTA | NAFTA |
|--------|----------|----------|----------|----------|----------|---------|----------|---------|
| ITT | 1.00000 | | | | | | | |
| LGDP | 0.43970 | 1.00000 | | | | | | |
| LFDI | 0.82750 | 0.44540 | 1.00000 | | | | | |
| FOREX | 0.04060 | -0.04250 | -0.17850 | 1.00000 | | | | |
| BORDER | 0.26390 | -0.61700 | 0.18730 | -0.08990 | 1.00000 | | | |
| CPTPP | 0.21970 | 0.18440 | 0.07190 | 0.19030 | -0.00770 | 1.00000 | | |
| AFTA | 0.54560 | 0.01620 | 0.28900 | 0.17590 | 0.39640 | 0.34880 | 1.00000 | |
| NAFTA | -0.23480 | 0.21460 | -0.23900 | -0.05930 | -0.23090 | 0.03650 | -0.29760 | 1.00000 |

Table 7 presents the regression analysis results for the Malaysia-CPTPP model, using pooled ordinary least squares (POLS), random effects (RE), and fixed effects (FE) models. Notably, the fixed effects (FE) results are excluded from the analysis due to inconsistencies with the POLS and RE models, arising from the omission of specific trade regressors.

The Hausman test was conducted to determine whether the FE or RE model is more suitable for the data. However, the test statistic ($\chi^2(6) = -77.63$) is negative, rendering the Hausman test results invalid. As a result, the usual criteria for selecting between the FE and RE models cannot be applied in this case.

The Breusch-Pagan Lagrangian Multiplier (LM) test strongly favors the RE model over the POLS model, although certain trade regressors, particularly CPTPP and NAFTA, exhibit coefficient signs under the RE model that contradict expectations in the gravity model of trade. This highlights a common challenge in econometric analysis: balancing the choice between statistical model appropriateness, as indicated by tests, and theoretical consistency, as reflected in the signs and magnitudes of the coefficients.

We selected the POLS model over the RE model because it better reflects global trade trends and maintains theoretical consistency with regional economic integration principles and the gravity model of trade. The POLS model provides more practical insights into Malaysia's foreign trade dynamics at both regional and global levels. Additionally, the overall R^2 for the POLS model is 0.85, which is significantly higher than the RE model's 0.25. This suggests that the POLS model provides a higher level of goodness of fit.

With the exception of CPTPP, all trade regressors are statistically significant at the 1% and 10% levels, and their coefficient signs align with theoretical expectations. Among these, the common border (BORDER) is one of the most influential factors affecting Malaysia's trade with CPTPP member countries. Most CPTPP members are geographically close to Malaysia, particularly Singapore and Brunei. Shared borders typically lead to higher volumes of bilateral trade due to reduced logistics costs, which is evident as Singapore and Brunei are among Malaysia's primary trading partners. Vietnam and Japan, with moderate maritime distances, also play significant roles in Malaysia's trade, while Australia and New Zealand, being more distant, contribute less to trade volume. The countries farthest from Malaysia are Chile, Peru, Canada, and Mexico. Distance, along with national income, is a key explanatory variable in the gravity model specification.

Table 7. Pooled OLS, Random Effects and Fixed Effect Estimations
Dependent Variable: Total Trade

| Trade Determinants | Model 1- POLS | Model 2 - RE | Model 3- FE |
|-----------------------|--------------------------|-----------------------|-------------------------|
| $GDP_{it} * GDP_{jt}$ | 0.6936072* (0.000) | 1.165059* (0.000) | 1.462841* (0.000) |
| FDI | 0.3256748* (0.000) | 0.1702741* (0.000) | 0.049385* (0.004) |
| FOREX | 0.0003763* (0.000) | 0.0004235* (0.000) | 0.0006806* (0.009) |
| BORDER | 1.51354* (0.000) | 2.127122* (0.000) | (omitted) — |
| CPTPP | 0.462129 (0.787) | -0.0826013 (0.528) | -0.1810788** (0.028) |
| ASEANFTA | 0.7416111* (0.000) | 0.5165* (0.000) | 0.3898861* (0.000) |
| NAFTA | -0.3061004*** (0.078) | 0.1182854 (0.499) | 0.5422924* (0.000) |
| Constant | -3.209453 | -13.72158 | -19.0889 |

| | | | |
|-----------------------------|--------|--------|--------|
| Observation | 212 | 212 | 212 |
| Adjusted R ² | 0.8437 | — | — |
| R ² | 0.8489 | — | — |
| Within R ² | — | 0.8469 | 0.8894 |
| Between R ² | — | 0.7807 | 0.3534 |
| Overall R ² | — | 0.7820 | 0.2520 |
| Breusch and Pagan (LM test) | | 0.000 | |
| Hausman Test | | | -77.63 |

Notes: — not applicable; rho (ρ) value is reported in parentheses; POLS – pooled ordinary least square; RE – random effects; FE – fixed effects

significance at *1%, **5% and ***10% level of significance

The ASEAN-based Free Trade Agreements (ASEANFTA) significantly influence Malaysia's trade with CPTPP member countries, ranking as the second most important trade regressor. Following closely are total joint income between Malaysia and CPTPP member countries ($GDP_{it} * GDP_{jt}$), foreign direct investment inflows to Malaysia (FDI), NAFTA, and the foreign exchange rate (FOREX). Among these trade determinants, FOREX exhibits a weaker impact on Malaysian trade, as evidenced by its lower coefficient values. While the coefficient sign of the CPTPP bloc aligns with the theory, it lacks statistical significance to impact Malaysia's trade with CPTPP member countries.

ASEANFTA, have a significant impact on Malaysia's trade with CPTPP member countries. This variable is statistically significant ($p < 0.01$), indicating that the involvement of CPTPP member countries in AFTA and other ASEAN-based FTAs boosts Malaysia's trade by approximately 74%. Brunei, Singapore, and Vietnam are CPTPP member countries that are also part of AFTA, while ASEAN-based FTAs extend to Japan, Australia, and New Zealand. The trade and investment liberalization efforts under AFTA and other ASEAN-based FTAs have had a significant impact on Malaysia's trade with CPTPP member countries. Although other CPTPP members—Canada, Chile, Mexico, and Peru—have not established FTAs with ASEAN, Malaysia has been trading with these nations since the 1960s, positioning them as emerging markets for Malaysia following the CPTPP's inception. Notably, Malaysia's bilateral FTA with Chile, established in 2010, further strengthened its trade relationships with CPTPP member countries as a whole.

The combined GDP of Malaysia and the CPTPP countries ($GDP_{it} * GDP_{jt}$) has a statistically significant effect on trade ($p < 0.01$), aligning with traditional gravity models where economic size is a key determinant. With a coefficient of 0.6931, a 1% increase in $GDP_{it} * GDP_{jt}$ corresponds to a 0.7% increase in trade between Malaysia and CPTPP member countries, assuming other factors remain constant. The impact of FDI on Malaysian trade is statistically significant ($p < 0.01$), although it is less pronounced compared to variables such as BORDER, ASEANFTA, and $GDP_{it} * GDP_{jt}$. Specifically, a 1% increase in FDI inflows from CPTPP countries into Malaysia correlates with a 0.3% rise in trade, assuming other factors remain constant. Japan and Singapore are the leading investors in Malaysia, with most of their multinational corporations leveraging the country as an international production hub for exporting goods to third countries. This underscores the trade-creating effect of FDI in the

Malaysian economy. The coefficient for FOREX is very small, indicating that fluctuations in the foreign exchange rate have a minimal effect on trade flows. A 1% rise in the exchange rate results in a mere 0.0004% increase in trade, a statistically significant finding but of little trade consequence.

The NAFTA coefficient is negative (-0.3061) and statistically significant ($p < 0.1$), indicating a substantial adverse effect on Malaysian trade. Established in 1992, NAFTA includes the United States, Canada, and Mexico. The creation of NAFTA, primarily driven by the United States, has led to trade diversion, where trade flows become more concentrated within the North American region, to the detriment of trade with Malaysia. NAFTA competes with the CPTPP and ASEAN-based free trade agreements for dominance in the global trade market. The CPTPP, established in 2018, does not show statistical significance despite having a coefficient sign that aligns with the theory. This is likely due to the recent establishment of the CPTPP, with the spillover effects of trade and investment liberalization not yet being fully realized by Malaysia and other member countries. In contrast, ASEAN-based FTAs, which began the process of liberalization in the 1990s, may have had more time to demonstrate significant impacts.

CONCLUSION

The gravity model results indicate that $GDP_{it} * GDP_{jt}$ and FDI are significant drivers of Malaysia's trade with CPTPP member countries. The positive and significant coefficients suggest that as economic size and investment increase, trade also rises. BORDER has a substantial impact on Malaysian trade, as neighboring countries engage in more robust trade due to lower logistics costs. In contrast, FOREX exerts only a weak influence on Malaysian trade. The inclusion of regional agreements like ASEANFTA and NAFTA also plays a crucial role in enhancing trade flows. However, NAFTA negatively affects Malaysian trade through trade diversion. The CPTPP, on the other hand, has not yet significantly impacted Malaysian trade, as CPTPP members, including Malaysia, have not fully experienced the spillover effects of market liberalization. Similar to ASEAN-based FTAs, Malaysia is likely to experience the benefits of CPTPP spillovers in the medium to long term.

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019-012

ROLE OF FINTECH IMPLEMENTATION IN WAQF MANAGEMENT FOR SUSTAINABILITY OF SOCIO-ECONOMIC DEVELOPMENT IN MALAYSIA

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ABSTRACT

Fintech is a contemporary technological tool that can be extremely important in Waqf management to ensure that Waqf assets are innovative and in line with current technology for Waqf development and socioeconomic sustainability. Waqf management is a crucial kind of management that demands creativity and adherence to global technological advancements. To facilitate Waqifs' (donors') ways of participation in Waqf institutions, Fintech must be implemented into Waqf management in Malaysia. Because Malaysia is one of the Muslim nations that has advanced technologically in comparison to other Muslim nations. This study aims to investigate the significance of Fintech application in Waqf management to create and enhance socioeconomic conditions in Muslim countries particularly in Malaysia. This is why integrating Fintech into Malaysia's Waqf management is essential for improving the nation's socioeconomic growth, Waqf management for the long-term viability of its institutions and economy, poverty alleviation, and social welfare. To facilitate contributions from participants in this important endowment for Muslims nationwide, the study will use a qualitative methodology to analyse and examine the application of Fintech, robots' advisors, and robots' receptionists in Waqf management based on principles of Islamic law. This will ensure that a significant number of people participate in Waqf institutions. The validity of Fintech application in Waqf management will be examined in this study from the standpoint of Islamic law and contemporary *Maqasid al-Shari'ah's* point of view. According to the study, Waqf management and the sustainability of the nation's socioeconomic development may depend heavily on the usage of Fintech, which makes it imperative that Malaysia adopts this technology to achieve financial inclusion. Fintech's use in Waqf administration would thereby transform and enhance the welfare of Waqf recipients as well as the lives of Waqf institutions and participants. To gain a comprehensive understanding of the use of Fintech in Waqf management for socioeconomic



development and the reduction of poverty in Malaysia, the study recommends conducting a quantitative search on the subject.

Keywords: Fintech Implementation, Waqf Management, Socio-Economic Development, Sustainability.

026-021

HOW TO SURVIVE IN PANDEMIC? STUDY CASE IN ENTERPRISES

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ABSTRACT

The COVID-19 pandemic in Indonesia has resulted in a contraction or decline in economic growth. The government has taken various measures to prevent the spread of the coronavirus in Indonesia, one of which is by implementing Large-Scale Social Restrictions (PSBB) in several areas in Indonesia that have high cases of coronavirus infection. The closure of public facilities that occurred, such as the closure of malls in Surabaya City, meant that Micro, Small and Medium Enterprises (MSMEs) could not sell and closed their shops for several months during the PSBB. There are two objectives of this study, first to determine the difference in MSMEs income before and during the COVID-19 pandemic using the identifiable sample T-test. Second, to analyze the factors that influence MSMEs income during the COVID-19 pandemic using logistic regression. In addition, this research is expected to be able to encourage the creation of Sustainable Development Goals (SDGs). The data sources used are primary data obtained through surveys and interviews. Respondents are MSMEs fostered by the Surabaya City Government who have physical stores in malls/markets in Surabaya and/or have digital stores. The results of the analysis show that there is a difference in income before and during the COVID-19 pandemic and the logistic regression analysis states that the independent variables that have a significant effect on MSMEs resilience are the type of store, age of the owner, amount of business capital, and constraints.

Keywords: COVID-19, Digital, MSMEs, Resilience, SDGs.

030-022

THE MEDIATING ROLE OF PROTEIN CONSUMPTION IN THE INCLUSIVE ECONOMIC DEVELOPMENT – STUNTING PREVENTION RELATIONSHIP: AN INDONESIAN CASE

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ABSTRACT

The impaired growth and development of children or stunting impacts long-term productivity growth and GDP. Stunting prevalence is also an indicator of general well-being. Although Indonesia's stunting has shown a declining trend, it is currently still at a relatively high level. Indonesia's target areas of inclusive development include economic growth, inequality and poverty reduction, and improvement of access and opportunity to the less advantaged. However, the mediating effect of protein consumption has yet to be investigated. This study aims to examine the role of protein consumption in mediating the effect of inclusive economic development on stunting prevention in Indonesia. We used a panel data set covering thirty-four Indonesian provinces for the period from 2018 to 2021 sourced from the Central Agency for Statistics, and the National Development Planning Agency. We applied a retrospective path analysis, in which the causal relationship between the economic development to the stunting prevention is estimated through the mediating variable of protein consumption. The results show that economic development significantly increases protein consumption. The increase in protein consumption further enhances stunting prevention. The mediation analysis shows that protein consumption significantly improves the effect of inclusive development on overall stunting prevention by 7.96 points, while the mediating effects across provinces vary. Therefore, the Indonesian government should allocate more funding on the reduction of stunting and expand the coverage of long-term stunting prevention program more proportionally across provinces.

Keywords: Protein Consumption, Stunting, Inclusive Development, Productivity, Indonesia.

035-025

THE IMPACT OF ECONOMIC AND POLITICAL FACTORS ON FOREIGN DIRECT INVESTMENT IN NEPAL

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ABSTRACT

The main aim of this research paper is to identify the main economic and political determinants of foreign direct investment in Nepal. Various factors are quoted in the literature with regards to the attraction of FDI inflow into the country. In this study some other additional variables are considered including control of corruption, institutions and administrative barriers, and central bank independence. In addition, political stability is used to moderate the impact of Institutions and Administrative Barriers towards the inwards FDI in Nepal. Secondary sources are used for data collection purpose that includes World Bank, IMF, and stock exchange office in Nepal. Time series stationary tests are used to ensure that the secondary data is reliable and valid. In order to investigate the cointegration vector among the variables, Johansen Juselius cointegration approach is implemented. Vector error correction model is implemented to identify the long-run relationship between the variables. The empirical results reveal several notable outcomes. In the long run, gross fixed capital formation, inflation, tax, and administrative barriers (proxy by rule of law) have a negative impact on inward FDI. While a positive relationship was found between exchange rate, interest rate, control of corruption, central bank independence, and inward FDI in Nepal.

Keywords: FDI, Central Bank Independence, Corruption, Inflation, Tax.

037-027

ASSESSING FINANCIAL LITERACY AMONG UNDERGRADUATE STUDENTS: CASE STUDY OF BUSINESS SCHOOL UNIKL

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ABSTRACT

This study assesses financial literacy levels among young people, motivated by the restructuring of Employees Provident Fund accounts in May 2024 to address current life cycle needs. Notably, over half of Malaysia's bankruptcies in the past five years involved individuals aged 25 to 44, with personal loans accounting for nearly half of these cases. The primary objective is to gauge the financial literacy of undergraduate students, defined as their understanding of money management and allocation for wealth creation. The study focuses on four key areas: budgeting, savings, investment, and debt management. Despite higher education and information access, young people in urban areas, especially undergraduates who are about to enter the workforce, seem to be lacking financial awareness and money management skills. This study utilizes Lusardi and Mitchell's Financial Literacy Questions to develop a set of 20 questions, scoring between 0 and 80, to rank the financial literacy levels of UniKL Business School students. A structured self-administered questionnaire is designed to quantitatively measure baseline financial literacy in the four specified knowledge areas. The primary respondents are undergraduate students from UniKL Business School, located in the heart of Kuala Lumpur. Collected data scores below 60 reflect a moderate financial literacy level contributing to the measurement of financial literacy level among young Malaysians.

Keywords: Financial Literacy, Budgeting, Saving, Investing, Debt Management.

044-034

DIGITAL COMPETENCES AND ITS INFLUENCE ON MOOC ACCEPTANCE AMONG CHINESE TERTIARY VOCATIONAL STUDENTS

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ABSTRACT

Due to its advantages, Massive Open Online Courses (MOOC) has experienced significant development worldwide. The fast rise of MOOCs in China, however, has been accompanied by significant challenges, in both high dropout and non-completion rates, caused by non-acceptance, in both general and vocational education. One key factor is students' digital competences. After review of present literature, a gap is revealed in identifying the impact of digital competences on vocational students' acceptance of MOOC. This study aims to examine the impact of digital competences on vocational students' acceptance of MOOC in Ningbo, China within the framework of the Unified Theory of Acceptance and Use of Technology, or UTAUT for short. Based on DigComp 2.0, this study for the first time includes vocational elements into the digital competences construct to better suit the Chinese vocational context. Due to the complexity of the concept and the structural model, the variable of digital competences operates as a second-order reflective construct, with 7 first-order reflective constructs. A survey was then administered to 528 students with MOOC experience in 6 tertiary TVET institutions in Ningbo District, China, with data subjected to SPSS and structural equation modelling analysis using SmartPLS 4.0. R square of 0.603 suggests a satisfactory explanatory power for the overall model, and p values of 0.000 for total indirect effects between digital competences and MOOC acceptance indicate statistical significance mediated by Performance Expectancy and Effort Expectancy.

Keywords: Digital Competencies, MOOC Acceptance, Vocational Students, UTAUT.

INTRODUCTION

Massive Open Online Courses (MOOCs), which are recognized as one way to potentially address challenges of inequality, regardless of time and location, have gained good growth momentum in recent years due to the lack of high-quality teachers and teaching resources in Technical and Vocational Education and Training (TVET) and the inequality in education. (Jung & Lee, 2018; Kizilcec et al, 2017).

The momentum for MOOC expansion has been robust globally. As per the data provided by Class Central (Dhawah, 2020), there were 180 million MOOC users worldwide in 2020. By November 2022, more than 400 million students had registered in China alone for the more than 6,190 courses that had been made available to the public on MOOC platforms.

Despite the benefits and rapid expansion, MOOC faced enormous obstacles. According to He and Li's (2023) study, vocational college students typically devote less than two hours per week to MOOC study. Time perception, attitude, course quality, system design, interaction, language competency, and teacher impact are factors that affect MOOC learning and adoption (Ucha, 2023; Meet, 2022; Tao, 2019; Razami et al, 2020; Teo, 2019). Students' competencies have also been found to be important factors influencing MOOC acceptance in addition to external factors like course quality and system design; one example of this is the impact of digital competences on digital learning (Scheel, 2022). Digital competences, as mediated by performance expectancy and effort expectancy in the UTAUT framework, had a statistically significant impact on the usage of digital technology by administrative staff in higher education, according to Kabakus et al. (2023).

In China, MOOC in TVET have faced generally three problems, i.e., low MOOC acceptance, research gaps on digital competences featuring TVET-specific skills and research gaps on effect of digital competences on MOOC acceptance for Chinese TVET with performance expectancy and effort expectancy as mediators.

Despite all of the positive outcomes, MOOCs have not been well received by the scientific and academic community. This is mostly because of their poor completion rates (Romero-Rodriguez et al., 2020) and low student engagement levels as a result of high dropout rates (SU, 2019). According to the number of registered participants, MOOC completion rates typically range from 5% to 8% on average (Osuna-Acedo et al, 2018). Just 5% of students finish courses on edX, while 4.5% finish courses on XuetangX, one of the largest MOOC platforms in China, according to Feng et al. (2019). According to data from Coursera, the completion rate is only 2% (Aldowah et al, 2020).

Research gaps on digital competences featuring TVET-specific skills have also been demonstrated. Digital competences are referred to as “the confident, critical and responsible use

of the technologies from the society of information for work, entertainment and education” (European Commission, 2018).

Numerous frameworks have been developed to investigate this key concept. DigComp 2.0 version was published in 2017, dividing digital competences into 5 areas and 21 items, the 5 areas including Information and Data Literacy, Communication and Collaboration, Digital Content Creation, Safety and Problem Solving (Carretero et al, 2017). DigComp 2.0 had been criticized for being too broad to be suited for the specific contexts of each nation on the European continent (Brown, 2018).

Based on the DigComp framework, the UNESCO Digital Literacy Global Framework (DLGF) totalled 7 main areas and 26 items, by adding two more areas i.e., devices and software operations, and career-related competences, the latter referring to the ability to utilise specialised digital technology and comprehend, assess, and appraise specialised data, information, and digital content within a certain domain (Law et al, 2018), which targeted public citizens. Digital competences have developed into a set of advanced abilities, encompassing complex problem-solving, innovation and creation of knowledge contents.

All these above-mentioned frameworks, however, lacked vocational elements specially targeted to vocational students, rather than public citizens. According to the Standards of Digital Campuses for Vocational Colleges in China, SDCVC for short (MoE, 2020), vocational competences is a key component within TVET students’ information and technology literacy. 5 main areas in student development are mapped out in the document, including information awareness and attitude, information knowledge and skills, information thinking and behavior, professional thinking and ability in information technology, and information social responsibility, with sustained and lifelong learning and development contained (MoE, 2020).

This study developed a framework for digital competences that integrates vocational competences appropriate for the Chinese vocational context, based on DigComp 1.0, 2.0, UNESCO DLGF, and SDCVC. The framework is divided into seven domains: (1) Information and Data Literacy; (2) Communication and Collaboration; (3) Digital Content Creation; (4) Safety and Security; (5) Problem-solving; (6) Analyzing and Reflecting; and (7) Vocational Competences.

Research gaps on effect of digital competences on MOOC Acceptance for Chinese TVET have also been discovered, with Performance Expectancy and Effort Expectancy as mediators.

Venkatesh et al. (2003) proposed UTAUT, arguing that factors such as Performance Expectancy (PE) and Effort Expectancy (EE) could explain technology acceptance. These two constructs in the context of technological acceptance have been validated by numerous studies (YU et al., 2021; Li & Zhao, 2021; Tamilmani et al., 2021). For example, Li & Zhao's research (2021) used 312 valid samples to validate the hypothesis, and the results showed that the UTAUT model's

Performance Expectancy and Effort Expectancy components had a significant positive impact on university students' sustained intention to use MOOCs. According to Nikou and Aavakare (2021), there is a favorable relationship between digital competency and effort expectancy when it comes to using digital technology for teaching. The results of the SEM analysis show that there are partial mediations at work, with performance expectancy and effort expectancy acting as mediating factors between digital literacy and intention to use. Research gaps, however, remain in the influence of digital competences on MOOC Acceptance under the context of Chinese TVET.

This study is aimed at developing the digital competences framework with TVET-specific construct and identifying the correlations between digital competences (DC) as second-order construct and its seven components, Information and Data Literacy (IDL), Communication and Collaboration (CC), Digital Content Creation (DCC), Safety and Security (SS), Problem Solving (PS) and Analysing and Reflecting (AR) and Vocational Competences (VC). The study also aimed to identify the effect of digital competences (DC) on students' MOOC Acceptance in Chinese tertiary TVET, and the mediating role of Performance Expectancy (PE), Effort Expectancy (EE).

Analysis of all the major frameworks on digital competences, including DigComp 2.0, UNESCO DLGF, revealed a lack of TVET-specific competences targeted at vocational students. Therefore, this study has complemented the concept of digital competences with vocational elements specially aimed at students in TVET institutions.

This study is original in the sense that it has contributed vocational- elements- integrated digital competences to the large body of literature and research on its composition as well as its impact on technology acceptance as it includes vocational elements to suit the requirements of tertiary-TVET students in Ningbo, China. Research findings also suggest that learners' digital skill levels should be considered when planning for the online studies.

The study has also filled in the gap in investigating the effects of digital competences on MOOC Acceptance under the context of Chinese TVET, with UTAUT constructs (Performance Expectancy and Effort Expectancy) as mediators.

In terms of theoretical and practical contributions, this research is noteworthy. The study makes a significant contribution to the framework of digital competencies by incorporating components relevant to TVET and by adding a learner variable to the UTAUT model, which enhances its completeness and increases its ability to explain variance in the construct. The introduction of digital competencies focused on TVET and an investigation of its relationship to MOOC Adoption will have real-world effects for China's vocational trainers, institutions of vocational education, and policymakers. This paradigm can be used by Chinese tertiary TVET stakeholders to defend and explain the tactics and actions taken to increase MOOC attractiveness. The

methodology can also be used by MOOC designers and implementers to create platforms and courses that are thought to be helpful and user-friendly by vocational students.

On a practical level, this research shall be useful in helping policy-makers, educators as well as MOOC platform developers understand the relevance of digital competence and UTAUT constructs in improving MOOCs acceptance through measures such as designing user-friendly MOOC systems, making more useful videos and resources suited to the level of vocational college students in China.

METHODS

This empirical research adopts quantitative method to develop and test the theoretical framework. UTAUT model constructs and structural equation model are frequently applied in the research into the interaction between constructs in MOOC Acceptance. Literature review is firstly conducted to find out research gap in terms of MOOC Acceptance for tertiary-TVET students in China, under the theory of UTAUT. Survey questionnaire is then applied as the main means of gathering data to prove the model developed and eventually analysed using SPSS and SmartPLS.

According to statistics, there is a total population of 58,722 full-time tertiary TVET students in Ningbo District as of 2022 (Zhejiang Provincial Department of Education, 2023). Data were collected from online questionnaire distributed to 6 tertiary TVET institutions in Ningbo District. Afterwards, SPSS 27 software was used to test the normality of the distribution of data. This was followed by reliability and validity analysis and modelling based on SmartPLS 4.0 software (Ringle et al, 2022), where structural equation modelling analysis was conducted for validating the explanatory power of the model structure. Through the model, the hypotheses were tested.

RESULT AND DISCUSSION

Descriptive statistics provide a detailed look into the overall situation of the data in the study, including total number of respondents, minimum value for each item, maximum value for items, mean, standard deviation, variance and Skewness and Kurtosis. The Skewness values for all items are within the range of -2 to 2, and Kurtosis in the range of -3 to 3.

Reliability statistics on all latent variables demonstrate 7 variables exceeding 0.8 and 4 variables close to 0.8, indicating satisfactory reliability, as shown in Table 1.

Validity was also tested on the data with AVE, also shown in Table 1.

Table 1 Reliability and validity statistics

| Construct | Cronbach's alpha | Average variance extracted (AVE) |
|-----------|------------------|----------------------------------|
| IDL | 0.785 | 0.539 |
| CC | 0.812 | 0.518 |
| DCC | 0.770 | 0.685 |
| SS | 0.769 | 0.592 |
| PS | 0.840 | 0.610 |
| AR | 0.785 | 0.536 |
| VC | 0.795 | 0.620 |
| DC | 0.940 | 0.350 |
| PE | 0.916 | 0.800 |
| EE | 0.843 | 0.864 |
| MA | 0.941 | 0.849 |

This study found all 11 variables meet the standards of 0.5 in AVE value, except DC at 0.350. This can be justified as the vast majority of the constructs are meeting the requirements and DC is analysed as a second-order construct with repeated items.

Besides AVE, Heterotrait-Monotrait (HTMT) has also been investigated to look at discriminant validity of data. According to Ramayah et al. (2018), a discriminant validity value beyond 0.85 or 0.90 is considered a problem. The study evaluated all variables in the measurement model for discriminant validity using Ramayah et al (2018) HTMT threshold of 0.90. The table below demonstrated satisfactory results in discriminant validity.

Table 2 Heterotrait-Monotrait (HTMT) matrix

| Variable | MA | CC | DCC | EE | IDL | PE | PS | RA | SS | VC |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----|
| DC | | | | | | | | | | |
| MA | | | | | | | | | | |
| CC | 0.396 | | | | | | | | | |
| DCC | 0.410 | 0.813 | | | | | | | | |
| EE | 0.793 | 0.417 | 0.471 | | | | | | | |
| IDL | 0.357 | 0.828 | 0.615 | 0.344 | | | | | | |
| PE | 0.805 | 0.476 | 0.503 | 0.876 | 0.405 | | | | | |
| PS | 0.520 | 0.727 | 0.774 | 0.587 | 0.590 | 0.591 | | | | |
| RA | 0.294 | 0.420 | 0.459 | 0.361 | 0.356 | 0.403 | 0.673 | | | |
| SS | 0.536 | 0.765 | 0.802 | 0.585 | 0.636 | 0.630 | 0.865 | 0.589 | | |
| VC | 0.626 | 0.616 | 0.686 | 0.756 | 0.511 | 0.796 | 0.799 | 0.686 | 0.772 | |

Based on SmartPLS algorithm calculation, MOOC acceptance has a R square of 0.603, meaning independent variables have a significant level of explanatory power for the dependent variable of MA (Ramayah et al, 2018), which prove that the model works well for investigating the influence of digital competences on MOOC acceptance for Chinese tertiary TVET students.

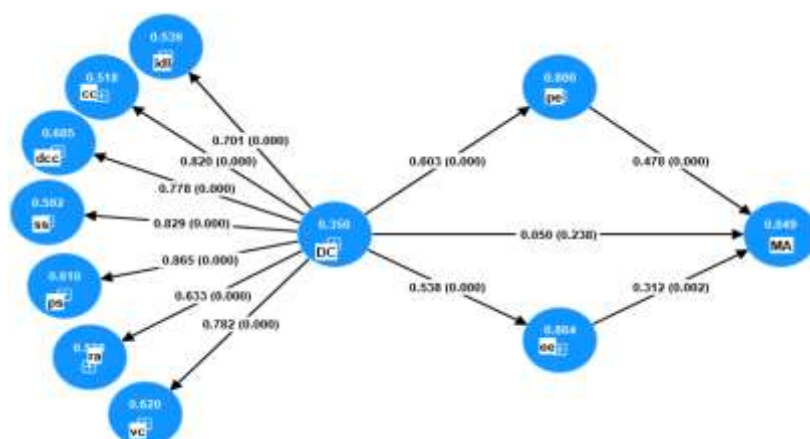


Figure 1 Confirmed structural model with path coefficients and p values

The objective of this study was to examine the impact of digital competences on MOOC acceptance for tertiary TVET students in Ningbo, China under the framework of UTAUT. This research was guided by two research questions. The first question aimed to verify the interrelations between vocational- specific digital competences as a second-order construct and its first-order constructs. The second question was put forward to examine the impact of digital competences on MOOC acceptance mediated by performance expectancy and effort expectancy.

Based on Figure 1, the relationship between digital competences as a second-order construct and its first-order constructs have been verified as statistically significant at 0.000. While the direct effect between digital competences on MOOC acceptance has not been supported with a p value of 0.238, all other relations between digital competences, performance expectancy, effort expectancy and MOOC acceptance are statistically significant at 0.05 level, meaning the effect between digital competences on MOOC acceptance is mediated by performance expectancy and effort expectancy.

CONCLUSION

With a focus on TVET, this study developed a framework for digital competences and verified the significant relationships between digital competences (DC), a second-order construct, and its seven components: information and data literacy (IDL), communication and collaboration (CC), digital content creation (DCC), problem solving (PS), safety and security (SS), analysis and reflection (AR), and vocational competences (VC). The findings in this study are consistent with prior research conducted by Khlaisang & Yoshida (2023) and Tzafilkou et al. (2022). The justification for studying digital competencies as a second-order construct has been supported by Antonietti et al. (2022) and He et al. (2020). Antonietti et al (2022) found that the second-order construct included 6 domain categories: professional engagement, digital resources, teaching and learning, assessment, empowering learners, and enabling learners' digital competence. These domains were represented by a total of 22 items. Subsequently, the researchers performed a second-order confirmatory factor analysis to assess the accuracy of the presumed six-component

framework of digital competence. The study revealed a statistically significant correlation between the second-order construct of digital capabilities and all of its first-order components.

The study also examined and proved the mediating functions of performance expectancy (PE) and effort expectancy (EE) in the relationship between digital competencies (DC) and students' MOOC Acceptance in Chinese tertiary TVET. As can be argued that when students have higher digital competence, they are more likely to understand and appreciate the capabilities and benefits of online learning platforms. Digital competence enhances Performance Expectancy, which in turn increases the acceptance and use of online learning platforms. The mediation occurs because the effect of digital competence on online learning acceptance is channeled through the students' beliefs about the performance benefits of using the platform, consistent with previous research (Jang et al, 2020; Nikou & Aavakare, 2021).

The results of this study on the impact of digital skills on vocational students' acceptance of MOOCs in China have important implications. These findings can provide valuable insights for educational institutions, policymakers, MOOC providers, and vocational training programs, highlighting the need to improve digital competences and promote greater acceptance of MOOCs among vocational students. Efforts should be made to guarantee that every student has equitable access to essential technology resources, such as computers, high-speed internet, and applicable software, regardless of their location, whether on-campus or off-campus. Comprehensive technical support services are available to help students resolve any problems they may face while using MOOCs, hence minimizing obstacles related to the effort required.

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027-035

ENHANCING FINANCIAL SATISFACTION THROUGH ESG FACTORS: EXPLORING THE IMPACT OF VIRTUE ETHICS ON INVESTMENT DECISIONS

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ABSTRACT

Despite the widespread acceptance of Environmental, Social, and Governance (ESG) practices on a global scale, there is a significant gap in research when it comes to understanding the specific effects of ESG components—climate risk, board independence, and human rights—on investor behaviour and financial contentment, especially in emerging markets such as Malaysia. Existing literature frequently fails to consider how these factors impact individual investment decisions, overlooking the intricate relationship between ethical considerations and financial results. Integrating these factors with ethical frameworks in investment decisions still needs to be explored. Notably, the effectiveness of virtue ethics in moderating financial outcomes within ESG investments has yet to be thoroughly examined, presenting a critical research gap. This research aimed to bridge this gap by investigating how ESG considerations impact investor satisfaction in Malaysia, concentrating on climate risk, human rights adherence, board governance independence and their influence on investment decisions. Thi research also examined the moderating role of virtue ethics in shaping financial satisfaction among investors and their investment decisions. Employing a cross-sectional online survey methodology, the analysis involved 105 respondents, utilising Partial Least Squares Structural Equation Modeling (PLS-SEM). The results indicate that increased awareness of climate risks, prioritising human rights, and ensuring board independence enhances financial satisfaction and encourages investment decisions. Moreover, virtue ethics influenced investment decisions significantly but did not moderate the relationship between financial satisfaction and these decisions. The research enriches the stakeholder theory and behavioral finance through an integration approach, offering actionable insights for market participants, corporations, educational bodies, and policymakers to promote ESG awareness and foster sustainable investment practices. This research enhances the comprehension of investment dynamics in Malaysia and provides valuable insights for stakeholders in the financial sector.

Keywords: Climate Risk, Human Rights, Board Independence, Financial Satisfaction, Investment Decisions.

1. Introduction

The widespread adoption of Environmental, Social, and Governance (ESG) practices has become a transformative force in global business operations and is increasingly recognised for promoting sustainable development and competitive advantages (Poniman, 2023). This trend is particularly pronounced in Malaysia, with a substantial commitment from businesses to integrate ESG principles into their strategic frameworks. According to the Malaysian Investment Development Authority (2023), nearly all publicly listed companies have adopted ESG reporting frameworks, a significant rise from previous years, underpinning a broad shift towards responsible business practices. The surge in ESG integration is mirrored by growing global interest in sustainable investments. For instance, recent data highlighted that the volume of assets managed under ESG-aligned investments in Malaysia surged by 70.59% from 2021 to 2022 (Securities Commission Malaysia, 2022a). This reflects a broader investor appetite for ventures that adhere to sustainability principles, bolstered by regulatory measures such as the FTSE4Good Bursa Malaysia Index and related ESG ratings, encouraging transparency and adherence to sustainable practices (Bursa Malaysia, 2022b).

The COVID-19 pandemic has further accelerated the importance of robust ESG frameworks, altering disclosure patterns and intensifying scrutiny on companies' management of environmental and social challenges (Ferriani & Natoli, 2021; Zahid et al., 2023). This period has emphasised the significance of ESG in risk management and resilience building, enhancing investor confidence and driving a deeper integration of ESG considerations into investment analyses and decision-making processes (Rahi et al., 2022). Despite the rapid adoption of ESG practices and their apparent benefits, there is a nuanced landscape of ESG integration within investment decisions, particularly in emerging markets like Malaysia (Wong, 2023). The market trends indicate a growing investor appetite for ESG-aligned investments, evidenced by significant growth in assets under management for sustainable funds (Securities Commission Malaysia, 2022a). This has catalysed many academic interests in understanding the implications of integrating ESG factors into investment decisions (Umar & Gubareva, 2021; Rubbaniy et al., 2022).

While numerous studies have examined the influence of ESG factors on investment decisions, a noticeable gap persists in integrating these factors with the nuanced dimensions of investor behaviour and satisfaction (Naqvi et al., 2020; Fan & Henager, 2022; Sachdeva & Lehal, 2023). Specifically, the synthesis of financial satisfaction with ESG factors still needs to be explored. This gap presents a significant research opportunity, as financial satisfaction profoundly influences investment decisions within the context of ESG considerations. Moreover, the application of virtue ethics in investigating investment decisions has been limited. Existing literature suggests that virtue ethics could profoundly influence investment decisions at both individual and organisational levels (Chan & Ananthram, 2019; Martin, 2022). However, its utilisation in understanding the impact of ESG factors on investment decisions, particularly among investors in multi-regional settings like Malaysia, is notably lacking (Chan & Ananthram, 2019; Gal et al., 2020; Nguyen & Crossan, 2022; Pimentel et al., 2023). This underscores the urgent need to explore how virtue ethics, as a philosophical framework, intersects with financial

satisfaction to shape the investment decisions of individual investors, especially in the context of ESG considerations.

The research aims to examine how various ESG factors impact financial satisfaction and influence investment decisions. It will specifically assess the influence of climate risk, human rights, and board independence on financial satisfaction and analyse how financial satisfaction shapes investment decisions. The research will also explore the role of virtue ethics in enhancing the relationship between financial satisfaction and investment decisions. The goal is to provide a comprehensive understanding of how higher ethical standards can amplify the beneficial effects of ESG-aligned investment strategies. By incorporating these dimensions, the research endeavours to thoroughly comprehend the factors influencing investors' behaviour in the context of ESG investing in Malaysia. It aims to reveal the intricate relationship between ethical considerations, financial satisfaction, and investment decisions. This approach not only fills the current gap in research but also adds to the broader discussion on sustainable and ethical investing.

This research aims to enrich stakeholder theory by proposing a nuanced comprehension that investors evaluate ESG performance not only based on financial gains but also through their moral and ethical standards (Hassan et al., 2021; Ashraf et al., 2022; Huang, 2022; Yadav & Jain, 2023). It bridges stakeholders, social responsibility, and agency theories by highlighting how ESG considerations generate value for investors and guide sustainable investment practices (Díez-Spelz & Ramírez-García, 2022; Campiglio et al., 2023; Ahmed & Anifowose, 2024). By examining ESG factors, financial satisfaction, virtue ethics, and their impact on investment decisions, the research offers valuable insights for various stakeholders. It compares value creation through ESG and non-ESG investments, laying the groundwork for informed decisions that fulfil financial goals and align with ethical principles (Harper, 2020). Furthermore, the findings guide corporations and policymakers to integrate ESG practices into their strategies and policies effectively (Saygili et al., 2021; The Star, 2023).

2. Literature Review

The review of existing literature provides an overview of the theoretical and conceptual frameworks relevant to the research, laying the foundation for developing hypotheses. It helps gain insight into the impact of ESG factors on investor behaviour and formulate specific hypotheses to assess important variables.

2.1 Theoretical framework

In ESG investing, stakeholder theory is crucial, guiding investor behaviours by stressing the alignment of stakeholder interests with ethical and sustainable objectives. The theory, foundational in understanding the nexus of relationships between businesses and their varied stakeholders—from shareholders to local communities—emphasises that a firm's sustainability heavily relies on stakeholder support. Effective stakeholder relationship management is posited

to enhance business sustainability, with the theory encompassing economic, social, and moral dimensions that focus on shared value creation, corporate social responsibility, and ethical obligations towards stakeholders, respectively (Freeman, 1984; Freudenreich et al., 2020; Dmytriiev et al., 2021; Bridoux & Stoelhorst, 2022; Waheed & Zhang, 2022).

Recent applications of stakeholder theory in sectors such as microfinancing highlight its relevance in evaluating the interaction between social and financial performance and risk, influencing investment decisions and the perceived impact of CSR initiatives on investor risk and corporate financial outcomes (Jia & Zhang, 2014; Kahupi et al., 2021; Singh, 2023). The integration of stakeholder theory with behavioral finance, socially responsible theory, agency theory, and virtue ethics enriches the understanding of CSR's broader impacts and the role of governance structures like board independence in enhancing stakeholder wealth through credible sustainability reporting (Rouf & Siddique, 2023; Ahmed & Anifowose, 2024).

Behavioural finance's insights into the psychological factors affecting financial decisions, such as cognitive biases and emotional influences, are integrated with stakeholder theory to offer a nuanced view of financial satisfaction in ESG investing. This integration aids in bridging subjective and objective investment success assessments, highlighting the critical role of ethical considerations and stakeholder engagement in shaping investment strategies. The synthesis of these theories provides a comprehensive framework to understand ESG considerations' incorporation into investment decisions, aiming for financial satisfaction and ethical integrity (Kahneman & Tversky, 1979).

2.2 Investment Decisions

Investment decisions are increasingly considered ESG practices. This involves assessing risks and rewards while prioritising ethical sustainability (Rahman & Gan, 2020; Raut, 2020). Companies that overlook ESG considerations face reputational and operational risks, emphasising the importance of adhering to ESG principles to protect investor interests and sustain business operations (Stankevičienė and Čepulytė, 2014; Abdul Manaf et al., 2021; Olofsson et al., 2021). Research indicates the integration of ESG factors into financial decisions, investigating whether ESG stocks offer better returns compared to non-ESG counterparts, influenced by investors' beliefs and behavioural perspectives (Friede, 2019; Bamidele Fakoya & Evonia Malatji, 2020; Pástor et al., 2021; Cho, 2023).

Critical factors such as climate risk, human rights, and board independence significantly impact these decisions, affecting the financial system, investor willingness, and rational decision-making (Bisaro et al., 2021; Chakraborty et al., 2023; Bartels & Schramade, 2024;). This research explores how these factors influence investment decisions, seeking insights beyond conventional scores and ratings.

Furthermore, the research investigates the role of financial satisfaction and virtue ethics in investment effectiveness. Financial satisfaction reflects contentment with economic status, while virtue ethics assesses the capacity for ethical decision-making, framing how these elements guide ESG investment strategies (Klimczak et al., 2022; Kushwaha et al., 2023).

2.3 Hypothesis development

2.3.1 Climate risks and investors' financial satisfaction

Extensive research emphasised the crucial role of climate risk as a significant environmental factor that influences various aspects, particularly economic development (Taylor et al., 2021). Studies indicate that climate risk has a substantial impact on investment decisions, with the alignment of perceived risks and potential benefits enhancing investment outcomes (Sciarelli et al., 2021; Kim & Kim, 2023; Newell et al., 2023; Sood et al., 2023). The availability of climate-related information is vital for reducing disparities between expected and actual investment results, thereby improving investor decision-making processes.

In the context of stakeholder theory, integrating climate risk into corporate management and investment evaluations strengthens company-stakeholder relationships, resulting in competitive advantages and sustainable business practices (Kim & Kim, 2023; Newell et al., 2023). Furthermore, climate disruptions pose significant risks to corporate valuations, adversely affecting businesses and stakeholders (Johnson et al., 2021).

Additionally, the awareness of climate-related risks is increasingly being considered in investment decision-making, potentially enhancing financial stability and returns. This awareness encourages investors to adopt proactive strategies that address environmental concerns, thereby improving financial satisfaction and outcomes (Roncoronia et al., 2021; Wu et al., 2022; Adediran et al., 2023). Aligning investments with environmental values reflects investors' ethics and enhances their financial satisfaction, leading to the hypothesis that integrating climate risk positively affects investment decisions and satisfaction (Dutta et al., 2021; Lantushenko et al., 2022).

H1: There is a positive relationship between climate risk and financial satisfaction among investors.

2.3.2 Human rights and investors' financial satisfaction

Incorporating human rights into socially responsible business practices highlights the importance of upholding and safeguarding stakeholder rights for sustainable organisational growth (Michalos et al., 2011; Novo-Corti et al., 2018). This dedication to ethical business practices is evident in the embrace of the United Nations Guiding Principles by major companies such as

Nestle, H&M, and Unilever, who have integrated human rights into their corporate ethical codes (Wettstein, 2021; Favotto & Kollman, 2022). Studies indicate that human rights considerations significantly impact business operations and stakeholder relationships, directly influencing corporate social responsibility and investment decisions (George, 2021; Saloranta, 2021). Actions like enhancing employee benefits and addressing healthcare issues play a vital role in defining corporate responsibility, as neglecting these areas could expose companies and investors to financial risks (Levashova, 2020; Alexander et al., 2023).

Moreover, transparency in human rights practices builds investor confidence and shapes investment decisions, especially among non-professional investors (Henager et al., 2021; Brink et al., 2022;). The increasing trend towards ethically aligned investments suggests that prioritising human rights mitigates risks and enhances financial performance and investor contentment (Beji et al., 2021; Khan & Liu, 2023). Therefore, companies prioritising robust human rights practices can achieve improved financial returns and meet socially conscious investors' expectations, contributing to psychological and economic well-being (Harymawan et al., 2022; Zafar et al., 2022). Based on this literature review, the research formulated the following hypothesis:

H2: There is a positive relationship between human rights and financial satisfaction among investors.

2.3.3 Board independence and investors' financial satisfaction

Board independence, characterised by most independent directors, is essential for reducing conflicts of interest between management and shareholders and protecting stakeholder interests. This aspect of governance improves the transparency and quality of corporate reporting, decreasing information asymmetry and benefiting stakeholder relationships (Bezemer et al., 2014; Naciti, 2019; Khan et al., 2019; Biswas et al., 2023). Studies show that board independence is crucial for effective corporate governance and well-informed investment decisions, which positively impact firm value and performance (Merendino & Melville, 2019; Moscariello et al., 2019; Erena et al., 2022; Agyei-Mensah, 2023).

An independent board is associated with reliable financial reporting and strategic decision-making, which are essential for guiding investor decisions (Kılıç & Kuzey, 2019; Pham & Nguyen, 2019; Kaawaase et al., 2021; Zaid et al., 2020). Research has indicated that such boards contribute to trustworthy financial information and improved firm performance, thereby enhancing investors' financial satisfaction (Barros et al., 2021; Hsu et al., 2021; Naseem et al., 2023; Kamarudin et al., 2024;). The ethical behaviour promoted by board independence aligns corporate performance with shareholder interests under the moral aspect of stakeholder theory (Chakraborty et al., 2023).

Moreover, board independence significantly influences investors' shareholding intentions by balancing agency costs and benefits, thus promoting financial satisfaction (Akhter & Hoque, 2022). Empirical evidence supports a positive association between board independence and economic outcomes, attributing this to improved governance practices that ensure sustainable success and secure investor returns (Sultana et al., 2017; Zhou et al., 2018; Bunget et al., 2020; Salleh et al., 2020; Adebayo & Esther, 2022; Attia et al., 2022; Dorfleitner et al., 2022; de Langen, 2023). Thus, this research hypothesised that:

H3: Board independence is positively related to investors' financial satisfaction.

2.3.4 Financial satisfaction and ESG-investment decisions

Behavioural finance theory suggests that an individual investor's financial satisfaction is based on their subjective assessment of their investment results and overall contentment with their economic situation, incorporating their perceptions of investment performance, financial well-being, and emotional responses to monetary outcomes. This concept is essential for investors seeking optimal satisfaction through ESG investment strategies (Kahneman & Tversky, 1979; Barberis & Thaler, 2003; Sachdeva & Lehal, 2023).

Financial satisfaction, reflecting an individual's economic well-being, is influenced by financial position, self-efficacy, and risk tolerance factors. These elements are crucial in shaping investment behaviours that align with ESG principles (Tenney & Kalenkoski, 2019; Payne and Asebedo, 2019; Naqvi et al., 2020; Gray et al., 2022). It is also connected to the economic aspect of stakeholder theory, emphasising investments that offer satisfactory returns (Nanda & Banerjee, 2021; Fan & Henager, 2022).

Research indicates that high financial satisfaction motivates investors to participate in ESG investments, driven by economic and ethical considerations. Companies that prioritise ESG practices have been shown to enhance firm value and investor trust, emphasising the significance of ESG factors in investment decision-making and their role in promoting ethical investment behaviours (Haller et al., 2017; Stolowy & Paugam, 2018; Gupta & Garg, 2022; E-Vahdati et al., 2023). Consequently, investors with higher financial satisfaction are more likely to invest in ESG-aligned initiatives, aiming to fulfil both financial expectations and ethical standards (Gray et al., 2022; MacNeil & Esser, 2022; Iazzolino et al., 2023). Thus, this research hypothesised that:

H4: Financial satisfaction, shaped by climate risk, human rights, and board independence, is positively related to investment decisions.

2.3.5 Virtue ethics and investment decisions

Virtue ethics significantly impact ethical decision-making in investments by emphasising the development of moral characteristics such as integrity. This approach enhances stakeholder satisfaction and shapes corporate decisions (Nguyen & Crossan, 2022; Martin, 2022; Zachary et al., 2023). It is central to managing complex dilemmas and ensuring decisions align with ethical standards, particularly relevant in ESG investment contexts (Chan & Ananthram, 2019).

Research indicates that virtue ethics critically affects how investors evaluate and integrate ESG criteria into their decisions, aiming to align investments with their moral values. This alignment ensures compliance with ethical norms, fosters long-term value creation, and boosts financial satisfaction by reflecting personal and societal values (Gal et al., 2020; Martin, 2022; Pimentel et al., 2023).

Additionally, virtue ethics has been shown to mitigate biases and improve judgment accuracy, facilitating more ethical and practical decision-making processes. High adherence to virtue ethics encourages investors to choose options that offer both moral integrity and financial returns, supporting ESG initiatives that benefit broader societal and environmental goals (Cruz et al., 2020; Bruhn & Asher, 2021; Drašček et al., 2021; Klimczak et al., 2022).

Empirical studies also demonstrate that a robust ethical framework enhances the relationship between financial satisfaction and investment choices, with investors experiencing greater satisfaction when their investments have a positive societal impact (Sarbabidya & Trina Saha, 2020; Martini, 2021; Peng & Chen, 2023). This highlights how robust ethical practices influence investment strategies, leading to more socially responsible and financially rewarding outcomes. Based on the literature review, this research hypothesised that:

H5: Virtue ethics are positively related to investment decisions.

H6: A high level of virtue ethics strengthens the positive relationship between financial satisfaction and investment decisions.

2.4 Conceptual framework

Based on the explanation of underpinned theories and variable concepts, the conceptual framework was as follows:

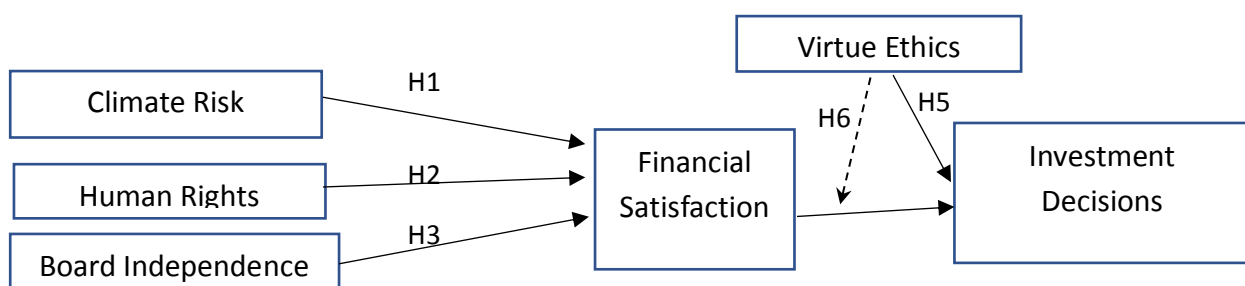


Figure 1. Conceptual framework

3. Methodology

The research employed a survey questionnaire and a conceptual framework to gather responses from selected individuals. Using a deductive approach, the research used a descriptive and quantitative research design to examine the features and influence of climate risk, human rights, and board independence on financial satisfaction, virtue ethics and their impact on investment decisions.

3.1 Data collection and sample

This research employed an online survey to gather insights from individual investors in Malaysia regarding their perspectives on ESG factors when making investment choices. The survey was conducted in Malaysia from March 2024 to April 2024 and was distributed via various social media platforms in a self-administered format to encourage broad participation. The target population consisted of Malaysians knowledgeable about ESG factors and had practical experience in personal investment decisions across various demographics (Bernardo, 2020). As a comprehensive investor database was unavailable, non-probability sampling methods such as purposive and snowball sampling were utilised (Malhotra, 2019). These methods allowed for selecting individuals who met specific criteria related to the research and expanded participant recruitment through social media referrals, thereby enhancing the sample's diversity and representativeness (Sibona et al., 2020; Leighton et al., 2021). To improve the survey's content, feedback from two academics and one industry expert was sought to validate the survey content, resulting in improvements to the questionnaire design for improved clarity and comprehensiveness (Nuryadi et al., 2022; Zuraidah et al., 2023). A pilot test involving 30 participants was conducted to ensure the survey's functionality (Whitehead et al., 2016). A sample size of at least 77 was determined using G*Power analysis for a medium effect size, 0.05 significance level, and 0.8 power level, ensuring reliable findings, and contributing to the understanding of ESG's impact on investment decisions made by Malaysian investors (Shi et al., 2023). While 131 individuals participated in the online survey, only 108 met the eligibility criteria, resulting in a response rate of 82.4%.

3.2 The measures

The measurement scales used in the research have been previously validated in the literature. An extensive literature survey provided valuable insights about the previously validated scales, which were then slightly modified to measure underlying constructs. The climate risks consist of four items drawn from Sultana et al. (2017), Hu et al. (2022), and Rooh et al. (2023). The human rights measure with four items was taken from Michalos et al. (2011) and Sultana et al. (2017). Similarly, board independence with four items was adopted from Khan et al. (2019) and Tumwebaze et al. (2021). The financial satisfaction measure with five items was borrowed from Owusu (2023). Meanwhile, the virtue ethics measure with six items was adapted from ElGammal et al. (2018). Finally, the measure of investment decisions with five items was drawn

from Rahman and Gan (2020). All variables were measured using a seven-point Likert scale ranging from "Strongly Disagree" (1) to "Strongly Agree" (7).

4.0 Analysis and Results

4.1 Demographic profile of respondents

In **Table 1**, demographic information for 105 respondents is displayed. The data shows that most (47.6%) of respondents have less than two years of investing experience, while only a tiny portion (8.6%) have been investing for over ten years. Regarding gender distribution, males comprise 59% of respondents, while females comprise 41%. Most respondents are under 35 years of age (59%), with a smaller percentage between the ages of 35 and 45 (32.4%), and a minimal percentage aged between 45 and 55 (6.7%). The most common occupation among respondents is employment, with 71.4% employed, while students account for 16.2%. A significant majority (72.4%) of respondents have a business education background, while 27.6% have a non-business background.

Table 1: Demographic profile of the respondents

| Information | Frequency | Percentage (<i>n</i> = 105) |
|-------------------------------|-----------|---------------------------------|
| <i>Investment experiences</i> | | |
| Below two years | 50 | 47.6 |
| 2-5 years | 26 | 24.8 |
| 6-10 years | 20 | 19.0 |
| More than ten years | 9 | 8.6 |
| <i>Gender</i> | | |
| Male | 62 | 59.0 |
| Female | 43 | 41.0 |
| <i>Age</i> | | |
| Below 35 years old | 62 | 59.0 |
| 35-45 years old | 34 | 32.4 |
| 45-55 years old | 7 | 6.7 |
| <i>Occupation</i> | | |
| Student | 17 | 16.2 |
| Employed | 75 | 71.4 |
| Self-employed | 6 | 5.7 |
| Unemployed | 7 | 6.7 |
| <i>Education Background</i> | | |
| Business | 76 | 72.4 |
| Non-business | 29 | 27.6 |

4.2 Measurement model

This research used partial least squares (PLS) modelling with the Smart PLS 4 version (Ringle et al., 2022) as the statistical tool to evaluate the measurement and structural model. This approach is suitable for survey research, which often has a non-normal distribution (Chin et al., 2003) and does not depend on the normality assumption.

The collected data were processed and cleaned using the Statistical Package for the Social Sciences (SPSS) Version 27.0. This research focused on critical statistical measures essential for ensuring data quality, including (i) missing data, (ii) suspicious response patterns such as straight-lining answers, inconsistent responses, and zig-zag patterns, (iii) outliers, and (iv) data distribution, whether normal or non-normal, following the guidelines of Hair, Hult, Ringle, and Sarstedt (2022).

After the initial scrutiny, no missing values were found due to the mandatory nature of the online survey questions and sections. This research analysed the standard deviation of each respondent's answers to identify suspicious responses and excluded three respondents for straight lining, leaving 105 valid samples for further analysis. To identify multivariate outliers, this research used Mahalanobis distances (D^2) and probability (p) values, with a critical chi-square value (χ^2) set at 16.266 for 3 degrees of freedom, indicating outliers at $p \leq 0.001$ (Ma et al., 2022; Sajjad et al., 2023). All D^2 values fell below the critical threshold, and all p -values exceeded 0.001, confirming the absence of significant multivariate outliers among the 105 responses considered for final data analysis. This research also used the WebPower online calculator to compute Mardia's multivariate skewness and kurtosis, revealing non-normal distributions with skewness at 12.760 and kurtosis at 65.811, beyond the accepted normality thresholds of three for multivariate skewness and twenty for multivariate kurtosis (Kline, 2016; Lim & Qi, 2023). Despite these deviations, the dataset was deemed suitable for hypothesis testing using PLS-SEM, a robust method for handling non-normal data (Hair, Hult et al., 2017; Devisakti et al., 2024).

This research followed the recommendations of Anderson and Gerbing (1988) in testing the model using a two-step approach. Initially, this research evaluated the measurement model to ensure the validity and reliability of the instruments used, following the guidelines of Ramayah et al. (2018) and Hair et al. (2022). Subsequently, this research conducted the structural model to test the developed hypothesis.

Convergent validity refers to the degree to which specific measures align with the concepts they are intended to measure. This research examined the loadings, average variance extracted (AVE), and composite reliability (CR) for the measurement model. The loading values should be ≥ 0.5 , the AVE should be ≥ 0.5 , and the CR should be ≥ 0.7 . As indicated in **Table 3**, the AVE results are all above 0.5, and the CRs are all above 0.7 (Hair et al., 2022), suggesting that the scales possess strong reliability and convergent validity.

Table 3: Measurement reliability test

| Variable | Items | Loadings | AVE | CR |
|------------------------|-------|----------|-------|-------|
| Climate risks | CK1 | 0.860 | 0.782 | 0.935 |
| | CK2 | 0.906 | | |
| | CK3 | 0.879 | | |
| | CK4 | 0.891 | | |
| Human rights | HR1 | 0.847 | 0.764 | 0.928 |
| | HR2 | 0.861 | | |
| | HR3 | 0.895 | | |
| | HR4 | 0.892 | | |
| Board independence | BI1 | 0.879 | 0.718 | 0.910 |
| | BI2 | 0.931 | | |
| | BI3 | 0.769 | | |
| | BI4 | 0.802 | | |
| Financial satisfaction | FS1 | 0.854 | 0.706 | 0.923 |
| | FS2 | 0.862 | | |
| | FS3 | 0.856 | | |
| | FS4 | 0.873 | | |
| | FS5 | 0.752 | | |
| Virtue Ethics | VE1 | 0.855 | 0.732 | 0.942 |
| | VE2 | 0.855 | | |
| | VE3 | 0.876 | | |
| | VE4 | 0.858 | | |
| | VE5 | 0.849 | | |
| | VE6 | 0.839 | | |
| Investment decisions | ID1 | 0.846 | 0.723 | 0.929 |
| | ID2 | 0.888 | | |
| | ID3 | 0.898 | | |
| | ID4 | 0.822 | | |
| | ID5 | 0.792 | | |

In the second step, this research evaluated the discriminant validity using the HTMT criterion recommended by Henseler et al. (2015) and updated by Franke and Sarstedt (2019). According to this criterion, the HTMT values should be ≤ 0.85 for a stricter assessment and ≤ 0.90 for a

more lenient assessment. Reviewing **Table 4**, this research observed that all HTMT values were below the more stringent criterion of ≤ 0.85 . As a result, this research can infer that the participants recognised the distinctiveness of the five constructs. These validity assessments have confirmed the validity and reliability of the measurement items.

Table 4: Discriminant validity (HTMT ratio)

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|-------|-------|-------|-------|-------|-------|---|
| 1. Board Independence | | | | | | | |
| 2. Climate Risk | 0.750 | | | | | | |
| 3. ESG-Investment Decisions | 0.763 | 0.507 | | | | | |
| 4. Financial Satisfaction | 0.747 | 0.707 | 0.735 | | | | |
| 5. Human Rights | 0.715 | 0.702 | 0.719 | 0.682 | | | |
| 6. Virtue Ethics | 0.685 | 0.481 | 0.834 | 0.652 | 0.716 | | |
| 7.Virtue Ethics x Financial Satisfaction | 0.409 | 0.397 | 0.510 | 0.428 | 0.528 | 0.635 | |

4.3 Common method variance

In this research, common method variance (CMV) was possible because the independent and dependent variables were collected simultaneously from the same respondents. (Richardson, Simmering, & Sturman, 2009). As the data was collected from a single source, this research first tested for Common Method Bias by following the suggestions of Kock and Lynn (2012) and Kock (2015) using full collinearity testing. This research regressed all the variables against a common variable and found a VIF of less than 3.3, indicating that single-source bias is not a severe issue with our data, as shown in Table 2.

Table 2: Full Collinearity Testing

| Variable | BI | CK | FS | HR | VE | ID |
|----------|-------|-------|-------|-------|-------|-------|
| VIF | 2.864 | 2.387 | 2.561 | 2.552 | 2.816 | 3.257 |

Note: BI = Board Independence, CK = Climate risks, FS= Financial satisfaction, HR = Human Rights, VE= Virtue Ethics, ID = Investment Decisions

Furthermore, this research followed Podsakoff, Podsakoff, Williams, Huang, and Yang's (2024) recommendation to control the CMV and used a single common-method-factor approach. This research created a method factor using the PLS marker variable approach (Rönkkö & Ylitalo, 2011). To create the method factor, this research first selected three items collected in the same survey but not included in the model being tested. These items were: (1) "Once I've come to a conclusion, I'm not likely to change my mind," (2) "I don't change my mind easily," and (3) "My views are very consistent over time (Oreg, 2003)." This research used these items as marker indicators. Secondly, we created a method factor using the marker indicators as an exogenous variable, predicting each model's endogenous construct. Finally, this research compared the method factor model with the baseline model and found that the significant paths in the baseline

model remained important in the method factor model. Therefore, this research can conclude that the data had no CMV problem.

4.4 Structural model

As Hair et al. (2022) and Cain et al. (2017) suggested, this research assessed the multivariate skewness and kurtosis. The results showed that the data this research collected was not multivariate normal, Mardia's multivariate skewness ($\beta = 12.760$, $p < 0.01$) and Mardia's multivariate kurtosis ($\beta = 65.811$, $p < 0.01$), thus following the suggestions of Becker et al. (2023), this research reported the path coefficients, the standard errors, t-values and p-values for the structural model using a 10,000-sample re-sample bootstrapping procedure (Ramayah et al. 2018). Also, based on the criticism of Hahn and Ang (2017), p-values are not a good criterion for testing a hypothesis's significance and suggested using a combination of criteria such as p-values, confidence intervals and effect sizes. Table 5 summarises the requirements this research used to test the hypotheses developed.

This research tested the effect of the four predictors on Financial satisfaction; the R^2 was 0.537 ($Q^2 \text{ predict} = 0.507$), which shows that all three predictors explained 53.7% of the variance in Financial Satisfaction. Climate risks ($\beta = 0.246$, $p < 0.05$), Human rights ($\beta = 0.236$, $p < 0.05$), and Board Independence ($\beta = 0.360$, $p < 0.05$) were all positively related to Financial Satisfaction. Thus, H1, H2 and H3 were supported. Next, this research tested the effect of Financial Satisfaction and Virtue ethics on Investment decisions, with an R^2 of 0.648 ($Q^2 \text{ predict} = 0.619$), indicating that Financial Satisfaction and Virtue Ethics explain 64.8% of the variance in Investment decisions, which supports H4 and H5.

Effect size (f^2) and predictive power ($Q^2 \text{ predict}$) are critical metrics that provide insights into the robustness and predictive accuracy of structural equation models. The effect size (f^2) measures the impact of exogenous latent variables on endogenous latent variables. It quantifies the strength of each causal relationship within the structural model. Cohen (1988) classifies effect size thresholds as small ($f^2 = 0.02$), medium ($f^2 = 0.15$), and large ($f^2 = 0.35$). Most direct effects were observed to have f^2 falling within the range of small to large. In Table 5, the coefficients of all direct paths were all significant ($p < .05$), with a large effect size for $VE \rightarrow ID$ ($f^2 = 0.444$), a medium effect size for $FS \rightarrow ID$ ($f^2 = 0.189$), and a small effect size for the remaining direct effects ($0.063 < f^2 < 0.132$). Thus, all hypotheses related to the direct effects of our proposed H1, H2, H3, H4, and H5 have been supported, but the moderation effect, H6, was not supported.

Table 5: Hypothesis testing direct effects

| Hypothesis | Relations hip | Std Bet a | Std Err or | t- val ues | p- value s | BC I LL | BCI UL | f^2 | Decisio n | VIF |
|------------|---------------------|-----------|------------|------------|------------|---------|--------|-------|-----------|-------|
| H1 | CR \rightarrow FS | 0.2 | 0.12 | 1.92 | 0.027 | 0.0 | 0.43 | 0.06 | Support | 2.104 |

| Hypothesis | Relationship | Std Beta | Std Error | t-values | p-values | BCI LL | BCI UL | f ² | Decision | VIF |
|------------|--------------|----------|-----------|----------|----------|--------|--------|----------------|---------------|-------|
| H2 | HR → FS | 0.246 | 0.138 | 1.809 | 0.035 | 0.011 | 0.444 | 0.063 | Supported | 1.964 |
| H3 | BI → FS | 0.360 | 0.145 | 2.483 | 0.007 | 0.070 | 0.580 | 0.132 | Supported | 2.190 |
| H4 | FS → ID | 0.322 | 0.093 | 3.442 | p<.001 | 0.069 | 0.477 | 0.189 | Supported | 1.597 |
| H5 | VE → ID | 0.569 | 0.090 | 6.329 | p<.001 | 0.080 | 0.704 | 0.444 | Supported | 2.131 |
| H6 | VE x FS → ID | -0.005 | 0.041 | 0.129 | 0.449 | -0.000 | 0.055 | 0.000 | Not supported | .609 |

Note:

This research use a 95% confidence interval with a bootstrapping of 10,000.

BI = Board Independence, CK = Climate risks, FS= Financial satisfaction, HR = Human Rights, VE= Virtue Ethics, ID = Investment Decisions

In addition, this research evaluated the effectiveness of structural models using Q2 predict and the root mean square error (RMSE) obtained through the PLS prediction process. (Shmueli, Ray, Velasquez Estrada, & Chatla, 2016; Shmueli et al., 2019). It is recommended to report Q2 predict to ensure that a PLS-SEM structural model has established predictive power (Hair et al., 2022). The Q2 predict refers to the model's ability to forecast endogenous constructs based on observed data accurately. A high Q2 predict value (greater than 0) indicates the model has significant predictive relevance, confirming its ability to accurately predict the data points it is designed to estimate. In this case, the Q2 predict for all indicators of Investment Decisions was more significant than zero (ranging from 0.336 to 0.569), as shown in Table 7. Therefore, the structural model demonstrates sufficient out-of-sample predictive power Furthermore, Shmueli et al. (2019) introduced PLS predict, a holdout sample-based procedure that produces case-level predictions for an item or construct using the PLS-Predict with a 5-fold procedure to assess predictive relevance. According to Shmueli et al. (2019), if all the item differences (PLS-LM) are lower, it indicates strong predictive power; if they are all higher, predictive relevance is not confirmed; if the majority is lower, there is moderate predictive power; and if the minority is lower, there is low predictive power. Based on Table 7, all the errors of the PLS model were lower than the LM model, concluding that our model has strong predictive power.

Table 7: PLS-Predict

| Item | PLS | LM | PLS-LM | Q ² _predict |
|------|-------|-------|--------|-------------------------|
| | RMSE | RMSE | | |
| ID1 | 0.855 | 0.958 | -0.103 | 0.497 |
| ID2 | 0.880 | 0.960 | -0.080 | 0.435 |

| | | | | |
|-----|-------|-------|--------|-------|
| ID3 | 0.826 | 0.875 | -0.049 | 0.569 |
| ID4 | 0.980 | 1.036 | -0.056 | 0.336 |
| ID5 | 1.084 | 1.296 | -0.212 | 0.370 |

Note*: RMSE= Root mean squared error, PLS=PLS-SEM model and LM=Linear model

5. Discussion

This research explores the relationships between climate risk, human rights, board independence, and virtue ethics with financial satisfaction, aiming to elucidate their influence on ESG investment decisions.

The first hypothesis (H1) proposed a positive association between financial satisfaction and climate risk, supported by a path coefficient of $\beta=0.246$ and significant t and p-values ($t=1.928$, $p=0.027$). This indicates that being more aware of climate risks can improve financial satisfaction by reducing investment risks and increasing returns, consistent with the research of Chen et al. (2022) and Guo & Zhou (2021). Despite conflicting findings from D'Amato et al. (2021) and Feng et al. (2022), this research aligns with the idea that awareness of climate risks can lead to better financial outcomes and be in line with investor values (Alamad, 2023; Dar et al., 2023).

The second hypothesis (H2) investigates the connection between human rights and financial satisfaction, demonstrating a positive relationship with a $\beta=0.236$ and significant statistics ($t=1.809$, $p=0.035$). While previous studies suggested potential negative associations due to lower returns on such investments (Deva, 2022), current results indicate that focusing on human rights can provide financial benefits without reputational risks, thereby increasing financial satisfaction (Enete & Sturr, 2023; Levashova, 2020).

Hypothesis three (H3) argues that board independence has a positive impact on financial satisfaction, backed by a strong path coefficient ($\beta=0.360$) and significant results ($t=2.483$, $p<0.05$). This suggests that more independent directors can safeguard stakeholder interests and improve company performance, enhancing financial satisfaction (Adebayo & Esther, 2022; Dorfleitner et al., 2022).

The fourth point of discussion (H4) connects financial satisfaction with ESG investment decisions, indicating a substantial positive influence ($\beta=0.322$, $t=3.442$, $p<0.05$). Financial satisfaction, influenced by the abovementioned factors, promotes more sustainable investment choices, reflecting higher returns and lower risks than conventional investments (Mavlutova et al., 2021; Mukhtar et al., 2023).

The final hypotheses (H5 and H6) examine whether virtue ethics strengthens the relationship between financial satisfaction and ESG investment decisions. While H5 reveals a strong positive correlation ($\beta=0.569$, $t=6.329$, $p<0.05$), H6 does not detect significant moderation effects, indicating that virtue ethics predominantly impact decisions through ethical considerations rather than altering the financial satisfaction-ESG investment relationship (Nguyen & Crossan, 2022). The research showed that virtue ethics did not significantly influence the connection between financial satisfaction and ESG investment decisions. This could be because virtue ethics focuses on moral character rather than immediate financial outcomes. Virtue ethics affects investment decisions indirectly by shaping long-term ethical values and behaviours. The impact of virtue ethics might be overshadowed by factors such as market conditions, personal financial goals, and risk assessments. Measuring the ethical implications and determining its influence across different cultural or economic contexts may also be challenging. These findings suggest that while virtue ethics is vital in shaping ethical perspectives, its direct influence on moderating the impact of financial satisfaction on investment decisions may not be easily observed through traditional financial analysis methods (Nguyen & Crossan, 2022; Rodgers et al., 2023).

6. Conclusion

The research significantly improves the theoretical and practical comprehension of ESG factors in the context of Malaysian investment. Theoretically, it adds to stakeholder theory by including ESG considerations—such as climate risk, human rights, and board independence—as crucial elements influencing investor behaviour and financial outcomes. Connecting these ESG factors with financial satisfaction, the research extends stakeholder theory and behavioral finance, offering a detailed perspective on how ethical and governance considerations impact investment decisions beyond just financial returns. Incorporating virtue ethics further enhances the theoretical landscape, suggesting that moral considerations can shape investment preferences. However, they do not directly moderate the relationship between financial satisfaction and investment decisions.

Practically, the results offer actionable insights for investors, corporations, and policymakers, highlighting the importance of being mindful of ESG factors to enhance financial satisfaction and promote ethical investment practices. Especially for policymakers, the research emphasises the necessity of increased awareness and integration of ESG principles into national regulatory frameworks to support Malaysia's transition towards sustainable practices. This synthesis connects theoretical frameworks with practical implications, providing a comprehensive understanding of the role of ESG factors in shaping investment landscapes, thereby guiding future academic inquiry and practical application in sustainable investing.

However, the research's cross-sectional design limits its ability to capture the evolving dynamics of ESG factors, indicating that future research should use a longitudinal approach to assess these influences over time. Additionally, further exploration into the multi-dimensional nature of virtue ethics could provide deeper insights into its potential moderating effects on financial satisfaction

and investment decisions. Future methodologies should also include model validation techniques such as cross-validation and bootstrapping to avoid overfitting and ensure robustness.

In advancing ESG investing, future research may concentrate on three key factors that could significantly enhance comprehension and practical insights into investor behaviour and decision-making processes. Stakeholder engagement is critical in evaluating how companies effectively involve stakeholders in decision-making, particularly concerning ESG initiatives. This factor can shed light on the impact of such engagement on investor trust and satisfaction, revealing how involvement might influence investment decisions. Second, it is essential to analyse market volatility to understand how economic fluctuations affect the stability and appeal of ESG investments. Understanding the performance of ESG-focused portfolios during different market conditions can assist investors and managers in making more well-informed choices. Lastly, the impact of regulatory changes on ESG investments is crucial. With global ESG regulations becoming more stringent, examining how these adjustments affect investor behaviour and corporate strategies will reveal the challenges and opportunities arising from the changing regulatory landscape. These three factors provide a comprehensive framework for delving deeper into ESG investing dynamics and improving theoretical and practical outcomes in this increasingly important area

6.0 References

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THE IMPACT OF DIGITAL LITERACY AND FINANCIAL LITERACY ON HOUSEHOLD FINANCIAL BEHAVIOR A CHINA STUDY

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ABSTRACT

This study investigates how digital literacy and financial literacy influence the financial behavior in China. In the digital world, where technology is increasingly subverting traditional financial services, digital finance knowledge has become increasingly important, and digital finance and scenario applications are deeply integrated into economic life. This study starts from the micro perspective of household digital financial behavior and quantitatively surveys over 600 households in China. It analyzes the relationship between digital financial literacy and financial behavior through structural equation modeling. It explores establishing a theoretical framework for digital financial literacy to help financial institutions provide high-quality supply and risk decision-making for financial consumers and investors. Through data analysis, this study identifies the positive impact of digital literacy and financial literacy on household financial behavior. In addition, this study also identified the moderating effects of risk attitudes in this process, to help financial education and regulatory agencies propose more targeted measures to improve the digital financial literacy of Chinese residents and optimize their financial behavior. A profound understanding of the impact of digital financial literacy on the financial behavior of Chinese households can promote financial stability, resilience, and inclusion in a rapidly changing economic landscape.

Keywords: Digital Literacy, Financial Literacy, Household Financial Behavior, Risk Attitude, Structural Equation Modeling.

INTRODUCTION

The financial behavior of individual households plays an increasingly important role in the development and stability of global financial markets. In developed countries such as the United States and countries in Europe, personal financial services have a long history, and comprehensive literacy programs related to managing household finances have been implemented, including topics such as budgeting, saving, investing, and retirement planning. These programs have promoted asset growth and the expansion of retail financial services in developed countries.

However, in China, the personal financial market started relatively late compared with developed countries. As Chinese household incomes rise, demand for diversified investments and wealth management has increased rapidly. Based on the China Household Financial Survey (2022), the mean financial asset per household in China was CNY 63 800 (USD 9100) in 2011. After ten years, this figure tripled, reaching CNY 195 000 (USD 27 900). While deposits and cash still constitute the largest percentage of financial assets, both the average value and proportion of high-risk assets have risen, coinciding with persistently low interest rates over the long term. Unfortunately, the financial behavior and outcomes of many household investors have been suboptimal. Surveys show that around 80% of individual stock investors in China have suffered severe losses (Deng et al. 2020). The enormous difference between the median and the average values of financial assets in China implies an extreme inequality in household wealth. CHFS (2022) shows that the median household in the wealthiest 10% has CNY 3.373 million in assets (USD 509 000), roughly 482 times more than the median household in the poorest 10%. The problem with asset inequality is that it exacerbates the disparity between the affluent and the impoverished.

Digital financial literacy has become increasingly important in recent years as people's financial activities become more reliant on technology. With the rise of new technologies such as digital banking, mobile payments, and cryptocurrencies, online financial transactions occur more frequently than ever. As one of the fastest developing countries in the digital economy, China's financial development is more closely integrated with the progress of digital technology. According to public information from the Central Bank of China (2021), five Chinese enterprises number among the top 20 global payment platform companies. Driven by large technology companies, China's mobile payment system has developed rapidly, with a current penetration rate of 86%. Emerging technologies such as artificial intelligence, big data, cloud computing, distributed accounting, and e-commerce are gradually becoming deeply integrated with financial business, accelerating financial innovation and generating new formats such as mobile payments, online credit, and investment consulting. As a result, individuals must develop the necessary knowledge and skills to manage their money effectively in digital spaces.

In addition, the progress of financial technology has significantly affected the traditional financial industry. The off-counter business of banks continues to rise, and the number of physical financial institutions continues to decrease. According to data from the China Banking Association (2021), the number of off-counter transactions by banking and financial institutions

reached 370.922 billion in 2021, a year-on-year increase of 14.59%, and the industry's average electronic channel diversion rate was 90.88%.

Given that personal financial activities have become increasingly integrated with Internet technology worldwide, digital literacy and financial literacy jointly affect household financial behavior. Although most current research still focuses on how financial literacy affects financial behavior, the rapid development of the digital economy means that research should consider how to combine digital literacy with financial literacy.

Furthermore, investor risk attitude is an important psychological factor affecting rational investment behavior. However, the specific moderating relationship of risk attitude remains unclear in research on household financial behavior. Many developed countries require financial clients to undergo regular risk profiling to ensure their financial behavior matches their risk preferences. Although Chinese financial agencies have risk assessment policies, financial institutions often overlook customer risk attitudes due to their incentives to increase sales, leaving only superficial risk checks (Guo, 2022). The regulatory role of risk attitude is not strongly defined or emphasized for consumers in China. Market inattention to risk attitude may reduce its impact on rational investor behavior compared with countries with more stringent risk practices.

Given the suboptimal financial behaviors of Chinese households in areas such as investment, consumption, and credit, China Household Financial Survey (2022) suggests that these issues may stem from low levels of digital literacy and financial literacy among Chinese residents, risk attitude may moderate this effect. Therefore, this study primarily aims to investigate the impact of digital literacy and financial literacy on household financial behavior, and to examine the moderating effect of risk attitudes.

The global economy is shifting towards digital, which is speeding up the move to digital finance. This research builds an accurate framework for digital financial literacy, to explore the impact of digital financial literacy on household financial behavior. From a practical perspective, this study will provide effective suggestions for improving household financial behavior and promoting the sustainable development of digital finance. From a theoretical perspective, this study will contribute to a new theoretical framework for digital financial literacy.

METHODS

This study adopts a quantitative research design. With digital literacy and financial literacy as dependent variables and household financial behavior as independent variables, structured data, statistical analysis, and numerical results of quantitative research are essential to verify hypotheses and establish objective conclusions. This study benefits from quantitative research. It explores variable correlations to understand how digital literacy and financial literacy affect household financial behavior.

The population for this study is the households aged between 18 and 70 years living in Zhejiang. According to the statistics of the China Bureau of Statistics(2022), the population size of 18-70 years adults in Zhjiang Province is estimated to be approximately 43 million.

The primary research samples were collected from Zhejiang Province in China for this study. Zhejiang Province is one of China's most economically developed provinces, especially in the digital economy. In addition, Zhejiang is also a demonstration zone for common prosperity in China and has been committed to bridging the digital divide. So, research on the Zhejiang region can play a role in promoting and demonstrating in China. To determining Sample Size for this study, this study referred to the minimum requirement table for statistical samples proposed by Krejcie and Morgan (1970), which displays the total population based on this study. The minimum sample size should be 384. And for questionnaire data, using SEM to analyze the relationship between latent variables, the sample size suggested to be more than 10 times the number of questions (Kock & Hadaya, 2016). The study consists of 55 questions related to the dependent variable (DV), independent variable (IV), and moderating variable (MV), with a target sample size of 600. Given an anticipated loss during data cleaning, the desired number of questionnaire to be collected is around 650. Therefore, to achieve research objectives, a sample of 650 participants will be selected from the population using a combination of probability and non-probability sampling techniques.

In this study, the technique involves selecting participants who meet specific criteria relevant to the research questions.

With the assistance of the partnered financial institutions, the sample will be selected based on the following criteria: Age between 18 and 70 years, residing in the chosen city or region, regular users or potential users of digital financial services such as online banking, mobile payments, or digital wallets. To select the sample, the researchers will first obtain a list of potential participants from various sources, such as social media and email lists. The researchers will then screen the potential participants to ensure that they meet the inclusion criteria.

The sample size of 650 participants was determined using a sample size calculator with a 95% confidence level and a margin of error of 5%. This sample size is considered adequate for the study, providing sufficient statistical power to test the research hypotheses.

The data for this project were analyzed using Structural Equation Modeling (SEM) with Amos, a powerful statistical tool specifically designed for SEM. SEM is well-suited for examining subtle interactions between numerous factors, as required in our study. It allows for the assessment of both direct and indirect effects of various variables, making it an ideal choice for analyzing complex interactions. By employing SEM, this study can simultaneously evaluate the intricate relationships among digital literacy, financial literacy, household financial behavior, and their various dimensions within Chinese households. And before analyzing the results, this study conducted reliability and validity analysis on each variable in the questionnaire to ensure the

reliability of the research results. Additionally, this study examined the moderating role of risk attitudes on these relationships.

HYPOTHESIS DEVELOPMENT

The research on the impact of digital literacy on household financial behavior revolves around the ability of financial residents to use internet technology for payment, financial management, credit, investment, and other financial behaviors. Li (2020) believes that digital literacy will promote household consumption behavior among residents, while Prete (2022) believes that residents' digital literacy will determine online payment and consumption levels. Wang (2022) believes that the quality and literacy of Chinese residents will affect the participation of middle-aged and older adults in the financial market. In order to clarify the internal relationship between digital literacy and householders' financial behavior, this study constructed the first hypotheses in this research question.

H1: Digital literacy has a significant and positive impact on household financial behavior

The impact of financial literacy on family financial behavior revolves around whether residents have sufficient financial knowledge and skills to make more rational family financial decisions. Gan et al. (2016) focused on the impact of financial literacy on household allocation behavior. Zeng Chu et al. (2016) believe financial literacy can diversify residents' investment portfolios. Wei et al. (2021) pointed out that financial literacy can affect households' financial needs. Li et al. (2022) found that when farmers have high financial or intelligent literacy, the development of inclusive digital finance substantially impacts market participation and financial asset allocation behavior. In order to clarify the internal relationship between digital literacy and householders' financial behavior, this study constructed the second research hypotheses for this research question.

H2: Financial literacy has a significant and positive impact on household financial behavior

Adequate digital and financial literacy provide conditions for rational financial management behavior, but risk attitudes may have a moderating effect. Ramandhanty (2021) believes residents' risk attitudes determine a household's savings level. Tamara (2022) proposed that residents' psychological factors influence family financial decisions, and risk tolerance is an essential factor. In this study, it is necessary to confirm the moderating effect of risk attitudes and provide better financial service recommendations for residents.

H3-1: Risk attitude has a positive moderating effect on the impact of digital literacy on household financial behavior

H3-2: Risk attitude has a positive moderating effect on the impact of financial literacy on household financial behavior

Based on the above discussion, the research framework for the model is presented in Figure 1.

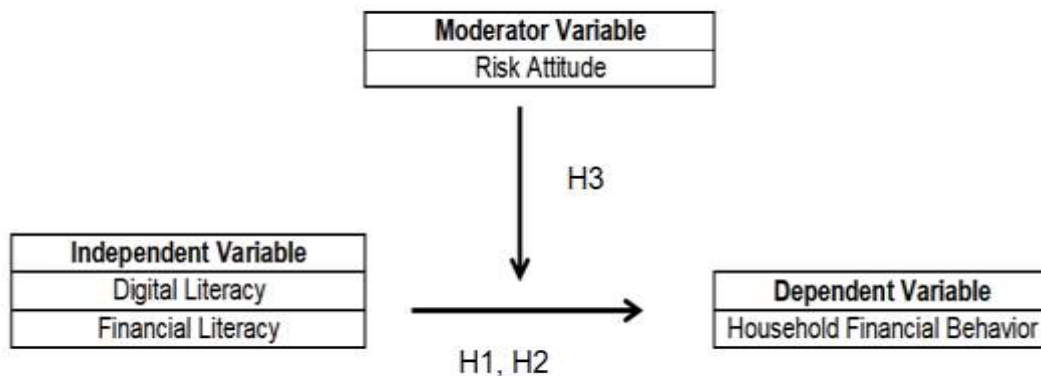


Figure 1. Research Framework

DATA ANALYSIS

The survey was done using a combination of online random distribution and purposive selection methods to acquire data for research purposes. Following the completion of the investigation, a grand total of 650 sample data points were obtained for subsequent processing and analysis. Since the platform only allows data to be uploaded once all questions have been answered, the sample data is full and does not contain any missing numbers. Following that, this study processed the unsuitable sample data to remove any inappropriate sample data, ensuring that the sample data utilized for empirical analysis possessed a high level of integrity.

Firstly, the survey consists of 32 test questions, making the question format reasonable. Typically, it takes approximately 5 minutes to complete. Based on the pilot study, it was determined that the quality of questionnaire completion is subpar when respondents take less than 200 seconds to respond. The sample exhibiting a notably reduced response time is probably a questionnaire voluntarily completed by consumers. Consequently, after considering the time it took to complete the questionnaire, certain sample data with notably shorter reaction times (less than 200 seconds) were initially filtered, resulting in the identification and removal of a total of 25 responses with shorter response times that were deemed incorrect. Additionally, to enhance

the reliability of the questionnaires, 12 sample data points with identical indicator responses (all of which corresponded to answers 3, 4, or 5) were manually identified and excluded from the remaining 625 surveys. After the sample data was cleaned, a total of 613 valid data samples were acquired for empirical analysis from 650 responses. The questionnaire's sample recovery efficiency was 94.3%.

The respondents' profile in this study consisted of demographic information acquired during the survey. The results for each item in the respondents' profile category are presented in Table 4-1. There is a large age range among the participants. A sizeable proportion is found in the under 18(5.9%), 19-24(17.8%), 25-34 (35.7%), 35-44 (22.7%) and over 45(17.9%) age groups, indicating a large presence of people in their 20s and 30s. Individuals 45 and over make up 17.9% of the sample, therefore there is also representation among older age groups.

The "Gender" part of this study consisted of female respondents, accounting for 36.2 percent of the study sample, and male respondents, accounting for 63.8 percent. The inclusion of potential gender-based disparities in financial decision-making gives a well-rounded perspective on investing behavior. The participants have a variety of educational backgrounds. With 15.2% having a master's degree or above and 45.5% having a bachelor's, 15.2% having a college degree, and 9.8% of the sample had a high school diploma or its equivalent.

This study respondents' data for "Income level" statistics reads as follow: under 5000 N=94(15.3%),5000-10000 N=130 (21.2%),10000-20000 N=201(32.8%)20000-50000 N=120(19.6%) above 50000 N=68(11.1%). Finally, for the occupation of the respondents, the statistics reads as follow: Functionary N=152 (24.8%) Enterprise employees N=315(51.4%) student N=66(10.8%) Freelancer=49 (8%) other=31(5.1%)

Overall, 613 respondents showed characteristics of youthfulness and high education, with the majority of employees from mid to high income enterprises. This is consistent with the characteristics of the released "National Financial Literacy White Paper (2022-2023)", indicating that the sample data in this survey is representative. The demographic information description analysis shown in the Table 1 below.

Table 1 Demographic Information Description Analysis

| | Category | N | % |
|--------|----------|-----|------|
| Gender | Male | 391 | 63.8 |

| | | | |
|-----------------------------|---------------------------------------|-----|------|
| | Female | 222 | 36.2 |
| Educational Background | High school diploma or its equivalent | 60 | 9.8 |
| | College degree | 181 | 29.5 |
| | Bachelor | 279 | 45.5 |
| | Master's degree or above | 93 | 15.2 |
| Age | Under 18 | 36 | 5.9 |
| | 19-24 | 109 | 17.8 |
| | 25-34 | 219 | 35.7 |
| | 35-44 | 139 | 22.7 |
| | Above 45 | 110 | 17.9 |
| | | | |
| Income level (per month) | Under 5000yuan | 94 | 15.3 |
| | 5001-10000yuan | 130 | 21.2 |
| | 10000-20000yuan | 201 | 32.8 |
| | 20000-50000yuan | 120 | 19.6 |
| | Above 50000yuan | 68 | 11.1 |
| | | | |
| Occupation | Functionary | 152 | 24.8 |
| | Enterprise employees | 315 | 51.4 |
| | Students | 66 | 10.8 |
| | Freelancer | 49 | 8 |
| | Others | 31 | 5.1 |
| | | | |

RESULT AND DISCUSSION

Measurement Model

In order to ensure the reliability and validity of the measurement model, this study conducted a reliability and validity test before model testing. Table 2 provides the main data on the reliability and validity of the constructs of the research variables, among which Cronbach's alpha values are all greater than 0.8, which means that the consistency of the test results is good. To assess the appropriateness of the factor model in the study hypothesis and to evaluate the reliability and validity of the questionnaire questions, it is advisable to perform confirmatory factor analysis once the exploratory factor analysis is finished (Perry et al., 2015). This study employed confirmatory factor analysis on the data of the measurement model using AMOS25.0 to assess the reliability and validity of the potential variables. During confirmatory analysis, it is crucial to assume a cross-loading of 0 and assess if the factor measurement model satisfies the fitting criteria. The following perform validity tests for the four potential variables of this study. This study aimed to assess the reliability of individual items in digital literacy and the convergent validity of the digital literacy variable model. To achieve this, the study analyzed factor loadings, composition reliability (CR) values, and average variation extraction amount (AVE) values. Shrestha (2021) states that a factor loading value of ≥ 0.6 suggests a satisfactory match, while a value of ≥ 0.7 implies an optimal fit. Fornell and Larcker (1981) propose using a composite reliability (CR) value larger than 0.7 and an average variance extracted (AVE) value greater than 0.5 in confirmatory factor analysis (CFA). Tables 4-17 reveal that the standardized factor load of each measurement indicator for every variable exceeds 0.6, the composition reliability (CR)

surpasses 0.7, and the average variation extraction amount (AVE) is higher than 0.5. These findings indicate that each variable exhibits strong convergence validity.

Table 2 Construct Reliability and Validity

| Variables | Dimensions | Item | Cronbach's Alpha | Factor loading | CR | AVE |
|--------------------|---------------------|------|------------------|----------------|-------|-------|
| Digital Literacy | Digital Awareness | DA1 | 0.871 | 0.752 | 0.872 | 0.577 |
| | | DA2 | | 0.753 | | |
| | | DA3 | | 0.775 | | |
| | | DA4 | | 0.799 | | |
| | | DA5 | | 0.718 | | |
| | Digital Knowledge | DK1 | 0.892 | 0.707 | 0.894 | 0.584 |
| | | DK2 | | 0.817 | | |
| | | DK3 | | 0.74 | | |
| | | DK4 | | 0.763 | | |
| | | DK5 | | 0.823 | | |
| | | DK6 | | 0.728 | | |
| | Digital Behavior | DB1 | 0.882 | 0.809 | 0.885 | 0.606 |
| | | DB2 | | 0.799 | | |
| | | DB3 | | 0.73 | | |
| | | DB4 | | 0.773 | | |
| | | DB5 | | 0.78 | | |
| | Digital Capability | DC1 | 0.839 | 0.78 | 0.84 | 0.567 |
| | | DC2 | | 0.774 | | |
| | | DC3 | | 0.698 | | |
| | | DC4 | | 0.758 | | |
| | Digital Values | DV1 | 0.82 | 0.851 | 0.826 | 0.614 |
| | | DV2 | | 0.731 | | |
| | | DV3 | | 0.763 | | |
| Financial Literacy | Financial Knowledge | FK1 | 0.857 | 0.786 | 0.86 | 0.552 |
| | | FK2 | | 0.729 | | |
| | | FK3 | | 0.667 | | |
| | | FK4 | | 0.764 | | |
| | | FK5 | | 0.763 | | |
| | Financial skills | FS1 | 0.886 | 0.778 | 0.886 | 0.61 |
| | | FS2 | | 0.733 | | |
| | | FS3 | | 0.854 | | |
| | | FS4 | | 0.803 | | |
| | | FS5 | | 0.73 | | |
| Household | Financial | FIW1 | 0.915 | 0.812 | 0.916 | 0.644 |

| | | | | | | |
|--------------------|-------------------------------|------|-------|-------|-------|-------|
| Financial Behavior | Investment Willing | FIW2 | | 0.845 | | |
| | | FIW3 | | 0.766 | | |
| | | FIW4 | | 0.807 | | |
| | | FIW5 | | 0.844 | | |
| | | FIW6 | | 0.737 | | |
| | Financial Consumption Willing | FCW1 | 0.87 | 0.83 | 0.873 | 0.581 |
| | | FCW2 | | 0.768 | | |
| | | FCW3 | | 0.69 | | |
| | | FCW4 | | 0.782 | | |
| | | FCW5 | | 0.733 | | |
| | Credit Willing | CW1 | 0.908 | 0.877 | 0.909 | 0.625 |
| | | CW2 | | 0.821 | | |
| | | CW3 | | 0.726 | | |
| | | CW4 | | 0.779 | | |
| | | CW5 | | 0.77 | | |
| | | CW6 | | 0.762 | | |
| Risk Attitude | Risk Attitude | RA1 | 0.894 | 0.84 | 0.895 | 0.631 |
| | | RA2 | | 0.776 | | |
| | | RA3 | | 0.793 | | |
| | | RA4 | | 0.811 | | |
| | | RA5 | | 0.748 | | |
| | | | | | | |

A practical test should exhibit convergent validity correlated with other tests that measure the same construct and discriminant validity uncorrelated with tests that measure distinct constructs. Therefore, in the study, after the completion of convergent validity testing, the discriminant validity testing of the model has to be complete as well. This study employs the AVE square root approach, which is widely recognized and rigorous, to examine discriminant validity. In accordance with the study conducted by Fornell and Larcker (1981), it is recommended to compare the square root of the average variance extracted (AVE) with the correlation coefficient of the factor. If the square root of AVE exceeds the correlation coefficient between these component and other factors, it indicates strong discriminant validity. The square root of AVE can be used to quantify the aggregation of the factor, whereas the correlation coefficient quantifies the correlation. If the factor exhibits a robust 'convergent' (considerably stronger than its correlation coefficient with other variables), it suggests that it possesses discriminant validity.

In Table 4-24, the diagonal line represents the square root of AVE, whereas the other values represent correlation coefficients. For instance, the square root value of the AVE (Average Variance Extracted) for Digital Awareness (DA) is 0.760, surpassing the maximum absolute value of the correlation coefficient between factors, which is 0.598. This indicates that DA exhibits strong discriminant validity. Similarly, the other factors also demonstrate good discriminant validity, suggesting that the analysis is reliable. The scale exhibits strong discriminant validity. Refer to Table3 for precise statistics.

Table 3 Variable correlation coefficient matrix

| | DA | DK | DB | DC | DV | FK | FS | RA | FIW | FCW | CW |
|-----|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| DA | 0.760 | | | | | | | | | | |
| DK | .555* * | 0.764 | | | | | | | | | |
| DB | .560* * | .520* * | 0.778 | | | | | | | | |
| DC | .510* * | .521* * | .595* * | 0.753 | | | | | | | |
| DV | .534* * | .528* * | .541* * | .515* * | 0.784 | | | | | | |
| FK | .398* * | .387* * | .389* * | .363* * | .406* * | 0.743 | | | | | |
| FS | .261* * | .219* * | .188* * | .229* * | .196* * | .554* * | 0.781 | | | | |
| RA | .376* * | .376* * | .341* * | .348* * | .381* * | .384* * | .306* * | 0.794 | | | |
| FIW | .491* * | .503* * | .515* * | .519* * | .530* * | .521* * | .442* * | .412* * | 0.802 | | |
| FCW | .598* * | .583* * | .588* * | .587* * | .601* * | .537* * | .423* * | .435* * | .571* * | 0.762 | |
| CW | .591* * | .559* * | .545* * | .524* * | .532* * | .548* * | .373* * | .408* * | .532* * | .612* * | 0.791 |

**, $p < 0.01$

Note: DA= Digital Awareness, DK= Digital Knowledge, DB= Digital Behavior, DC= Digital Capability, DV= Digital Values, FK= Financial Knowledge, FS= Financial skills, FIW= Financial Investment Willing, FCW= Financial Consumption Willing, CW= Credit Willing, RA= Risk Attitude.

Structural Model

The structural model is based on the framework of this study to determine the impact between the two independent variables digital literacy and financial literacy on the dependent variable financial behavior.

Utilize the AMOS25.0 software to execute computations and employ the highest likelihood strategy for estimating. The results are displayed in the figure 2 depicted below.

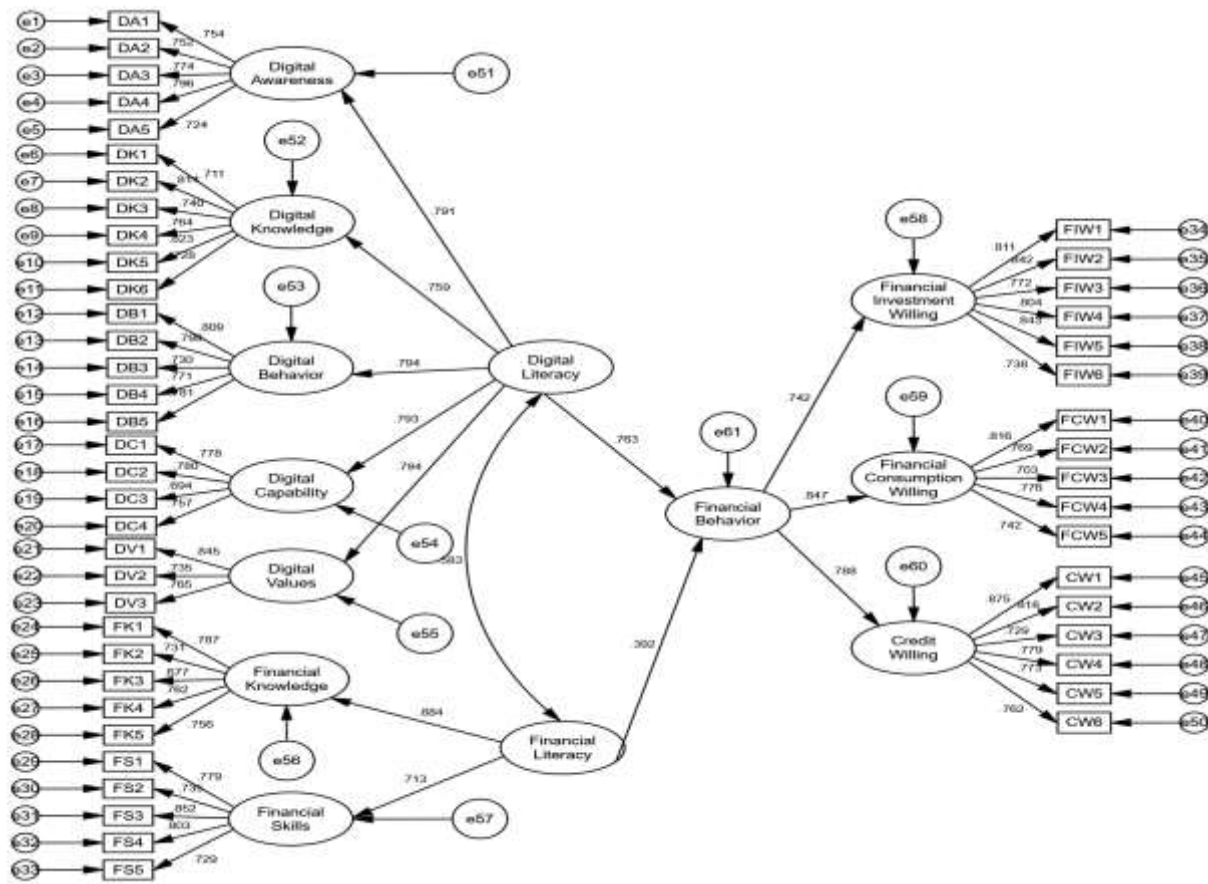


Figure 2 Structural Equation Model

This study conducted a fit analysis on the overall model. Table 4 displays a CMIN/DF value of 1.184, which is below 3. GFI, AGFI, NFI, TLI, IFI, and CFI all exceed the threshold of 0.9. The RMR value is 0.048, which is below 0.08. The Root Mean Square Error of Approximation (RMSEA) is 0.017, which falls below the threshold of 0.08. Every plan Given that all the combined indicators satisfy the overall research criteria, it can be concluded that this model exhibits a strong match.

Table 4 Model Fit Analysis Results

| Type of Measure | Acceptable Level of Fit | Values | Result |
|-----------------|-------------------------|----------|--------|
| CMIN | — | 1375.681 | — |
| DF | — | 1162 | — |
| CMIN/DF | <3 | 1.184 | Good |
| RMR | <0.05 | 0.048 | Good |
| GFI | >0.9 | 0.920 | Good |
| AGFI | >0.9 | 0.912 | Good |
| NFI | >0.9 | 0.929 | Good |
| IFI | >0.9 | 0.988 | Good |
| TLI | >0.9 | 0.988 | Good |

| | | | |
|-------|-------|-------|------|
| CFI | >0.9 | 0.988 | Good |
| RMSEA | <0.08 | 0.017 | Good |

From Table5, it can be seen that Digital Literacy has a significant positive impact on Financial Behavior ($\beta=0.763$, $p<0.05$), and the hypothesis is established; Financial Literacy has a significant positive impact on Financial Behavior ($\beta=0.392$, $p<0.05$) directional influence, the hypotheses are established.

Table 5 The Result of Path Analysis

| Path | | | Standardized Coefficient | Unstandardized Coefficients | S.E. | C.R. | P | significant result |
|--------------------|------|--------------------|--------------------------|-----------------------------|-------|--------|-----|--------------------|
| Financial Behavior | <--- | Digital Literacy | 0.763 | 0.865 | 0.071 | 12.266 | *** | significant |
| Financial Behavior | <--- | Financial Literacy | 0.392 | 0.407 | 0.049 | 8.278 | *** | significant |

***, $p<0.001$

Moderation Effect

Next, this study examined the moderating effect of risk attitude. Setting the gender, education level, age, monthly income, and occupation as control variables, digital literacy and financial literacy as independent variable, RA as moderating variable, and financial behavior as dependent variable, a moderating analysis was conducted to obtain the following table.

Table 6 The moderating effect of RA

| | Model 1 | Model 2 | Model 3 | Model 4 | | Model 1 | Model 2 | Model 3 | Model 4 |
|--------------------------------|---------------|----------------|----------------|----------------|--------------------------------|---------------|---------------|---------------|---------------|
| Gender | -0.102** | -0.014 | -0.006 | -0.005 | Gender | -0.102** | -0.016 | -0.001 | -0.002 |
| Educational | 0.14*** | 0.043 | 0.041 | 0.045 | Educational | 0.14*** | 0.071* | 0.064* | 0.059* |
| Age | 0.142** * | 0.015 | 0.018 | 0.016 | Age | 0.142** * | 0.049 | 0.05 | 0.05 |
| Income | 0.151** * | 0.018 | 0.01 | 0.008 | Income | 0.151** * | 0.068* | 0.047 | 0.045 |
| Occupation | 0.012 | -0.006 | 0 | -0.002 | Occupation | 0.012 | 0.034 | 0.038 | 0.032 |
| DL | | 0.805** * | 0.738** * | 0.738** * | FL | | 0.604** * | 0.498** * | 0.51*** |
| RA | | | 0.15*** | 0.162** * | RA | | | 0.287** * | 0.305** * |
| DL*RA | | | | 0.076** | FL*RA | | | | 0.146** * |
| R² | 0.082 | 0.673 | 0.691 | 0.697 | R² | 0.082 | 0.416 | 0.485 | 0.506 |
| Change of R² | 0.082 | 0.591 | 0.018 | 0.006 | Change of R² | 0.082 | 0.334 | 0.069 | 0.021 |
| F | 10.856* ** | 208.135 *** | 193.233 *** | 173.391 *** | F | 10.856* ** | 71.989* ** | 81.531* ** | 77.335* ** |

*, p<0.05; **, p<0.01; ***, p<0.001

It was found that the simple slope graph also gave the same result, that is the moderating variable makes the relationship between the two stronger.

Based on the data analysis results, both digital literacy and financial literacy have a significant impact on family financial behavior, and the moderating effect of risk attitude is also significant. Therefore, H1, H2, and H3 are all supported. Financial literacy refers to an individual's capacity to comprehend and analyze economic information, enabling them to make well-informed choices on financial planning, asset building, debt management, and retirement savings (Lusardi & Mitchell, 2019). The rapid advancement of digital technology has a growing influence on family financial market involvement and consumption behavior, making digital literacy increasingly important. According to Wang et al. (2022) households with higher digital literacy are more likely to obtain and understand financial market information, invest and manage money more effectively, thereby improving market participation. Risk attitudes can irrationally adjust households' financial decisions. According to Xie et al., (2022), an increase in risk aversion has a notable impact on the status of household debt holding, the amount of debt, and preferences for borrowing channels. Moderating effect analysis found that overall risk attitude plays a positive moderating role in the financial literacy on stock market participation and the proportion of stock asset allocation.

CONCLUSION

This research uses structural equation modeling to explain how digital literacy and financial literacy affect household financial behavior. In the context of the close integration of China's digital economy and finance, residents' digital literacy and financial literacy will affect the performance of household financial behavior. And this study also uses risk attitude as a moderating variable and examines its moderating effect between digital literacy and financial behavior and its moderating effect between financial literacy and financial behavior. Statistics show that the moderating effect of risk attitude is obvious.

In this research, it was found that the overall digital financial literacy level of Chinese residents is relatively high. Although all parties have made active attempts to promote the construction of digital financial literacy among consumers and have achieved certain results, compared with the depth and development speed of digital financial innovation, the construction of digital financial literacy among Chinese consumers still faces some practical challenges (Su et al., 2021). It is necessary to unite the forces of government, industry, and academia to take targeted measures to solve the problem. Firstly, Chinese government has to strengthen the supply of essential resources for digital financial education and establish a multi-level digital financial education resource system. Secondly, the government is committed to building a diversified and collaborative digital financial education landscape to help residents comprehensively improve their financial and digital literacy. Thirdly, as a product of the deep integration of finance and technology in the digital era, digital finance has the characteristics of fast innovation, comprehensive coverage, and substantial risk spillovers, which bring potential risks to financial consumers' property and data security. Government also has to work for enhancing consumers' digital financial risk identification and prevention awareness. Protect consumers from personal financial losses.

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029-052

DEVELOPING SELF-ASSESSED BANKRUPTCY PROBABILITY MODEL AMONG CIVIL SERVANTS IN PUTRAJAYA, MALAYSIA

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ABSTRACT

The mounting debt that is leading to the bankruptcy of civil servants in the country is a cause for concern. The study aims to investigate the relevant factors from a subjective and objective viewpoint that influences civil servants' self-assessed bankruptcy probability and to create a bankruptcy probability model among civil servants in Putrajaya, Malaysia. The investigation focuses on the association between the probability of bankruptcy and factors such as asset ownership, economic concerns on future finances, attitude toward debts, financial management practices and financial ratio. The Theory of Reasoned Action (TRA), Theory of Conspicuous Consumption, and Family Systems Management Model are used to accomplish this. The selection of 399 Malaysian civil servants from Putrajaya as a sample was achieved by using electronic questionnaires at five ministries to collect data for multistage cluster sampling. The analysis utilised binary logistic regression and independent t-tests. Several variables, such as age, marital status, number of children, occupational grade, economic concerns on future finances, attitude toward debts, financial management practices, asset ownership and financial ratio were significant predictors of self-assessed bankruptcy probability. With a $\chi^2 (17, N = 399) = 173.41$ $p < .001$ statistical significance, the logistic regression model demonstrated its efficacy in differentiating between individuals who believed they had a risk of bankruptcy and those who did not. Despite having stable incomes, civil servants may still encounter financial difficulties due to mismanagement of funds, unexpected expenses, or debts. Assessing their financial risk and taking preventive actions before problems escalate could be achieved through a bankruptcy probability model.

Keywords: Self-Assessed Bankruptcy Probability, Asset Ownership, Economic Concerns On Future Finances, Attitude Toward Debts, Financial Management Practices, Financial Ratio.

057-054

THE SOCIAL IMPACT OF MICROFINANCE IN SUDAN DURING CONFLICT: A COMPREHENSIVE ANALYSIS

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ABSTRACT

This paper delves into the social impact of microfinance initiatives in Sudan during times of conflict. Microfinance, as a tool for financial inclusion, has gained prominence globally for its potential to alleviate poverty and empower marginalized communities. However, its effectiveness in conflict zones, such as Sudan, remains a subject of critical examination. This study employs a multidimensional approach to assess the social implications of microfinance interventions, considering the economic, cultural, and gender-related aspects. Through an extensive literature review, case studies, and interviews with stakeholders, the research seeks to elucidate the role of microfinance in promoting resilience, community development, and gender equality amidst the challenges posed by conflict. By exploring both success stories and potential pitfalls, this paper aims to provide a nuanced understanding of the impact of microfinance in Sudan during periods of instability. The findings will contribute valuable insights for policymakers, practitioners, and researchers involved in the design and implementation of microfinance programs in conflict-affected regions.

Keywords: Microfinance, Social Impact, Economic Empowerment, Community Development, Gender Equality.

059-057

DEVELOPMENT OF PREDICTION MODEL ON STUDENTS' PERFORMANCE USING SOCIAL CAPITAL VARIABLES: CASE STUDY AMONG UNIKL BUSINESS SCHOOL STUDENT

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ABSTRACT

The objective of this research is to create a prediction model for academic performance among Universiti Kuala Lumpur Business School (UBIS) students by utilizing social capital characteristics. The study investigates the connections between many facets of social capital, such as reciprocity, trust, network relationships, and community involvement, and students' academic performance. To ensure diverse representation, data was gathered from a sample of UBIS students using structured questionnaires and multistage cluster sampling. Descriptive statistics, correlation analysis, and multiple regression approaches were used in the investigation to find important academic performance variables. The findings show that social capital factors—strong network connections, high trust, and involvement in community activities—have a substantial positive impact on academic performance. This study's prediction model shows strong statistical significance, underscoring the crucial influence of social capital on educational attainment. These findings highlight how crucial it is for educational institutions to build social capital in order to improve student performance. The study offers a framework for educators and policymakers to incorporate social capital development techniques into educational initiatives with the goal of enhancing university students' academic performance.

Keywords: Prediction Model, Students' Performance, Social Capital, Descriptive Statistics, Correlation Analysis, Multiple Regression.

065-063

ENHANCING THE CAMELS FRAMEWORK: INTEGRATING SHARIA CONSIDERATIONS INTO THE CAMELS FRAMEWORK - A CASE STUDY OF MALAYSIAN SCHOLARS AND EXPERTS

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ABSTRACT

This study investigates the integration of Sharia considerations into the CAMELS framework to improve the evaluation of Islamic banking performance, with a particular focus on Malaysian Islamic banks. Through comprehensive interviews with Sharia scholars and experts, the research identifies deficiencies in the current CAMELS framework and suggests strategic enhancements. Traditional CAMELS metrics, which assess Capital Adequacy, Asset Quality, Management Quality, Earnings Efficiency, and Liquidity, often fall short in capturing the essential Sharia compliance aspects crucial to Islamic banking operations.

The research explores which Sharia principles are most relevant to Islamic banking and aims to incorporate these principles into the CAMELS evaluation framework. To address the identified gaps, the study proposes new metrics specifically designed to measure Sharia compliance effectively. These proposed metrics complement the traditional CAMELS components, offering a more holistic assessment of Islamic banks' performance. The findings emphasize the importance of incorporating specific Sharia compliance metrics and supervisory matrices that align with the distinctive characteristics of Islamic financial products. By addressing these gaps, the enhanced CAMELS framework aims to provide a more comprehensive evaluation of the stability and performance of Islamic banks.

This study contributes valuable insights into regulatory practices and governance mechanisms within the Islamic banking sector. It advocates for improved methodologies that not only consider financial metrics but also ensure adherence to Sharia principles. By integrating these aspects, the research aims to support the development of a more robust and reliable framework for assessing Islamic banking performance, ultimately contributing to the growth and stability of the Islamic financial industry.

Keywords: Sharia Compliance, Islamic Banking, CAMELS Framework, Sharia Governance, Banking Stability.

069-067

IMPACT OF WOMEN TOP MANAGEMENT TOWARDS PAY DISPARITY IN LISTED COMPANIES IN MALAYSIA

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ABSTRACT

Director pay and remuneration policy have become contentious issues of late. In Malaysia, Sapura Energy Berhad and Felda Global Ventures Berhad are two recent cases of inexplicably large top management pay not commensurate with company performances, which attracted the attention of investors, regulators, and minority shareholders. Huge pay disparity between top management and employees is also in the spotlight since this pay practice is at odds with the United Nations Sustainable Development Goals (SDG 17) on reducing inequalities. Acknowledging this concern, the latest Corporate Governance Monitor 2020 issued by the Securities Commission continues to highlight the top management pay practices and disclosures. The purpose of this study is to explore the association of women on board and women Chief Financial Officer (CFO) towards the pay disparity in listed companies in Malaysia, using the agency, gender, stewardship, stakeholders, and tournament theories. The sample consists of 122 companies listed on Bursa Malaysia. Their compliances with Practices 7.2 and 7.3 of the Malaysian Code on Corporate Governance (MCCG) 2017 are noted. This study found insignificant relationships between women on board and women CFO towards pay disparity in listed companies in Malaysia. Supporting the five theories, this study provides the basis for policymakers to emphasize the importance of women on the board and top management as well as contributes to the current debate on the desirability of mandating more women on board and top management.

Keywords: Women on Board, Top Management, Pay Disparity, Pay Practices, Public Listed Companies.

1. Introduction

Over the past decade, there has been a significant increase in the number of women in the top executive team around the world (Catalyst, 2020). As stated in 2019, the proportion of women in senior management roles grew to 29%, the highest number ever recorded globally. In 2020, this percentage remains the same. Grant Thornton in its report, ‘Women in Business 2020: Putting the Blue Print into Action’, indicates that 87% of the global mid-market companies have at least one woman in a senior management role in 2020. As at August 2020, the proportion of women in senior leadership continues to differ by roles and responsibilities. Women are over-represented in support functions like administration, while men tend to be concentrated in frontline operations such as sales and advertising, promotional activities and research and development. These functions are viewed as critical experiences for a Chief Executive Officer (CEO) and board-level positions. According to Grant Thornton, in 2020, 40% of human resources directors are women, compared to 17% of chief marketing officers and 16% of chief information officers.

As shown in Table 1.1, the proportion of women in senior leadership in 2020 differs by region and is reaching approximately 25% to 40%. With these increases, researchers have begun to investigate the impact of female executives on various corporate decisions, such as financing, investment, mergers and acquisitions and going public, among others. For example, the studies by Martinez-Jimenez, Hernández-Ortiz and Cabrera Fernández (2020), Bunget, Mates, Dumitrescu, Bogdan and Burca (2020), Usman, Farooq, Zhang, Dong and Makki (2019), Garcia-Sanchez, Martínez-Ferrero and García-Meca (2017) and Post and Byron (2015) are the recent studies that have focused on the impact of women on the board and on the top management team towards company’s performance, board effectiveness and corporate sustainability.

Table 1.1
Women in Senior Leadership by Region

| Region | Percentage of Women in Senior Management |
|----------------|--|
| Africa | 38% |
| Eastern Europe | 35% |
| Latin America | 33% |
| European Union | 30% |
| North America | 29% |
| Asia Pacific | 27% |

In general, these researchers have found that corporate decisions made by women executives are significantly different from those made by male executives. However, in the corporate governance literature, evidence on whether or not there exists a gender effect on pay practices such as pay disparity, disclosure and CEO’s remuneration, is limited and the results are mixed (Strobl, Rama and Mishra, 2016; Bugeja, Matolcsy and Spiropoulos, 2016; Park, 2017 and Rouen, 2020). As such, in Malaysia’s context, there is a need to investigate these pay practices as they have become the key issues in the recent shareholders’ concerns and corporate governance debates. For example, doubts about pay differences has resulted the authorities to impose further regulations that take effect the compulsory of revealing detail information of

executive pay. A policy required by the largest investors of listed companies in Malaysia, the Employees Provident Fund (EPF) as mentioned in item numbers 6 and 7 in the 2019 EPF Voting Guidelines (Appendix 1). Additionally, the inclusion of Practice 7.2 and 7.3 in the Malaysian Code on Corporate Governance (MCCG) in 2017 that required listed companies to disclose the details of remuneration for the top five key management personnel by banding amount and by names of each personnel.

Around the globe, debates about gender and wealth inequality are on the rise and are becoming major challenges to business sustainability. In 2015, all United Nations Member States adopted the Sustainable Development Goals (SDGs), also known as the Global Goals, as a universal call to implement actions to overcome inequality and poverty, protect the environment and ensure that the people of all nations have a harmonious and prosperous life by 2030. The 17 SDGs, as shown in Figure 1.1, are interrelated, in that one area of intervention will impact other areas, to ensure social, economic and environmental sustainability is balanced.

Figure 1.1
Sustainable Development Goals



Source: 2015 UN Global Compact

It is aimed that by year 2030, the SDG initiatives can substantially increase the availability of high-quality, timely and reliable information, broken down by remuneration, gender, age, race, ethnicity, migratory status, disability, geographic location and other characteristics relevant in national contexts. The SDG also aims to enhance capacity and building support for developing countries, including for least developed countries and small island developing states (UN Global Compact Report, 2015). Subsequently after the year 2030, the main agenda to be focused on by the SDG will be to build on existing initiatives to develop measurements for sustainable development and progress. This agenda will subsequently relate to increasing gross domestic product (GDP) and supporting capacity building in developing countries (Malaysia SDG Report 2017). Since the inequality issue is considered as a global setback by the United Nations, this study explores the relationship between SDG 5 – Gender Equality, SDG 8 – Decent Work and Economic Growth and SDG 10 – Reduced Inequalities, to investigate the influence of gender

diversity in the top level management on pay disclosure of listed companies in Malaysia. As at 31 August 2020, gender diversity on the boards of listed companies showed slight improvement at 24.82% (2018: 23.68%) for the top 100 listed companies and 16.96% (2018: 15.69%) across all listed companies. Currently, there are five companies with an all-male board among the top 100 listed companies, namely, Comfort Glove Berhad, Focus Dynamics Group Berhad, Frontken Corporation Berhad, Guan Chong Berhad and Pentamaster Corporation Berhad (Corporate Governance Monitor 2020 and 2019). While Malaysia has made significant progress over the past few years in reducing gender inequality, the extent of gender inequality is still high compared to other developing countries. In 2020, as shown in Table 1.2, there were no female CEOs among listed companies in Malaysia. The highest C-Suite position held by women was Chief Financial Officer (CFO) (Hirschmann, 2020).

Table 1.2
Percentage of Women Position in Companies in Malaysia

| Position | Percentage of Women in Management |
|---|-----------------------------------|
| Shared Services | 43% |
| CFO | 29% |
| Women in Top Management | 23% |
| Other Strategy (Human Capital/Administration) | 21% |
| Business Management | 20% |
| CEO | 0% |

Source: Statista 2020

Women have less opportunity to participate in the economy than men, less access to elementary and higher education, increased health and safety risks and less representation in the government. In countries which practise a single-board structure, like Malaysia, gender diversity on the boards is particularly important. Board and top management appointments are generally decided by major shareholders of the company, resulting in the selection of managers based on a network of "old boys" or "people like us" or even on the "crony type" of traditionally middle and similar race who may contribute to "group thinking". Diversity in boards, such as gender diversity, can guarantee the scope and depth of board decisions.

Director pay and remuneration policy have become contentious issues of late. In Malaysia, Sapura Energy Berhad and Felda Global Ventures Berhad are two recent cases of inexplicably large top management pay not commensurate with company's performances, which attracted the attention of investors, regulators and Minority Shareholders Watch Group. In addition, huge pay disparity between top management and employees is also in the spotlight since this pay practice is at odds with the United Nation's SDG on reducing inequalities. Acknowledging this concern, the Malaysian Budget 2019 stipulates that listed companies must disclose key pay metrics in their annual reports. Moreover, the latest Corporate Governance Monitor 2020 issued by the Securities Commission continues to highlight the lack of detailed disclosures on top management pay.

On another issue, as mentioned earlier, the extent of gender inequality is still high in Malaysia compared to other developing countries. It is not clear how far gender inequality has affected the top management in companies as the involvement of women on the board is still at a low percentage, at 16.96% (2018: 15.69%) across all listed companies (own source). Having said that, women, by their nature, are more detailed and transparent in expressing their views and opinions. The involvement of more women in board and top level management in companies might influence organisational performance including pay reward and disclosure. In terms of fairness and wealth equality, shareholders are entitled to know how the compensation of directors and top managers is related to the success of the companies. In Malaysia, most businesses are inclined not to reveal how much they pay top managers, let alone offering information that will allow investors to understand how compensation and corporate performance are interlinked. Therefore, it is not surprising that remuneration of senior management is considered "wetter in Malaysia than many other markets" as reported in the biennial Corporate Governance Watch, 2016. To overcome the opacity in remuneration disclosure, in Malaysia, the Malaysian Code on Corporate Governance (MCCG) has adopted three best practices in 2017: Practice 7.1, Practice 7.2 and Practice 7.3 as listed below, to enhance the transparency related to remuneration of directors and top executives:

1. Practice 7.1

There is detailed disclosure on named basis for the remuneration of individual directors. The remuneration breakdown of individual directors includes fees, salary, bonus, benefits in-kind and other emoluments.

2. Practice 7.2

The board discloses on a named basis the top five (5) senior management's remuneration component including salary, bonus, benefits in-kind and other emoluments in bands of RM50,000; and

3. Practice 7.3

Companies are encouraged to fully disclose the detailed remuneration of each member of senior management on a named basis.

Through these requirements, stakeholders are able to assess whether the remuneration of directors and top management is commensurate with their individual performance, taking into consideration the companies' performance. Besides the proactive strategies implemented by the Securities Commission (SC) through rules and the MCCG practices, the Corporate Governance Monitor 2020 issued by the SC on 8 October 2020, has revealed that there are 122 companies that disclosed top five senior management pay on a named basis. Based on this research, it is found that out of 122 sample of companies in Bursa Malaysia, 84 companies complied with Practice 7.2 (disclose on a named basis the top five senior management's remuneration component in bands of RM50,000), and 38 companies disclose the detailed remuneration amount

(not by band numbers) for each member of senior management on a named basis, as recommended in Practice 7.3.

The board of directors' remuneration, which is part of the compensation of senior executives, is an on-going debate, especially in the Western world. Specifically, issues concerning remuneration for management, have been drawing the attention of corporate stakeholders since the recession that has been plaguing economies since the beginning of the Asian financial crisis in 1997. In Malaysia, corporate governance matters are the most important issues among corporate entities, for example, on the disclosure of managers' compensation. The reliability, relevancy and lack of transparencies still exist as compared to other developed countries, like the US, the UK and Australia. Developing countries, such as Malaysia, have put very little attention on this matter, unlike the situation in the developed markets which have seen much improvement in the reporting of executive compensation.

2.0 LITERATURE REVIEW

Karim (2021) indicates that there is a significant relationship between remuneration patterns of the top management and socially responsible activities. In the same way, executive board gender diversity significantly moderates the top management remuneration. Canace, Cianci, Liu and Tsakumis (2020) found that firm board characteristics (i.e., gender diversity, board independence, board size, and board busyness) affect the management remuneration and traits relation. On another study, Baixauli-Soler, Lozano-Reina and Sánchez-Marín (2020) continue to examine how managerial discretion and, in particular, its different dimensions (individual, gender diversity, environmental and organizational) moderate the impact and the design of more aligned top management remuneration, and find that managerial discretion plays an important role in the effectiveness of pay decision as a mechanism for increasing aligned remuneration. Managerial discretion is positive when there is high level of both individual and contextual discretion. Hence, with the increasing number of the recent research that focuses on top management remuneration, there is a possibility that the top management gender plays a significant role in affecting the decision of remuneration paid. From previous research, very few of the studies have examined gender factors that influencing pay disparity, or indicate whether these studies have analysed in depth of gender factor that associates with the top management remuneration. Mohd-Shariff and Zainol-Abidin (2020) found that the incentive of top management in the companies would ensure the alignment of the top management remuneration and stakeholders' interest. Such studies may help, or mitigate companies in ensuring the top management remuneration is made based on appropriate amount and paid in accordance to the companies' level of financial strength.

In addition to the above, Raj (2022) found that it is proven that even though part of the corporate sector is making loss it is still paying an excessively high income to the CEOs, which is far beyond comparable to that sector. In fact, based on further analysis, there are few CEOs who are earning much higher income than the income band originally set by the company. On another findings, women top management has significant impact on companies' profitable but not towards remuneration decision (Hong et al., 2023).

The above remuneration irresponsibility triggers corporate governance researchers to better understand the director pay and remuneration policy, including the factors that explain the cross-sectional variations among Malaysian listed companies. As gender differences among top management in companies may influence the decisions of top management's remuneration and pay disclosure, this research investigates the impact of gender diversity in the upper echelons towards the likelihood of companies' decision on remuneration for top management, as well as to examine whether gender diversity can also explain pay disparity between the top management and the overall cost of employees' salary of the company.

3.0 METHODOLOGY

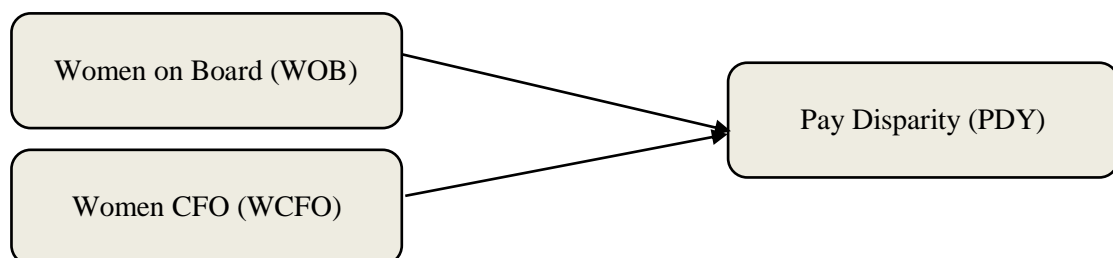
3.1 Sample and Data

Throughout the CGM 2020 Report, in 2018 and 2019, the SC observed positive levels of adoption across a majority of the MCCG's best practices. A total of 27 best practices had an adoption level of above 70%, i.e. of the 932 listed companies (2018: 988 companies); more than 70% had adopted these practices. Best practices that are related to board responsibilities, the audit committee and risk management and internal control framework had among the highest levels of adoption. In 2018, the statistics and observations on the level of adoption of the MCCG is based on disclosures made by 988 companies mentioned in CGM Reports 2019. Out of this, 84 listed companies disclose the detailed senior management remuneration on a named basis. From the 5 new adopters, 3 are mid-cap and small-cap companies. In addition to this, 737 listed companies have formalised a remuneration policy to guide the determination of remuneration for the board and senior management. In 2018, the total number in CGM Reports evaluate the quality of disclosure involve 711 companies. This study focuses on the total 988 listed companies in Bursa Malaysia for 2018 as basis for its general sampling.

3.2 Model Specification

This paper indicates the gender diversity on board and top management, herein refers to two important top position in listed companies, which is, Women on Board and Women CFO as an independent variable while the pay disparity as the dependent variable. An analysis structure of findings is therefore needed to help to understand the impact of the interaction between the associations on a company. It can be defined in a conceptual model of the framework and theories outlined above, which is organized as follows:

Figure 3.1
Model of Conceptual Framework



The regression model that will be used is:

$$Y = \beta_0 + \beta_1 [WOB] + \beta_2 [WCFO] + \beta_3 [BS] + \beta_4 [TA] + \beta_5 [LEV] + \beta_6 [INS] + \beta_7 [ROE] + \beta_8 [IND] + \beta_9 [AUD] + \epsilon$$

Where;

| | | |
|------------|---|--------------------------------|
| Y | = | <i>Pay Disparity</i> |
| TA | = | <i>Total Assets</i> |
| LEV | = | <i>Leverage Ratio</i> |
| INS | = | <i>Institutional Investors</i> |
| ROE | = | <i>Return on Equity</i> |
| IND | = | <i>Industry Type</i> |
| AUD | = | <i>Audit Firm Type</i> |
| WOB | = | <i>Women on Board</i> |
| $WCFO$ | = | <i>Women CFO</i> |
| β | = | <i>Slope of the line</i> |
| ϵ | = | <i>Estimated error</i> |

4.0 DISCUSSION AND FINDINGS

In Malaysia, there are still a limited number of prior studies that examine the relationship between women top management towards pay disparity. Despite the growing concern to increase women representation on the corporate level, together with evidences from past studies on the benefit of the inclusion of women on the board, the literature is still lacking. Taking this opportunity, this study examines the effect of women on top management on companies' top management pay disparity. This study emphasizes unique variables that focus entirely on the effect of two type dependant variables from women on top management, namely, women on board and women CFO. These two components are used as the number of women holding these positions are increasing in many companies and may influence the decision making of such companies. This study incorporates pay disparity as its dependant variable. There are seven control variables involve in this study, board size, total asset, leverage, institutional investors, ROE, industry type and audit firm type. Altogether, this study is aligned with two hypotheses.

This study collects the information from Bloomberg's database, Thomas Reuters' Data Stream and companies' annual report, covering a sample of 122 selected companies using a direct stratified sampling technique. These data covers one year, 2018 based on the CGM 2019 Report, with each collected data represents a number of 2,318 data/year evaluation of the independent variables, dependent variables and control variables. Results show that this study found an insignificant relationship between Women on Board and Women CFO towards pay disparity (as shown in Appendix 1, Table I to VII). This study also performed bivariate and multivariate studies on seven (7) control variables. The control variables tested are the board's size, total asset, leverages, institutional investors, ROE, industry type and audit firm type. However, only board size, total asset and institutional investors prove significant findings to the variables. For the rest, this study found an insignificant relationship between other control variables towards each of the hypotheses developed. Alternatively, this study found a positive effect of women on board towards total asset and institutional investors, and institutional investors towards total

asset. Result between board size and leverage, total asset and industry type also shows significant findings during the regressions. These significant findings can be considered in future research.

As this study possesses some evidences on women top management's ability to influence top management pay disparity, this finding may encourage companies to strictly monitor the remuneration policy, decision and remuneration transparency to avoid any misleading information. By appointing more women on board and top management, the tendencies for hiding important financial data will be blocked as women in their nature are more alert, fully aware and more detail than men. Findings in this study also provide an opportunity for companies to become more adaptive to situations that can improvise the whole business activities, for example, in ensuring the effectiveness of business operations, cost monitoring, increasing the shareholders' wealth, ensuring profitability and sustaining companies. On another note, this study has several limitations, such as, (i) it does not classify the result items in accordance to the specific industry type; (ii) excludes the missing of detail comparison in the data tabulation; (iii) considers information that are only gathered through the database and annual reports; (iv) does not analyse the specific position of women on top management; and (v) uses only one year data observation. With these limitations, suggestions are made to better improve future research, for instance, by (i) analysing the effect of women top management in accordance to different industry type and company value; (ii) including every detail information and comparison in data tabulation; (iii) collecting primary information data to support the findings from secondary data; (iv) including more studies based on different position held by women on top management; and (v) using an updated list of more than one year observed data or at least five years observation data.

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Appendix 1

Table I
Frequency Analysis for Independent Variables

| Variable | Frequency | Percentage |
|---|------------|--------------|
| Women on Board | | |
| Companies with no women on board | 43 | 35.2 |
| Companies with less than 20% women on board | 38 | 31.1 |
| Companies between 20% to 30% women on board | 26 | 21.3 |
| Companies with more than 30% women on board | 15 | 12.4 |
| Total | 122 | 100.0 |
| Women CFO | | |
| Companies with women CFO | 39 | 32.0 |
| Companies without women CFO | 83 | 68.0 |
| Total | 122 | 100.0 |
| Industry Type | | |
| Consumer Product & Services | 45 | 36.9 |
| Healthcare, Utilities, Transport, Telecommunication | 24 | 19.7 |
| Financial Institution | 17 | 13.9 |
| Industrial Product & Services | 9 | 7.4 |
| Property | 9 | 7.4 |
| Plantation | 7 | 5.7 |
| Technology | 5 | 4.1 |
| Power & Energy | 4 | 3.3 |
| Construction | 2 | 1.6 |
| Total | 122 | 100.0 |

Table II
Descriptive Analysis for Dependent Variable

| Variable | Measure Unit | Mean | Median | Min | Max | Standard Deviation |
|-------------------|--------------|---------|---------|--------|---------|--------------------|
| Pay Disparity | Percent (%) | 0.5503 | 0.5050 | 0.0300 | 1.4700 | 0.3733 |
| Top Executive Pay | RM Mil | 0.7344 | 0.7100 | 0.0900 | 2.2300 | 0.3773 |
| Women on Board | Percent (%) | 14.1148 | 13.0000 | 0.0000 | 57.0000 | 13.1502 |
| Women on Board | Numbers | 1.2295 | 1.0000 | 0.0000 | 4.0000 | 1.1627 |
| Women CFO | Yes/No (1/0) | 0.3197 | 0.0000 | 0.0000 | 1.0000 | 0.4683 |

Table III
Descriptive Analysis for Control Variables

| Variable | Measure Unit | Mean | Median | Min | Max | Standard Deviation |
|------------------------|--------------|---------|---------|---------|---------|--------------------|
| Board Size | Number | 8.5246 | 8.0000 | 4.000 | 14.0000 | 2.1750 |
| Total Asset | RM Bil | 0.9395 | 0.9200 | -1.0700 | 2.9100 | 0.7171 |
| Leverage | % | 23.5252 | 21.6000 | 0.1100 | 77.1600 | 17.6795 |
| Institutional Investor | % | 14.1700 | 0.0000 | 0.0000 | 84.4600 | 25.9180 |
| ROE | % | 0.8841 | 0.9350 | -0.7500 | 2.4100 | 0.5521 |
| Industry Type | 1 or 0 | 0.4344 | 0.0000 | 0.0000 | 1.0000 | 0.4977 |
| Audit Firm Type | 1 or 0 | 0.8525 | 1.0000 | 0.0000 | 1.0000 | 0.3561 |

Table IV
Pearson Correlation for All Variables

| ABV | Mean (SD) | WOB | WCFO | PDY | BS | TA | LEV | INS | ROE | IND | AUD |
|------|---------------|--------|--------|-------|--------|--------|--------|--------|-------|--------|-------|
| PDS | 0.71 (0.45) | .260** | .279** | 1 | .195* | .223* | .064 | .196* | .059 | -.139 | -.008 |
| BS | 8.52 (2.18) | .015 | .232* | .053 | 1 | .134 | .237** | .188* | -.075 | -.121 | .047 |
| TA | 0.94 (0.72) | .287** | .098 | -.112 | .134 | 1 | .180* | .280** | -.135 | .310** | .218* |
| LEV | 23.52 (17.68) | .029 | -.040 | .128 | .237** | .180* | 1 | -.009 | -.122 | .097 | .028 |
| INS | 14.17 (25.92) | .392** | -.056 | -.030 | .188* | .280** | -.009 | 1 | -.145 | .084 | .205* |
| ROE | 0.88 (0.55) | -.015 | -.051 | .116 | -.075 | -.135 | -.122 | -.145 | 1 | -.105 | .064 |
| IND | 0.43 (0.50) | .021 | .037 | .129 | -.121 | .310** | .097 | .084 | -.105 | 1 | -.008 |
| AUD | 0.85 (0.36) | .115 | -.062 | -.161 | .047 | .218* | .028 | .205* | .064 | -.008 | 1 |
| WOB | 14.11 (13.15) | 1 | .070 | -.106 | .015 | .287** | .029 | .392** | -.015 | .021 | .115 |
| WCFO | 0.32 (0.47) | .070 | 1 | -.125 | .232* | .098 | -.040 | -.056 | -.051 | .037 | -.062 |

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

* Correlation is significant at the 0.05 level (2-tailed).

Type of variables

PDY – Pay Disparity

BS – Board Size

TA – Total Asset

LEV – Leverage

INS – Institutional Investors

ROE – Return on Equity

IND – Industry Type

AUD – Audit Firm Type

WOB – Women on Board

WCFO – Women CFO

Measurement

Top management (TM) salary/staff salary

Number of directors

Total assets in billion (RM)

Ratio of liability that is governed by asset

% shareholding by institutional investors

Return on Equity (RM)

0/1 (0 for non-specialised industry)

0/1 (0 for non-big four auditor's firm)

% (at least one woman)

0/1 (0 for male CFO)

Table V
Multivariate Regression Analysis of Dependent Variables (Linear Regression)

| Model Summary | | | | | | | |
|--------------------|--------------------|--------------------|-----|-------------|---------------|-------|------------------|
| ANOVA ^a | | | | | | | |
| Source | Dependent Variable | Sum of Squares | Df | Mean Square | Durbin Watson | F | Sig ^b |
| Regression | PDY | 2.128 ^c | 9 | 0.236 | 1.791 | 1.798 | 0.076* |
| Residual | | 14.732 | 112 | 0.132 | | | |
| Total | | 16.860 | 121 | | | | |

a. Predictors: (Constant), AUD, IND, WCFO, LEV, WOB, ROE, BSIZE, TA, INS

b. Note: *p < .10, **p < .05, ***p < .01

- c. $R^2 = .126$ (Adjusted $R^2 = 0.056$)
d. $R^2 = .233$ (Adjusted $R^2 = 0.172$)
e. $R^2 = .261$ (Adjusted $R^2 = 0.201$)

Table VI
Ordinary Least Square (OLS) Regression Analysis for Pay Disparity

| Variable | Coefficient β | Standard Error | t-Statistics | p-Value |
|-------------------------|------------------------|----------------------|--------------|---------|
| [Constant] | | 0.176 | 2.504 | 0.014** |
| Women on Board | -0.066 | 0.003 | -0.658 | 0.512 |
| Women CFO | -0.133 | 0.075 | -1.420 | 0.158 |
| Board Size | 0.105 | 0.017 | 1.057 | 0.293 |
| Total Asset | -0.134 | 0.054 | -1.294 | 0.198 |
| Leverage | 0.129 | 0.002 | 1.364 | 0.175 |
| Institutional Investors | 0.046 | 0.001 | 0.441 | 0.660 |
| ROE | 0.150 | 0.062 | 1.647 | 0.102 |
| Industry Type | 0.188 | 0.072 | 1.959 | 0.053* |
| Audit Firm Type | -0.158 | 0.097 | -1.707 | 0.091* |
| R | R Square | Adjusted R Square | F | p-Value |
| 0.355 | 0.126 | 0.056 | 1.798 | 0.076* |

Note: * $p < .10$, ** $p < .05$, *** $p < .01$

Table VII
Summary of Findings and Support for Developed Hypothesis

| No | Research Question (RQ)* | Hypothesis | Results | Support for Hypothesis Developed | Theory Framework |
|----|---|--|---|---|------------------------------------|
| 1 | Do women on board have an impact towards pay disparity in Public Listed Companies in Malaysia? <i>Regression Equation</i> $Y = \beta_0 + \beta_1 [WOB] + \beta_2 [WCFO] + \beta_3 [BS] + \beta_4 [TA] + \beta_5 [LEV] + \beta_6 [INS] + \beta_7 [ROE] + \beta_8 [IND] + \beta_9 [AUD] + \epsilon$ | There is an association between women on board towards the pay disparity between top managements and employees. | <u>Regression 1</u> Univariate $\beta = .418, t = -.743, p > .10$ <u>Regression 2</u> Multivariate $\beta = -.066, t = -.658, p > .10$ | This study is unable to strongly support H1 given that women on board's effect on pay disparity are found to be insignificant in all regressions. The effects are similar to those of prior studies such as Rouen (2020), Usman, Siddique & Jafar (2019) and Choi (2018). | Agency, Gender & Tournament Theory |
| 2 | Do women CFO have an impact towards pay disparity in Public Listed Companies in Malaysia? <i>Regression Equation</i> $Y = \beta_0 + \beta_1 [WOB] + \beta_2 [WCFO] + \beta_3 [BS] + \beta_4 [TA] + \beta_5 [LEV] + \beta_6 [INS] + \beta_7 [ROE] + \beta_8 [IND] + \beta_9 [AUD] + \epsilon$ | There is an association between the presence of women CFO towards the pay disparity between top managements and employees. | <u>Regression 1</u> Univariate $\beta = .917, t = -1.380, p > .10$ <u>Regression 2</u> Multivariate $\beta = -.133, t = -1.420, p > .01$ | In all regressions, the coefficient of women CFO on pay disparity is found to be insignificant with a negative direction. The effect of women CFO on pay disparity is contradict to those of Fen & Riswandari (2019) and Hwang, Kim & Pae (2015). With an insignificant coefficient in all regressions, and $p > .10$, H4 is thus not supported. | Agency, Gender & Tournament Theory |

078-083

AN OVERVIEW OF FINANCIAL STRESS AND HEALTH OUTCOMES: THE MODERATING ROLE OF SOCIAL SUPPORT

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ABSTRACT

Investigating the population health and wellbeing has been a topic of interest during the past years due to the remarkable growth. The Sustainable Development Goals (SDG) index indicates that Malaysian health and wellbeing issues remain significant challenges. Taking into the important aspects, a PwC Asia Pacific survey from 2023 revealed that individual's financial circumstances have been the primary cause of stress which affects both their mental and physical health. This is also confirmed by the Bank Negara Malaysia (BNM) which reported that, household members are currently experiencing financial stress with B40 income groups are particularly vulnerable to issues related to increase cost of living and loss of income. Therefore, the purpose of this study is to discuss the influence of financial stress on health-related outcomes and social support as the role that buffers the relationship. The role of social support as suggested by previous research as an element in reducing stress may improve emotional stability, mental and physical health of individuals. The present study offers valuable insights for employers and organisations to provide focused interventions in strengthening social support with the aim of improving employee's health and well-being.

Keywords: Financial Stress, Mental Health, Physical Health, Social Support, B40 Household.

084-094

INFLUENCING FACTORS OF CHIDCARE PROVIDER ADOPTION OF ENVIRONMENT FRIENDLY TECHNOLOGIES IN MALAYSIA: A META-ANALYSIS

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ABSTRACT

This meta-analysis explores the factors influencing the adoption of environmentally friendly technologies by childcare providers in Malaysia. As environmental concerns become increasingly prominent, the integration of eco-friendly practices in various sectors, including childcare, has gained importance. The study begins with an introduction to the relevance of sustainable practices in childcare settings, highlighting the growing awareness and need for environmentally responsible care. The background section reviews existing literature on the adoption of green technologies, identifying key factors such as educational initiatives, policy support, and community involvement. Methodologically, the research synthesizes findings from multiple studies, employing a rigorous selection process to ensure comprehensive coverage of the influencing factors. The results reveal that the quality of environmental education, the strength of policy frameworks, and the level of community engagement are critical determinants in the adoption process. Additionally, the perceived benefits of these technologies, including cost efficiency and enhanced child safety, significantly impact providers' willingness to adopt. The impact of this study lies in its potential to inform policymakers, educators, and childcare providers, offering actionable insights that can drive the widespread adoption of environmentally friendly technologies in childcare settings across Malaysia. By understanding these influencing factors, stakeholders can develop targeted strategies to promote sustainable practices, ultimately contributing to the broader goal of environmental sustainability in the country.

Keywords: Sustainable Practices, Childcare Adoption, Environmental Education, Policy Support, Green Technologies.

EXPLORING THE DYNAMIC RESPONSE OF AGRICULTURAL PRODUCTION TO FINANCIAL STRESS USING ARDL AND QARDL MODELS

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ABSTRACT

The agricultural sector plays a vital role in ensuring food security for Malaysia and one of the sources of income for the countries and growing fast over decade. The Malaysian government has implemented various measures to address the challenges facing the agricultural sector and improve food security in the country. The government has also implemented various initiative such as subsidy for agricultural and government intervention in the market. The purpose of this study is to investigate the performance of Malaysia financial stability by examining the short and long run effects on agricultural production. This reaction on the performance output agricultural in Malaysia to monitor the output production with economic crisis. The monthly data selected agricultural product for the period of January 2015 to December 2022 was used for this study. We estimate an ARDL and Quantile ARDL model to analyze the relationship. Our results indicate crude palm oil and natural rubber have an integration with the financial stress. The crude oil palm and rubber is the largest contribution for Malaysia agricultural. Findings suggest to address the challenges facing the agricultural sector challenges facing include the stability of financial stress towards improving food security.

Keywords: Financial Stress, Food Security, Economic Growth, Volatility.

091-100

THE EFFECT OF BUDGETARY GOAL CLARITY, ACCOUNTING CONTROL, REPORTING SYSTEM AND THE UTILIZATION OF INFORMATION TECHNOLOGY ON THE GOVERNMENT PERFORMANCE ACCOUNTABILITY

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ABSTRACT

This research aimed to analyze the effect of budgetary goal clarity, accounting control, reporting system, and the utilization of information technology on the government performance accountability in the Yogyakarta Municipality Government. The data was primary data obtained using questionnaires with a purposive sampling technique. The object of this study was 49 Local Government Work Units, and the sample consisted of 134 respondents taken in March and April 2024. The data analysis technique used is using Partial Least Square (PLS) with the software SmartPLS 4.0. The hypothesis result shows accounting control, reporting system and the utilization of information technology have positive and significant effect on the government performance accountability in Yogyakarta Municipality Government. Meanwhile, that budgetary goal clarity has no significant effect on the government's performance accountability.

Keywords: Government Performance Accountability, Budgetary Goal Clarity, Accounting Control, Reporting System, Utilization of Information Technology.

092-101

ASSESSING TOURIST WILLINGNESS TO PAY FOR MANGROVE PETENGORAN ECOSYSTEM ENHANCEMENT: AN ECONOMIC VALUATION STUDY

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ABSTRACT

The Petengoran Mangrove Forest is a notable ecotourism area located in Lampung Province. Deforestation, habitat loss, overexploitation of resources and impact of climate change have been challenges to enhance the ecosystem quality. Economic valuation is a method used to determine the economic benefits of mangrove forests. This study aims to analyze the Willingness to Pay (WTP) of visitors to the Petengoran Mangrove and to examine the determinants of WTP based on visitors' socio-economic variables. The socio-economic variables of the visitors include gender, income, age, access, and facilities. The subjects of this study are visitors and the management of the Petengoran Mangrove Forest. The research employs a concurrent mixed methodology, integrating both quantitative and qualitative approaches simultaneously. This study utilizes primary data with 360 visitors selected through Accidental Random Sampling. For the qualitative method, purposive random sampling was used, and in-depth interviews were conducted with the mangrove forest management and the Tourism Department. The quantitative analysis tools include the Contingent Valuation Method (CVM) and the Binary Logistic method, while qualitative data are analyzed using content analysis. Based on the analysis, the average Willingness to Pay per person for the entrance fee to the Petengoran Mangrove Forest is IDR 23,000, determined through a bidding game. The result showed that visitors with higher income (0.021**), younger age (-0.061**) and higher facilities satisfaction (0.555**) highlighted considerable to pay more in WTP in supporting the ecosystem enhancement. The obstacles and challenges faced in managing the Petengoran Mangrove Forest as a tourist destination relate to site management, human resources, and waste management.

Keywords: Willingness-To-Pay (WTP), Mangrove Petengoran; Socio-Economy, Contingent Valuation Method (CVM).

093-102

CORPORATE GOVERNANCE AND CSR DISCLOSURE: EVIDENCE FROM INDONESIAN *SHARI'AH* COMPLIANT COMPANIES

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ABSTRACT

The implementation of corporate governance is very important as one of the processes to maintain the sustainability of the company's business in the long term which prioritises the interests of shareholders and stakeholders. This study aims to examine the influence of corporate governance mechanism on the Corporate Social Responsibility (CSR) disclosure. The samples are Indonesian *Shari'ah* compliant companies listed in *Shari'ah* security list. The study applied content analysis of companies' annual reports from 2017 to 2021 to investigate the CSR disclosure level. The results show that board of directors size, board of directors meeting, and foreign ownership have positive influence, audit committee size, institutional ownership, and managerial ownership have a negative influence, while the audit committee meeting has no significant influence on CSR disclosures. This study confirms the effect of corporate governance mechanism on CSR disclosure of Indonesian *Shari'ah* companies and conveys to policymakers the importance of disclosure and the factors that influence it from the perspective of corporate governance mechanism.

Keywords: Board of Directors, Audit Committee, Ownership Structure, Indonesia.

095-104

NAVIGATING THE INFRASTRUCTURE INVESTMENT LANDSCAPE: CRITICAL SUCCESS FACTORS

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ABSTRACT

This study explores the intricacies of infrastructure investment and the key factors influencing the success of sustainable infrastructure investment portfolios. It identifies six critical success factors (CSFs) including project management constraints, human factors, project team, stakeholder engagement, leadership capabilities, and strategic alignment. The strategic role of enterprise project portfolio management (EPPM), in supporting and sustaining the investments infrastructure project portfolio management (IPPM) delivery, execution, and decision-making throughout the project portfolio lifecycle, is identified. The paper emphasizes the importance of a robust (IPPM) delivery framework and strategic alignment, with investment and organizational goals. The findings also conclude that EPPM can contribute to achieving strategic objectives through centralized oversight, knowledge sharing, and navigating the complexities of a rapidly evolving infrastructure investment landscape. A comprehensive literature review was conducted to identify critical success factors for infrastructure investment projects. By examining the intersection of EPPM, AI, and infrastructure investment, the study explores the potential benefits of AI integration in enhancing organizational adaptability and responsiveness. It concludes that AI-integrated EPPM offers a promising approach to enhancing organizational agility by improving decision-making, automating tasks, optimizing resource allocation, and mitigating risks.

Keywords: Portfolio, Constraints, Stakeholder, Leadership, Artificial Intelligence.

1 INTRODUCTION

Understanding the critical success factors of sustainable infrastructure investment is essential. It affords stakeholders and sponsors to have a comprehensive overview of the factors that contribute to infrastructure investment project success and sustainability initiatives in the infrastructure projects portfolio ecosystem. According to [55] this information can be used by project and portfolio managers to improve their chances of success in implementing sustainable initiatives. Translating technical findings into actionable recommendations, collaborating with cross-functional teams, and building stakeholder buy-in, to ensure alignment with organizational infrastructure investment objectives [18]. As organizational project managers have a challenging role that is characterized by overwhelming responsibilities, chaotic busyness, lack of focus, and the need to prioritize efficiency [14][47]. This puts a significant burden on project managers, who must cope with a heavy workload, frantic activity, fragmented work, and a need for superficial solutions. Many research studies of building strategies emphasized the intricate and complex nature of infrastructure construction as an industry.

Infrastructure investment project success is a multidimensional phenomenon, and successful execution of projects is critical to organizations' success [47]. Therefore, before categorizing projects as a success or failure, it is necessary to determine the criteria upon which this evaluation is to be made. A synonym for success is effectiveness, which is measured in terms of the degree of objectives achievement. [17] opined that when the infrastructure investment project is being planned, an appropriate measuring tool for critical success factor analysis may need to be identified and defined. A confluence of these CSF empowers infrastructure portfolio and investment managers to harness, these factors as a strategic investment enabler rather than a standalone solution [40]. As such, this paper highlights the critical success factors for navigating the sustainable infrastructure investment landscape.

2 LITERATURE REVIEW

2.1 Overview on Infrastructure Project and Project Management

[16] argues that project management is essential for organizations to be able to successfully implement projects and achieve their intended investment outcomes. Infrastructure portfolio projects with strong project management are more likely to be successful in terms of meeting their objectives, staying on budget and schedule, and delivering the intended outcomes [19] [32] [33]. Furthermore, [11][9] found that project management is essential for achieving strategic goals, which are the long-term objectives of an organization. [25][26] found that through projects execution and implementation project management can help organizations to achieve their goals by delivering intended outcomes such as new products and services, improved customer experiences, and increased operational efficiency. They further opined that projects that are well-managed are more likely to achieve their desired results than projects that are not well-managed, however, although projects are often started with the best intentions, still the projects experience failure. This failure can stem from various reasons, such as running out of funds, exceeding time constraints, lack of clear communication, inadequate resource planning, underestimation of

required resources, and overburdening the project team with excessive workloads [19][32][33][11][9][25][26].

Table 8. Project Success Rates

| Description | Percentage | Source |
|--|------------|--------|
| IT projects that are unsuccessful | 68% | PMI |
| Organization that reports at least one project failure in the past 12 months | 70% | KPMG |
| Amount of project spending wasted due to poor project performance | 11% | PMI |
| Projects over \$100M that are successful | 2% | Oxford |

2.2 Project Management Constraints Dimension

[53] argues that project management constraints, also known as the triple constraint or iron triangle, are essential factors for infrastructure project success, encompassing time, cost, and scope. [58] also recognize the triple constraint as a model that defines project management, emphasizing the frequent conflicts among these constraints and the responsibility of project and investment managers to achieve a balance. Efficient time management is crucial to ensure timely completion [13]. Cost control is critical to stay within budget [16][41]. Scope management is necessary to prevent scope creep [51] [52]. which can lead to project failure. These constraints are interconnected, and the changes in one can impact the others.

Infrastructure project portfolios have additional constraints of quality and risk management. Quality ensures project outputs meet stakeholder requirements [51] [1]. Risk management is crucial in infrastructure projects to mitigate negative impacts [54] [6] [5]. These constraints play a significant role in successful infrastructure project portfolio management, requiring the use of risk management tools and techniques, as well as effective risk leadership and integration into project initiatives [4].

2.3 Project Success Dimension

[37] [29] [30] defines success factors as the characteristics of a project that contribute to its success. [29][30] cited project risk management as a key factor in project success. While most

recent authors have a unified definition of success factors as the factors that contribute to the successful completion of a project, they differ in their perspective and findings. [9][20] argue that project communication is essential for project success. [60] argue that project governance is a key factor in project success. [31] argues that project stakeholder management is another essential factor for project success. [34] in their systematic review of the literature on critical success factors for project management, they found that the most important critical success factors are clear and concise goals and objectives, well-defined scope, effective communication, clear and concise communication, effective risk management, and effective stakeholder management. Furthermore, [60] asserts project success will be likely enhanced if the complexity of the project is low, the duration is shorter, the managerial actions are effective, the client is private and experienced, the client is competent in providing a project brief and making decisions, the project team leaders are competent and experienced, and the project is executed in a stable environment with developed technology and an appropriate organizational structure.

2.4 Human Factors Dimension

[36] asserts that leadership competence is vital for successful sustainable infrastructure project management (SPM) as leaders must demonstrate commitment to sustainability and provide necessary resources and support. [57] citing the theory of reasoned action, argues that project managers are more likely to adopt sustainable practices when they have the intention and belief in their ability to do so. [37] [29] argues that project managers utilizing a transformational leadership style are more likely to achieve success, as they inspire and motivate team members to excel. [36] stresses stakeholder engagement throughout the project lifecycle, in project planning and execution for timely and budget-compliant outcomes. Consultations with nearby businesses and communities should be part of this involvement. The idea of planned behavior is emphasized by [57] to make the claim that project managers are more likely to incorporate sustainable practices in infrastructure projects and that people are more likely to engage in each action if they have support from their peers and stakeholders. [34] emphasize the crucial role of the project team leader in ensuring the success of a project. They stress the significance of having the appropriate abilities and expertise, collaborating well, and gaining leadership support from management. A crucial aspect of strategic alignment is grouping projects and programs together in a portfolio to achieve specific strategic goals. A portfolio is a coordinated collection of projects, programs, and other work that aims to achieve strategic objectives. A portfolio is a carefully selected group of initiatives that support the organizational strategy, not just a random variety of projects. Through the portfolio management process, this alignment is accomplished. Organizations may optimize the value they get from their portfolios by adhering to portfolio management principles and making sure they invest in the proper projects and programs [56].

[46] contend that portfolio management plays a crucial role in enhancing project success in both agile and complex settings. They argue that portfolio management enables organizations to effectively choose and oversee projects in agile and complex environments, thus maximizing the likelihood of achieving desired success outcomes. [56] [46] emphasize the significance of

Project Portfolio Management (PPM) as an effective tool for enhancing decision-making in organizations regarding the dynamics of their project portfolios. The authors strongly back the notion that linking project management to strategy is frequently achieved through program management and project portfolio management. These methods are crucial for aligning projects with organizational strategy and efficiently handling associated risks. Project portfolio management is employed to choose suitable projects for investment, considering factors like alignment with organizational strategy, potential benefits, constraints, and risks [56] [46].

2.5 Project Teams Dimension

A well-composed, structured, and cohesive project team is a critical success factor for navigating the infrastructure investment landscape. In the complex and demanding environment of infrastructure investment, a cohesive and high-performing project team is a key asset [39]. The team's collective expertise, skills, experience and dedication play a pivotal role in overcoming the complex challenges associated with infrastructure projects leading to more efficient and successful project delivery outcomes. Effective teamwork fosters collaboration, communication, and problem-solving, enhancing team dynamics and motivation to meet project objectives [38].

Furthermore, a diverse team brings a range of perspectives and experiences to the table, enhancing decision-making and risk mitigation [62]. A positive team culture characterized by trust, respect, and mutual support is essential for fostering innovation, problem-solving, and overall project success. Moreover, a supportive and inclusive team culture can boost morale, motivation, and overall performance, ultimately contributing to the successful delivery of infrastructure investments [7]. In an industry characterized by tight deadlines, budget constraints, and regulatory complexities, a high-performing project team is essential for achieving project success [63]. Ultimately, the success of an infrastructure investment often hinges on the quality and performance of the project team [62].

2.6 Leadership Capabilities Dimension

In an era of increasing infrastructure demands and limited resources, leadership skills are more critical than ever for ensuring successful project delivery [35]. Effective leaders must possess a deep understanding of the intricate interplay between economic, environmental, and social factors that influence infrastructure investment decisions [65]. They must be adept at-risk management, considering the potential financial, operational, and reputational consequences of infrastructure investments, cost overruns, project delays, and regulatory hurdles [43] [67].

Moreover, leaders must foster collaboration among diverse stakeholders, including government agencies, private sector entities, and communities, to ensure that infrastructure projects align with broader societal goals and priorities [45]. Their ability to build consensus,

manage conflicts make informed decisions in the face of uncertainty is crucial for ensuring the successful implementation of infrastructure projects [42],[35]. By demonstrating strategic thinking, resilience, and effective communication, leaders can guide infrastructure investments toward sustainable and equitable outcomes [66]. Additionally, the capacity to adapt to changing economic and technological conditions is crucial for ensuring the long-term viability of infrastructure investments [3]. Ultimately, strong leadership is the cornerstone for driving sustainable and impactful infrastructure development as they Inspire their teams to achieve ambitious goals [35].

2.7 Stakeholder Engagement Dimension

Stakeholders play a pivotal role in the success of infrastructure investments. Effective engagement with stakeholders, including government officials, local communities, investors, and contractors, is essential for building support, addressing concerns, and mitigating potential risks and conflicts. By proactively, involving stakeholders early in the infrastructure project planning process, organizations can gain valuable insights, identify potential challenges, and secure necessary approvals. This expedites decision-making, and ultimately enhance the project's long-term sustainability [24].

Moreover, strong stakeholder relationships can help to ensure that projects align with community needs, minimize disruptions, and maximize long-term benefits and collaborative innovative solutions. Ultimately, the success of an infrastructure investment often depends on the ability to effectively manage and engage with stakeholders throughout the project lifecycle [61]. As Failure to adequately address stakeholder concerns can result in delays, cost overruns, and even project failure [24]. Ultimately, successful infrastructure projects require a collaborative approach that involves the active participation and support of all relevant stakeholders [24].

2.8 Enterprise Project Portfolio Management (EPPM)

Enterprise project portfolio management (EPPM) is a crucial aspect of organizational agility. [2][28]. It involves effectively managing the selection, prioritization, and execution of infrastructure investment projects to enable adaptability and responsiveness to change [22][50]. By integrating Artificial Intelligence (AI) into EPPM, infrastructure investment and project professionals can enhance efficiency, automate tasks, improve decision-making, and optimize business outcomes [15] [10]. This ensures a robust (IPPM) delivery framework and strategic alignment, with the infrastructure investment decisions and organizational goals.

EPPM contributes to organizational agility in several ways. Firstly, it ensures strategic alignment by aligning projects with overall organizational objectives [8]. This leads to a unified focus and

direction [50]. Secondly, EPPM facilitates risk management by identifying, assessing, and mitigating potential risks associated with projects, minimizing setbacks and disruptions. [49][48]. Additionally, EPPM promotes resource optimization by allocating resources effectively across projects, ensuring that the right resources are available at the right time [48][59]. Finally, EPPM fosters collaboration and communication by creating a shared understanding of project priorities and dependencies, enabling seamless coordination and decision-making. [50]. AI integration and adaption encapsulates these whole mechanisms bringing synergy, alignment and speed into the overall strategy implementation and execution of the infrastructure investment process and lifecycle [50].

EPPM serves as a bridge between organizational strategy and implementation. [12]. It aids in linking execution to strategy through program management and enterprise project portfolio management processes facilitating strategic alignment, enhancing resource utilization, and promoting continuous learning [23]. All within the infrastructure investment ecosystem. By effectively managing enterprise portfolios and leveraging AI integration and adoption skills, enterprise architecture professionals can aid to organizations seamlessly navigate uncertainty, seize opportunities, and adapt to shifting market conditions, leading to sustainable success [2][3].

3 METHOD

The authors reviewed over 300 articles published between 2019 and 2024 to gain an understanding of the depth and breadth of the current state of knowledge in the infrastructure investment ecosystem. It also delved on the critical success factors, and sustainability performance of infrastructure projects. The findings of the review identified a few key critical sustainable infrastructure investment project success factors. The review emphasizes the need for a conceptual framework and a more all-encompassing method of assessing infrastructure investment success.

3.1 Critical Success Dimensions for Infrastructure Investment: A Literature Review

The author commenced collection and review of journal articles in December 2022. In total 300 articles were reviewed, and 134 categorized and finalized into six dimensions with each having subsets of key factors. As shown in Table 2, about twenty-one journal articles related to project management constraints, twenty-five on strategic alignment, twenty-nine on human factors, and twenty on sustainable project success. From the reviews of those articles, the background of the

study, literature reviews and discussion on the critical factors for sustainable project success are forwarded.

Table 2. Number of journal articles for IPMC, SA, HF, SE, LC, PT and SPS

| Description | Number of Articles |
|--|--------------------|
| Infrastructure Project Management Constraints (IPMC) | 21 |
| Strategic Alignment (SA) | 25 |
| Human Factors (HF) | 29 |
| Stakeholder Engagement | 24 |
| Leadership Capabilities | 18 |
| Project Team | 15 |
| Sustainable Project Success (SPS) | 20 |

4 CRITICAL FACTORS FOR INFRASTRUCTURE INVESTMENT PROJECT SUCCESS

The critical success factors (CSFs) are the essential components that must be successfully managed and achieved to guarantee the success of a infrastructure project. They are crucial elements that directly support the project's goals and have a big impact on its overall success. According to [55], sustainability, in the context of construction, is a multifaceted and complex concept that lacks a singular definition, resulting in various interpretations by different stakeholders. The performance of infrastructure projects, in terms of sustainability, is influenced by a multitude of factors. These include the project's scope, budget, schedule, and location, as well as the expertise and experience of the project team [13][41][51][52].

The first factor is on human factor, as supported by [16][19][32][33][11][9] [25][26] demonstrate the critical importance of organizational leadership and project manager sustainability mindset is critical in ensuring the success of sustainable projects. [16] asserts that these elements are indispensable for organizations seeking to effectively implement sustainable project management practices. [20] reveals that project managers who possess a sustainability mindset are more likely to succeed in leading sustainable projects. [32][33] establish the vital role of technical skills in sustainable project management, with workers possessing strong technical acumen being more likely to succeed in leading and managing sustainable projects. [11][9] find that project management knowledge and expertise have a considerable impact on project success, and projects with robust project management leadership are more likely to be successful. [25][26]

affirm that project management knowledge and expertise play a crucial role in digital transformation projects, contributing to their success.

The second factor is strategic alignment that requires effective communication and collaboration by establishing clear communication channels and promoting open and transparent communication among all project participants is a critical success factor that has a relationship between strategic alignment and project success, facilitating problem-solving and decision-making [57][56][46]. The third factor relates to project management constraints. Project planning and scope definition are crucial steps in this process, as are defining the project's scope, objectives, and requirements, creating a detailed project plan with timelines, milestones, and deliverables, as well as identifying potential risks and developing strategies for risk mitigation and quality control and assurance [53][58][13][41][51][52]. In respect to project management restrictions, these actions have a substantial impact on the project's success.

5 CONCLUSION

This study demonstrates the pivotal role of EPPM in fostering organizational agility, particularly when integrated with AI. By aligning projects with strategic objectives, managing risks effectively, optimizing resources, and fostering collaboration, EPPM can enhance organizational adaptability and responsiveness and ultimately organizational success, in supporting and sustaining the investments infrastructure project portfolio management (IPPM). It emphasizes that for infrastructure investment project success, these factors must be well-aligned and managed. The success of an organization relies on the interaction between the various systems and dimensions [27][44]. The social system dimension includes factors such as human behavior, communication, collaboration, and leadership, while the technical system encompasses technology, processes, and tools. By considering the interrelation of these dimension, practitioners can increase the likelihood of achieving sustainable infrastructure investment project success. As a lack of alignment between the systems, generate conflicts, decrease productivity, and ultimately hinder the success of the infrastructure investment project. Similarly, if the human factors and project constraints are not effectively managed, such as stakeholders' risks, budgetary limitations, or time constraints, it can result in delays, cost and schedule overruns, and the inability to achieve project goals. Numerous literatures reviewed identified leader competence requirements stood out most strongly [32][33][11][9], and these would be tested further with other identified critical success factors via a series of diagnostic questions intended to identify interactions interconnections interrelatedness and congruency amongst variables. Henceforth, the critical success factors for sustainable infrastructure investment project success are highly dependent on human factors, strategic alignment, and infrastructure project management constraints. Furthermore, the investment decision, planning, design, building, and operation of infrastructure projects should consider environmental, social, technical, and economic aspects as well as the demands of various stakeholders [27][44]. The findings also conclude that EPPM can contribute to achieving strategic objectives through centralized oversight, knowledge sharing, and navigating the complexities of a rapidly evolving infrastructure investment landscape. However, the successful implementation of AI-integrated EPPM requires careful consideration of factors such as data quality, ethical implications, and

organizational readiness. Future research could delve deeper into the specific applications of AI in EPPM, explore the challenges and opportunities associated with AI adoption, and examine the long-term impacts on organizational performance.

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THE ROLE OF INNOVATIVE CAPABILITIES IN ENHANCING ORGANIZATIONAL RESILIENCE: A REGRESSION MODEL

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ABSTRACT

This study examines the role of innovative capabilities in sustaining organizational survival and competitiveness, especially during COVID-19 pandemic and aftermath. Innovative capabilities, defined as the ability to transform new ideas into improved products or services, are key drivers of economic growth, sustainability, and enhanced performance. The research explores the relationship between innovation and organizational resilience, emphasizing the necessity for organizations to adapt to new norms and technologies to boost productivity and overall performance. Data were collected from 80 respondents working in the private and public sectors in Malaysia. Simple linear regression analysis reveals that innovation significantly predicts organizational resilience ($t=5.707$, $p\text{-value}=0.000<0.05$). The results confirm that innovation and resilience are essential dynamic capabilities for navigating a changing business and organization landscape and maintaining competitiveness in both private and public sector organization.

Keywords: Innovative Capabilities, Organizational Resilience, Post-Covid-19, Public and Private Sectors.

INTRODUCTION

The Covid-19 pandemic has required new approach for organization to remain relevance and competitive by fostering and adapting to rapid changes in business environment. Innovative capabilities have emerged as a crucial factor for ensuring organizational survival, particularly during and in the post pandemic era. In today's chaotic business environment, organization must continuously tackle new challenges to remain competitive and survive. The current economic context, characterized by high inflation, market volatility, uncertainty, rapid technological advancements, and evolving customer needs, makes innovation a crucial strategy for organization in navigating external disruptions and maintain their competitiveness. Innovation capabilities has become an essential and even mandatory factor in fostering companies' ability to adapt to changes in business environments (Heinonen & Strandvik, 2020). For public and private organizations, a crisis such as a pandemic presents a strategic challenge requiring a reassessment and restructuring of business operations (Cortez & Johnston, 2020; Kabadayi et al., 2020).

The pandemic spurred a remarkable focus on innovation, prompting efforts to inspire, initiate, and coordinate new innovations at various levels including global market, national and organizational. Unlike the moderate disruptions caused by digitalization or sustainability challenges, the pandemic brought unprecedented, rapid, and global-scale disruptions affecting all sectors and society levels. This crisis created a unique context for innovation capabilities, beyond what existing research had anticipated (Heinonen & Strandvik, 2020). Understanding dynamic capabilities theory helps organizations not only survive but also sustain themselves during challenging times, requiring adaptation to new norms and technologies amid the widespread impact of the Covid-19 pandemic across all public or private sectors.

Dynamic capabilities theory posits that a company's ability to deploy its resources to adapt to a dynamic environment leads to sustained competitive advantage (Barney, 1991). This theory views a firm's competence to integrate, build, and reshape internal and external capabilities to cope with rapidly shifting environments (Teece, 2007). It provides an effective strategic management methodology to explain the mechanisms by which organizations achieve and sustain competitive advantage. By addressing the static nature of the resource-based view, dynamic capabilities theory has been widely adopted in service contexts (Lütjen et al., 2019). According to this theory, a company's ability to deploy its resources to adapt to the dynamic environment is crucial for sustained competitive advantage (Barney, 1991; Eisenhardt & Martin, 2000). It rectifies the resource-based view's shortcomings by comprehending how entities combine resources and capabilities within a dynamic context. In turbulent environments, dynamic capabilities enable firms to reconfigure ordinary capabilities and adapt to new challenges by deploying novel capabilities (Matarazzo et al., 2021).

The literature found that dynamic capabilities theory is a primary antecedent to business innovation. Studies by (Franco et al., 2021) found that dynamic capabilities play a central role in business model innovation, creating an innovation engine that helps firms incorporate these capabilities into their creation architecture. Dynamic capabilities positively influence innovation capabilities and firm performance (Kareem et al., 2024; Rotjanakorn et al., 2020; Zhou et al., 2019). These capabilities, encompassing sensing, integration, and reconfiguration dimensions, facilitate various types of innovation that enhance organizational performance (Zhou et al., 2019). Innovation capabilities, specifically product and process capabilities, partially mediate the relationship between dynamic capabilities and competitive firm performance (Kareem et al., 2024; Rotjanakorn et al., 2020). The impact of dynamic capabilities on firm performance is particularly significant in volatile environments and disruptive innovation contexts (Grünbaum & Stenger, 2013; Rotjanakorn et al., 2020). These findings improving an understanding concept of how dynamic capabilities enhance firm competitiveness and innovation capabilities across various organizational contexts.

These innovative capabilities refer to an organization's ability to recognize and transform new ideas into improved products or services for the organization's benefit (Mendoza-Silva, 2021). In this context, innovation is crucial as it drives economic growth, competitiveness, sustainability, performance improvement, and competitive edge in the market (Buenechea-Elberdin et al., 2018). Innovation not only enhance the quality of existing product but also enable the introduction of new products to the customer. At the same time, it provides organization with more opportunities for expanding their current businesses. As a critical factors of organization competitiveness, the more innovative the organization is, the more productive it becomes, resulting to better the overall firm performance (Aljuboori et al., 2021). In contrast, low innovation performance will accordingly lead to lower profitability and customer loyalty (Hanifah et al., 2019). Research suggests that innovation capabilities are derived from utilizing internal and external resources which can increase innovative performance and subsequently will increase overall performance (Ferraris et al., 2017).

Research indicates a strong relationship between innovation capabilities and organizational resilience. Innovation mediates the link between organizational capabilities and resilience in small and medium-sized construction firms (Danso et al., 2024). It enables organizations to adapt to crises, reinvent themselves, and sustain performance over time (Pacheco et al., 2023). Successful digital transformation requires both effective innovation management and organizational resilience, with the latter being crucial for adapting or transforming business models through digital innovation (Heinz et al., 2021). A comparative study of innovative and non-innovative companies found that innovative firms maintain higher financial performance, as measured by EBITDA, ROE, and ROA indicators, suggesting greater resilience (De Carvalho et al., 2016). These findings highlight the importance of innovation in building organizational resilience, enabling organization in public and private sector as well as policy makers to navigate environmental disruptions and maintain competitive advantage in turbulent business environments.

Research on innovation in the public sector has been extensive (De Vries et al., 2016), prior to the COVID-19 pandemic. However, the Malaysian government now faces new strategic challenges due to rapid technological changes, innovation, and globalization. In Malaysia, public service agencies recognize that innovation capabilities are crucial for organizational performance and resilience. They need to innovate to meet public demands, provide efficient and effective services, and enhance their reputation. (Ibrahim & bin Ahmad Tajuddin, 2020) . Given the increased emphasis by organization and policymakers on innovation capabilities to address the challenges of the COVID-19 aftermath, understanding the roles of innovation in enhancing organizational performance is crucial. It is also important to examine contributions in both the public and private sectors, assessing their innovation capabilities. (Häggmark & Elofsson, 2022). However, (Popp, 2019) argues that both sectors have been underexplored in this context, despite the value of such information for aligning policy priorities with R&D activities (Aurora Garrido-Moreno, 2024). Additional studies are needed to analyse the role of key organizational capabilities such as innovation play in fostering organizational resilience (Melián-Alzola et al., 2020). Research on this topic should be conducted to better understand how organization can become more resilient and innovative (Xie et al., 2022) and explore its positive implications for performance in unstable environments (Do et al., 2022). Evaluating innovation capabilities is essential for understanding its impact on organizational resilience (Häggmark & Elofsson, 2022).

This paper highlights the crucial role of innovation capabilities and organizational resilience in the context of surviving Covid-19 pandemic crisis and aftermath. By examining the impact of innovation capabilities on organizational resilience in both public and private sectors, it addresses a significant gap in existing research. This study follows a measurement by (Aurora Garrido-Moreno, 2024) to assess the relationship between innovation capabilities and organizational resilience. Understanding dynamic capabilities theory is crucial for grasping how innovation enables organizations to adapt and maintain productivity during challenging times (Matarazzo et al., 2021). This knowledge is essential for developing strategies to enhance resilience and competitiveness in a rapidly changing business environment. The drivers of innovation in this context may differ from those related to process innovation, firm-specific innovations, or business model innovations, which are not covered in this study.

METHODS

Research Design

A set of questionnaires was randomly distributed to employees across various organizations in Malaysia using Google Forms. The questionnaire aimed to collect comprehensive data on employee perceptions of organizational resilience and innovation, particularly in response to the Covid-19 pandemic. This demographic data is summarized in Table 1

Table 1. Respondents' profiles

| Respondents' Profiles: N = 80 | Frequencies (persons) | Percentage (%) |
|----------------------------------|--------------------------|----------------|
| Gender | | |
| Male | 24 | 30 |
| Female | 56 | 70 |
| Age | | |
| <25 | 1 | 1.3 |
| >55 | 29 | 36.3 |
| 25-34 | 11 | 13.8 |
| 34-45 | 32 | 50 |
| 45-55 | 7 | 8.8 |
| Level of Education | | |
| SPM / Certificate | 4 | 5 |
| Diploma | 9 | 11.3 |
| Degree | 31 | 38.7 |
| Master | 31 | 38.7 |
| PhD | 5 | 6.3 |
| Length of services: | | |
| <5 years | 8 | 10 |
| >10 years | 59 | 73.8 |
| 5-10 years | 13 | 16.3 |
| Organizations | | |
| Cooperatives | 4 | 5 |
| Private Sector – GLC / MSC | 14 | 17.5 |
| Private Sector – SMEs | 15 | 18.8 |
| Government Services | 47 | 58.8 |

Table 1 provide a detailed profile of the respondents and ensuring a diverse and representative sample for the analysis. This random distribution method ensured a broad and unbiased collection of responses, facilitating a robust examination of the research questions. The questionnaires were administered to 80 employees who provided responses used for further analysis. Demographic information was collected, including respondent's age, level of education, length of service, and type of organization. This data helped contextualize the findings and ensure a comprehensive understanding of the respondents' backgrounds. The survey aimed to measure organizational innovation and resilience, particularly in response to the Covid-19 pandemic. The gathered responses were then analyzed to identify trends and insights related to these constructs.

Measurement and Procedures

Drawing on scales by (Aurora Garrido-Moreno, 2024; Calantone et al., 2002; Fraj et al., 2015; Palacios-Marqués et al., 2015) a six-item scale to measure innovation capabilities was created. The questionnaire measures the level of innovation within an organization, focusing on its ability

to develop and implement new products, services, and processes. It evaluates the organization's creativity, market responsiveness, and commitment to continuous improvement in meeting client or customer needs. Organizational Resilience were developed on the scales proposed by (Aurora Garrido-Moreno, 2024; Campbell- Sills & Stein, 2007; Connor & Davidson, 2003), a ten-item scale was developed by adapting the items of these scales to this study. The questionnaire measures organizational resilience, specifically how well an organization can adapt, respond, and recover from the challenges posed by the Covid-19 pandemic. It assesses the organization's ability to maintain focus, achieve goals, and manage stress and setbacks effectively during and after a crisis.

The data collected were subjected to ANOVA test and regression coefficients analysis to examine the relationships between the variables. The assumptions of normality, linearity, independence, and homoscedasticity of residuals were tested using diagnostic plots as illustrated in Figure 1.

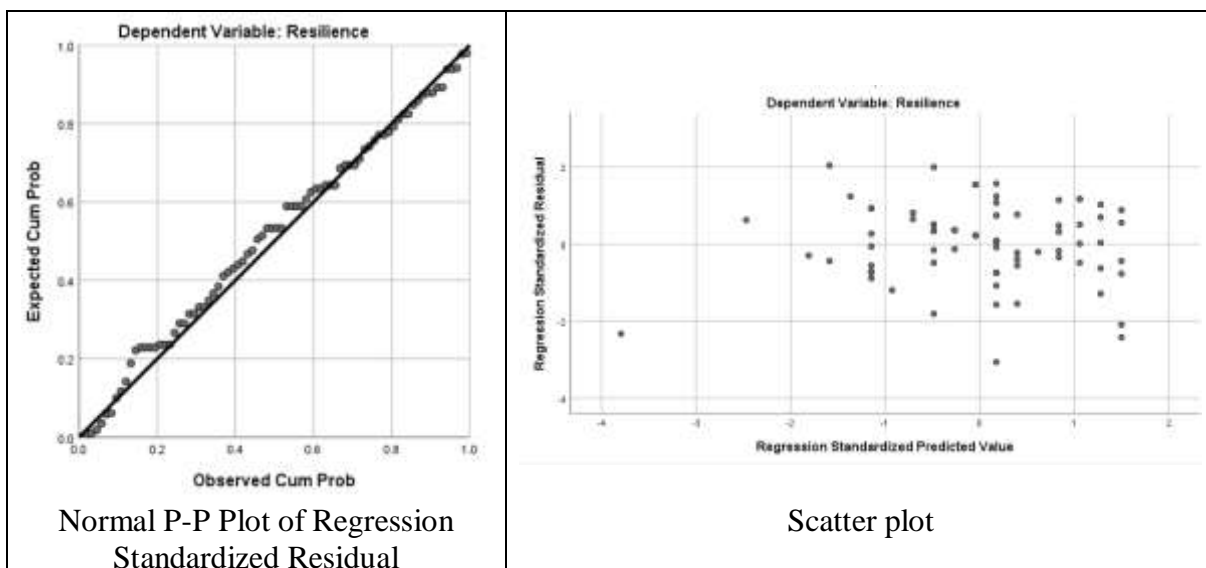


Figure 1: Diagnostic plots

The normal P-P plot of the regression standardized residuals indicated that the residuals are normally distributed. The points closely follow the diagonal line, suggesting that the assumption of normality is satisfied. The scatter plot of the regression standardized residuals against the standardized predicted values showed a random pattern, indicating that the residuals have constant variance (homoscedasticity) and are independent of each other. Additionally, there were no apparent outliers, satisfying the assumption of zero mean of residuals. These results validate the regression model's assumptions, confirming that the model is appropriate for analyzing the data and drawing reliable conclusions about the organizational resilience in the context of the Covid-19 pandemic.

RESULT AND DISCUSSION

The simple linear regression analysis examined the relationship between innovation and resilience (Table 2). The model summary indicates a correlation coefficient (R) of 0.543, suggesting a moderate positive relationship between the two variables. The R Square value of 0.295 indicates that innovation explains about only 29.5% of the variation in resilience among the respondents. This means that while innovation is a significant predictor of resilience, 70.5% of the variation is due to other factors not included in this model. These factors could include firm size, firm age, and elements of intellectual capital such as human capital, structural capital, and relational capital. Future research should explore these additional predictors to gain a more comprehensive understanding of the determinants of organizational resilience. The ANOVA table indicates that the regression model is statistically significant ($F=32.572$, $p\text{-value}=0.000 < 0.05$). This suggests that the model is fit to explain the variance in resilience based on innovation.

Table 2: ANOVA Table

| | Sum of Squares | Degree of Freedom | Mean Square | F test | p-value |
|------------|----------------|-------------------|-------------|--------|---------|
| Regression | 1194.269 | 1 | 1194.269 | 32.572 | 0.000 |
| Residual | 2859.918 | 78 | 36.666 | | |
| Total | 4054.188 | 79 | | | |

$$R = 0.543, R^2 = 0.295$$

The coefficients table in Table 3 provides in the specific values of the regression equation as in equation 3, demonstrating that innovation is a significant predictor of resilience. These results show that the constant value is 18.922, indicating the baseline level of organization resilience when innovation is zero. The coefficient for innovation is 0.857, meaning that for each unit increase in innovation, organization resilience increases by 0.857 units. The t-value of 5.707 and the corresponding p-value of $0.000 < 0.05$ indicates that innovation is a significant factor to the organizational resilience. The regression equation derived from the model is:

$$y = a + bx \quad (1)$$

$$y = 18.922 + 0.857x \quad (2)$$

$$\text{Organizational resilience} = 18.922 + 0.857 \text{ innovation} \quad (3)$$

Table 3: Regression Coefficients

| Model | Unstandardized Coefficients | | Standardized Coefficients | T test | p-value |
|------------|-----------------------------|------------|---------------------------|--------|---------|
| | B | Std. Error | Beta | | |
| Constant | 18.922 | 3.550 | | 5.330 | 0.000 |
| Innovation | 0.857 | 0.150 | 0.543 | 5.707 | 0.000 |

The findings demonstrate that innovation is a significant and positive predictor of organizational resilience. The result is consistent with prior research (Aljuboory et al., 2021; Aurora Garrido-Moreno, 2024; Heinonen & Strandvik, 2020b; Kamal et al., 2023). The model explains 29.5% of the variance in resilience, suggesting that while innovation plays a crucial role, other factors also contribute to organizational resilience. These results highlight the importance of fostering innovation within organizations to enhance their resilience, particularly in the face of challenges such as the Covid-19 pandemic.

These results imply that organizations resistant to change and unwilling to innovate are at a significant disadvantage in the current and future business environment (Choi et al., 2020; Sung & Kim, 2021). In a rapidly evolving marketplace, the ability to innovate is crucial for maintaining resilience and long-term sustainability. Organizations that fail to embrace innovation may struggle to cope with disruptions, leading to reduced performance and potential failure (O'Reilly III & Tushman, 2021; Reich, 2020). As a result, low innovation performance will accordingly lead to lower profitability and customer loyalty (Hanifah et al., 2019). Therefore, it is imperative for organization to foster a culture of continuous improvement and innovation to remain competitive and resilient. This entails investing in new technologies, encouraging creative problem-solving, and being open to new business models and strategies that align with the changing dynamics of the market.

CONCLUSION

The study aimed to investigate the relationship between innovation capabilities and organizational resilience within the context of the Covid-19 pandemic. Utilizing the dynamic capability theory as a framework, the research focused on a sample of employees from both the private and public sectors in Malaysia. The analysis, conducted using simple linear regression, revealed a significant positive relationship between innovation capabilities and organizational resilience, suggesting that organizations with higher innovation capabilities are better equipped to withstand and recover from crises.

The regression model demonstrated that innovation capabilities explain 29.5% of the variation in organizational resilience, underscoring the importance of innovation in enhancing an organization's ability to adapt and thrive in the face of disruptions. The ANOVA results confirmed the statistical significance of the model, and the coefficients indicated a substantial impact of innovation on organizational resilience. This finding aligns with the dynamic capability theory, which posits that an organization's ability to integrate, build, and reconfigure internal and external competencies is crucial for sustaining competitive advantage in turbulent environments.

These results highlight the critical need for organizations to foster innovation as a core capability to ensure long-term resilience and sustainability. In the context of the ongoing and future business challenges posed by the Covid-19 pandemic and other disruptions, organizations must embrace change and invest in innovative practices. By doing so, they can better manage crises, maintain operational continuity, and achieve sustained growth. This study emphasizes the imperative for organization and policy makers to prioritize innovation and dynamic capabilities to build resilient organizations capable of navigating an uncertain and rapidly evolving new landscape.

The study's limitations include its sample size, which may not adequately represent the diversity of the workforce in Malaysia's private and public sectors. Future research should explore a broader and more diverse sample to validate these findings and consider the role of various types of innovations and support mechanisms in enhancing organisational resilience. Additionally, exploring additional predictors such as firm size, firm age, and elements of intellectual capital (human, structural, and relational capital) etc could provide a more comprehensive understanding of organizational resilience. Overall, this study highlights the critical role that budget allocation and a robust support system play in fostering innovation capabilities within organisations. By strategically investing in innovative practices, organisations can enhance their resilience and ability to navigate crises.

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106-119

CORPORATE LIABILITY AGAINST CORRUPTION FOR COMMERCIAL ORGANISATIONS IN MALAYSIA

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ABSTRACT

The Malaysian Anti-Corruption Act 2009 (MACCA) criminalises acts of bribery and corruption in Malaysia. Section 17A which came into force in June 2020 has been incorporated whereby it extends liability for corrupt acts to corporate bodies and all persons associated with that company. Section 17A is a crucial provision that focuses on corporate liability for commercial organisations. It is aimed at making companies and their top management accountable for corrupt activities conducted by their employees or associates, regardless of whether the management is aware of it or not. Commercial organisations are encouraged to adopt good corporate governance, including establishing an anti-corruption compliance framework and conducting internal audits to minimise the risk of corrupt activities within their organisations. In the event of a corrupt act under S17A, the burden of proof is on the accused party. Corporate corruption is a strict liability offence with only two defences. Firstly, the accused party has to show that he/she had in place adequate procedures to prevent such conduct and secondly, the accused needs to show on the balance of probabilities that all due diligence to prevent corruption had been carried out. The section applies to all Malaysian companies including local, foreign and state-owned enterprises. The possible penalties are heavy and ignorance is not an excuse. The paper will delve into the intricacies of this new amendment and explore how its enforcement affects employers across the industries. It will shed light on the critical steps businesses must take to ensure compliance and uphold ethical standards within their organisations. Businesses that engage in corrupt practices suffer significant reputational damage due to negative publicity and public perception. This can lead to a loss of trust from customers, investors and other stakeholders.

Keywords: Corporate Liability, Bribery, Corruption, Compliance Framework, Corporate Governance.

009-120

ENVIRONMENTAL MANAGEMENT ACCOUNTING AND ORGANIZATIONAL PERFORMANCE: A STUDY ON MANUFACTURING INDUSTRY IN MALAYSIA

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ABSTRACT

Environmental issues in manufacturing industry has been widely discussed due to the high impact of manufacturing activity on environment. Therefore, the pressure on manufacturing companies to be more responsible in saving the environment is increasing. Environmental management system (EMS) can be utilized as an effort to improve environmental management. Whereas environmental management accounting (EMA) is a new EMS tool to trace and recognize environmental cost and the movement of physical environment. The implementation of EMS in manufacturing industry in Malaysia still in moderate stage as it is believed to increase the organization expenses. Indirectly, the implementation of EMA also at the same level. Therefore, based on the organizational change theory that focus on goal setting and evaluation model, this study suggests internal factors such as top management, training and strategy and also external factors such as government, community and market, that could influence the implementation of EMA in an organization, and subsequently increase the environmental performance. Therefore, the main focus in this study is to determine the relationships between internal and external factors, EMA and environmental performance. This study employs survey method using questionnaire which were distributed to manufacturing companies listed in Bursa Malaysia 2024. Structured Equation Model (SEM) using Smart PLS software has been used in analyzing the data. Findings indicate that internal and external factors are significantly related to EMA; EMA also has significant relationship with environmental performance. Theoretically this study contributes to the line of literatures in EMA by providing empirical evidence to support organisational change theory, evolutionary and goal-setting models that organisational change driven by the internal and external environment to enhance efficiency and effectiveness, which explains the correlation between internal and external factors that drive the implementation of the EMA, and consequently improving the environmental performance in the manufacturing industry. Practically, the findings provides guidelines to managers in implementing EMA, and policy makers in regulating the manufacturing activities through EMA practices. Methodological contribution includes the refining of variable measurements used in this study. Implications of the research shows the implementation of the EMA was able to improve environmental performance of the organization.

111-122

ARE CO-MOVEMENT BETWEEN BITCOIN AND EQUITY INDEXES AFFECTED BY COVID-19? EVIDENCE FROM ASEAN-5 MARKETS

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ABSTRACT

The COVID-19 pandemic began in March 2020 have been greatly impacted worldwide. Financial markets cannot escape from this pandemic which caused the changes in investors' investment decisions as well as the optimal investment portfolio formation. Although the impact of COVID-19 on the association between cryptocurrencies and conventional financial assets has been widely investigated. Unfortunately, there is very limited studies have carried out to examine the changes in the co-movement between cryptocurrency and financial assets by comparing three different periods, which are before COVID-19, during COVID-19, and after COVID-19. Therefore, this study aimed to study the effect of COVID-19 on the co-movement between Bitcoin and equity indexes in ASEAN-5 markets by using the MGARCH-DCC and independent t-tests. Based on the sample periods spanning from early January 2018 until the end of June 2024, the results of independent t-tests revealed that the co-movement between Bitcoin and all ASEAN-5 equity indexes strengthened during COVID-19 compared to before COVID-19. However, the co-movement became weaker after COVID-19 compared to during COVID-19 in Malaysia, Singapore and Thailand. Interestingly, when comparing before COVID-19 and after COVID-19, mixed results were revealed as the co-movement became stronger only in Indonesia and the Philippines, while became weak in Malaysia and Thailand. These findings offer some important implications both theoretically and practically as they would enrich the literature and also utilize formatting strategies in establishing an optimal investment portfolio.

Keywords: Co-Movement, COVID-19, Cryptocurrency, Equity Indexes, ASEAN-5.

028-125

THE IMPACT OF GEOPOLITICAL RISK AND MACROECONOMIC ON KLCI

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ABSTRACT

The objective of this study is to investigate the impact of geopolitical risk and macroeconomic factors in shaping Malaysia's stock market performance. This study aims to quantify the impact of external shocks and economic conditions on stock return. By employing time series and regression, the study analyzes a comprehensive dataset of stock market indices, geopolitical risk indicators, and macroeconomic variables. Empirical results demonstrate that both geopolitical risk and macroeconomic factors significantly impact the Malaysia stock market. The finding highlights the importance of considering both geopolitical and economic factors when assessing stock market performance and risk. Additionally, this study contributes to a deeper understanding of how these factors influence financial markets, providing valuable insights for policymakers, investors and academics.

Keywords: Geopolitical Risk, Macroeconomic, Stock Market Return, Regression.

ENVIRONMENTAL SUSTAINABILITY IN SABAH: THE ROLES OF SABAH PARKS

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ABSTRACT

Environmental sustainability involves making sound and responsible decisions for profitability and at the same time protecting the natural environment surrounding the entity. As a conservation-based statutory body in the state of Sabah, Malaysia that manages multiple state parks in North Borneo, Sabah Parks has been identified as the unit of analysis since the environmental management literature is scant within state parks. Since Sabah Parks are the backbone of the tourism industry in Sabah, Malaysia, the parks would most likely generate some kind of environmental footprint. In an attempt to conceptualise the management of environmental sustainability within Sabah Parks and its roles, a comprehensive qualitative analysis was applied. All nine parks and three additional officers from the main office were interviewed and observed through field trips that lasted for two years. The analysis is thematic with an open-ended survey and the software used is NVIVO 14. The findings yielded four themes based on a six-phase analytical process of qualitative research. It is concluded that Sabah Parks play an important role in community empowerment, park enforcement, stakeholder engagement, and international recognition. Community empowerment has the most empirical evidence collected, highlighting the crucial role of the local community residing alongside these biological resources in supporting environmental sustainability goals. Future research should explore Sabah Parks' impact on community-based tourism fostering a healthy relationship between people and the environment and ensuring the preservation of natural resources for future generations.

Keywords: Environmental, Sustainability, Sustainable Development Goals, Community.

115-129

SYSTEMATIC LITERATURE REVIEW OF INFLUENCING FACTORS ON CHINA'S TRADE FLOW: BASED ON VARIABLES FROM GRAVITY MODEL

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ABSTRACT

As a major trading country, China has long been the focus of research regarding the determinants of its trade flows. However, no scholars have comprehensively reviewed the factors influencing China's trade flows. Therefore, this study attempts to identify the factors influencing China's trade flows through a systematic literature review using the gravity model. To this end, the study selected 67 target articles from the Scopus database and analyzed the regression results of each gravity model in these articles. A systematic analysis was conducted based on the frequency of occurrence, direction of impact, and magnitude of impact of the independent variables. This approach helps to determine which factors influence China's trade flows and to what extent. The results show that China's trade flows are usually influenced by factors such as GDP (Gross Domestic Product), Distance, Common Border, Common Language, Population, Exchange Rates, and FTAs (Free Trade Agreements). Among these, GDP, Common Language and FTAs have significantly contributed to promoting China's trade flows. On the other hand, factors such as Distance and Tariffs have been proven to be major obstacles to China's trade flows.

Keywords: China's Trade Flows, Influencing Factors, Systematic Literature Review, Gravity Model.

ANALYSING THE IMPACT OF EXPERIENCE, EDUCATION, AND SKILLS ON WOMEN'S LABOUR FORCE PARTICIPATION

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ABSTRACT

Malaysia has experienced significant economic growth in recent decades, characterised by notable increases in gross domestic product (GDP) and a strong expansion trajectory. This is evident in the 7.1% growth rate observed in late 2022 and the 5.6% growth rate in early 2023. The increase in economic expansion has heightened the need for labour, thereby emphasising a long-standing problem: substantial gender inequality in workforce engagement. Despite the implementation of multiple policies targeting the promotion of female involvement, such as tax exemptions and longer maternity leave, the rate of female participation in the labour force continues to be significantly lower compared to that of males. The objective of this study is to tackle this problem by combining human capital theory, which encompasses education, skills, and work experience, with Maslow's hierarchy of needs, which includes physiological needs, safety, social belonging, esteem, and self-actualisation. Maslow's theory will be utilised as a mediator to examine the impact of these factors on women's choices to enter and sustain employment. The aim is to offer a thorough comprehension of the obstacles hindering female participation and to provide suggestions for enhancing policies. The research aims to close the divide between policy objectives and results, thus bolstering Malaysia's wider economic aspirations.

Keywords: Female Labour Force, Human Capital Theory, Maslow's Hierarchy of Needs, Economic Growth, Malaysia.

1. Introduction

Malaysia's economic trajectory over the past few decades has been marked by substantial growth, positioning the nation as a key player in Southeast Asia's dynamic economic landscape. Since the 1990s, Malaysia has maintained a steady rise in its gross domestic product (GDP), reflecting of robust domestic demand and economic resilience. In the fourth quarter of 2022,

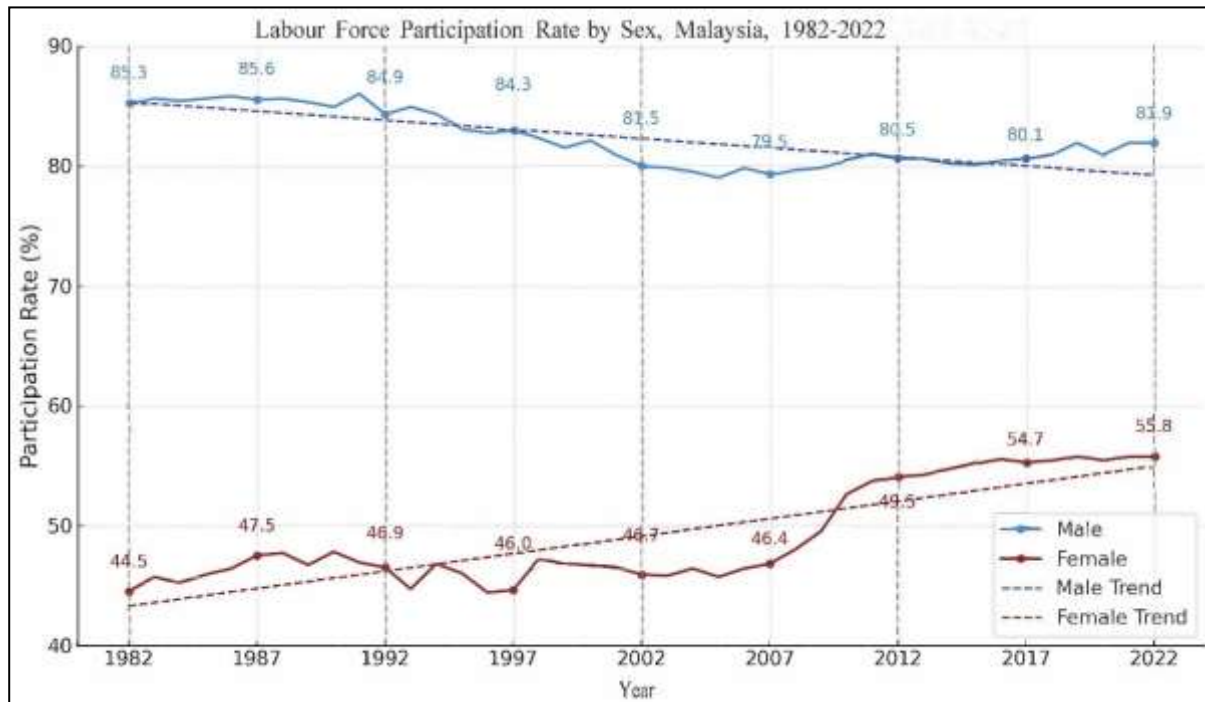
Malaysia's economy expanded by 7.1%, a notable achievement in the face of global uncertainties (Department of Statistics Malaysia [DOSM], 2023). This positive trend extended into the first quarter of 2023, with a growth rate of 5.6%, outpacing major regional economies such as China (4.5%) and Indonesia (5.0%) (Ministry of Finance Malaysia [MOF], 2023). Such sustained economic growth underscores the increasing demand for labour—a critical component for maintaining the momentum of an expanding economy. The relationship between economic growth and labour demand is well-established, with a broad spectrum of literature supporting the notion that an expanding economy necessitates a proportional increase in labour supply to meet the rising demands for goods and services (Akhtar et al., 2020; Nor & Said, 2014).

Labour, along with capital and land, is traditionally recognised as one of the fundamental drivers of economic growth, a view deeply rooted in neoclassical economic theory. The labour force participation rate (LFPR) is a critical indicator of economic health, as it reflects the proportion of the working-age population actively engaged in the labour market (Pietak, 2014). However, in Malaysia, a significant gender disparity persists in labour force participation, raising concerns about the inclusivity and sustainability of the nation's economic progress. Despite the country's economic advancements, female participation in the workforce has consistently lagged behind that of males.

Figure 1 illustrates the labour force participation rate (LFPR) by sex in Malaysia from 1982 to 2022, highlighting a persistent gender disparity over four decades. Male LFPR has consistently remained above 80%, demonstrating stable and high male workforce participation throughout the period. Conversely, female LFPR has exhibited a significantly lower and more fluctuating trend, between 44% and 55%. Despite gradual improvements in female participation, the gender gap has remained substantial, with male participation reaching 81.9% and female participation only 55.8% by 2022. This long-standing disparity underscores the systemic underrepresentation of women in the formal labour market and reflects the socio-economic barriers limiting women's engagement in formal employment.

These barriers are further evidenced by the April 2023 labour force statistics, which show that 43.6% of the 7.23 million individuals outside the labour force were women involved in unpaid domestic work (DOSM, 2023). This underrepresentation of women in the workforce significantly challenges Malaysia's aspirations of becoming a high-income economy. Research indicates that enhancing female labour participation, reducing gender disparities, and improving access to higher-productivity sectors are critical to sustaining Malaysia's economic growth (Halim et al., 2016; Mansor & Syed Salleh, 2022). Figure 1 visually emphasises the need for targeted policies that promote gender equity and inclusivity in the workforce to support the nation's broader economic goals.

Figure 1: Labour Force Participation Rate by Sex, Malaysia, 1982 – 2022



The trajectory of female labour force participation in Malaysia reveals a distinct pattern compared to other Asian economies. In countries like Japan and South Korea, female participation often follows a “double peak” trend, characterised by workforce exit during marriage and childbirth and re-entry later in life. In contrast, Malaysia exhibits a “single peak” pattern, where women’s participation rates peak between the ages of 25 and 29, subsequently declining as many women exit the labour market due to marriage and childbirth (Lim & Mohd Rasdi, 2019). This trend highlights persistent structural challenges that hinder the full integration of women into the Malaysian workforce despite significant policy efforts to improve gender equity.

Recognising the economic imperative of higher female labour participation, the Malaysian government has implemented several initiatives to increase women’s involvement in the workforce. The National Policy on Women, introduced in 1989, laid the foundation for gender equality efforts, which have since expanded to include modern policies such as tax exemptions for women returning to work, extended maternity leave to 98 days starting in 2023, and the provision of seven-day paternity leave (MOHR, 2021; Nadworny, 2022). Additionally, amendments to the Employment Act 1955 now allow for flexible work arrangements, and the Anti-Sexual Harassment Act 2022 enhances workplace safety and inclusivity (Mohd Noor et al., 2022; Samantha, 2023). These policies underscore Malaysia’s commitment to creating an enabling environment for women’s economic participation.

However, despite these concerted efforts, female labour force participation in Malaysia has shown limited growth, with less than a 5% increase over the past decade (DOSM, 2023). This stagnation points to a persistent gap between policy intentions and real-world outcomes. Deep-rooted gender inequality and societal norms continue to constrain women's workforce participation despite higher educational attainment among women (World Bank, 2022). The underutilisation of female talent not only hampers economic growth (Ghosh, 2022) but also raises questions about the effectiveness of Malaysia's educational investments and corporate diversity initiatives (Adams & Ferreira, 2009; Kim & Starks, 2016).

In light of these challenges, the Twelfth Malaysia Plan and the Ekonomi Madani framework emphasise the critical role of increasing female labour force participation as a driver of sustained economic growth. These strategic frameworks reflect the government's commitment to aligning policy objectives with outcomes, ensuring women's contributions are fully integrated into the national economy. However, given the persistent gender gap and the inconclusive findings from previous research on women's labour market entry, a more comprehensive investigation is essential. A nuanced understanding of the barriers and enablers to female labour participation will be vital in formulating effective policies that address the existing gaps and unlock the full potential of Malaysia's labour force.

Despite the various policy initiatives to improve female labour force participation in Malaysia, significant challenges remain. This study seeks to address these challenges by adopting a comprehensive framework that integrates human capital theory with Maslow's hierarchy of needs, thereby offering a deeper understanding of the factors that influence women's participation in the workforce. Specifically, this research examines the role of education, skills, and experience in shaping female labour force participation and explores the psychological motivations underpinning these decisions.

The main objectives of this study are threefold: (1) to investigate the relationship between crucial human capital variables—education, skills, and experience—and female labour force participation in Malaysia; (2) to analyse the mediating role of psychological factors, as outlined by Maslow's hierarchy of needs, in influencing labour market behaviour; and (3) to provide policy recommendations that are grounded in both economic and psychological insights, aimed at fostering greater female participation in the workforce. By bridging the gap between economic theory and psychological frameworks, this study contributes to the growing literature on gender and labour economics, offering practical insights for policymakers and business leaders seeking to promote gender equity and enhance economic productivity.

2. Theoretical Foundations: Human Capital Theory and Maslow's Hierarchy of Needs

The study of female labour force participation has predominantly been examined through the lens of human capital theory, which posits that investments in education, skills, and experience

increase an individual's productivity and earning potential (Becker, 1962). Numerous studies have applied this theory to understand women's labour market behaviour, particularly in developing countries like Malaysia (Besamusca et al., 2015; Lama & Kuri, 2017; Runde et al., 2017). According to human capital theory, higher levels of education and skill acquisition are expected to naturally result in greater female participation in the workforce. However, these studies often fall short of explaining the complex, multi-faceted reasons behind women's labour force decisions.

Maslow's hierarchy of needs, a psychological framework, provides a complementary perspective by exploring the motivations that drive human behaviour, ranging from basic physiological needs to self-actualisation (Maslow, 1943). This hierarchy highlights the significance of non-economic factors such as belonging, esteem, and self-fulfilment, which may influence women's decisions to participate in the workforce. While human capital theory emphasises economic incentives, Maslow's framework underscores the importance of psychological and social drivers. Some researchers have begun to integrate these two frameworks to better capture the motivations of women entering the labour market, recognising that economic factors alone are insufficient to explain labour force participation, particularly in culturally and socially complex environments like Malaysia (Imhanrenialena et al., 2022).

2.1 Empirical Evidence: Education, Skills, Experience, and Labour Force Participation

Education has long been recognised as a key determinant of female participation in the labour force. Studies consistently demonstrate that higher levels of education correlate with increased labour supply among women (Besamusca et al., 2015; Lama & Kuri, 2017). These findings align with human capital theory's predictions. However, research on educational attainment and labour force participation in different cultural contexts has produced mixed results. For instance, Kumagai and Kato (2007) found that education did not significantly influence married women's participation in the workforce in Japan, suggesting that cultural and societal norms may override the economic benefits of education in specific contexts. This finding raises important questions about the universality of human capital theory's application to female labour force participation.

Skills and experience also play a critical role in determining women's employment outcomes. Women with greater work experience and specialised skills are more likely to engage in the labour market and secure higher-paying positions (Runde et al., 2017). However, access to skill-building opportunities remains uneven, particularly in developing economies, where gendered barriers to education and training are prevalent. In Malaysia, traditional gender roles and societal expectations continue to limit women's opportunities for skill development and career advancement (Shaari & Amirul, 2023).

Despite the extensive research on education and skills as drivers of female labour force participation, health remains an underexplored aspect of human capital. Women's health is a critical determinant of their ability to participate in the labour market, yet access to healthcare is often limited in developing countries. Lack of attention on health in the existing literature

highlights a critical gap that needs to be addressed, particularly in contexts like Malaysia, where health disparities may significantly impact women's workforce participation (Besamusca et al., 2015).

2.2 Beyond Human Capital: Psychological Motivations and the Role of Maslow's Hierarchy of Needs

While human capital theory provides a robust framework for understanding the economic factors influencing female labour force participation, it does not fully capture this phenomenon's psychological and social dimensions. Maslow's hierarchy of needs addresses this gap by emphasising the importance of psychological motivations such as self-esteem, belongingness, and self-actualisation in driving labour market behaviour. For many women, particularly in developing economies, the decision to enter or remain in the workforce is influenced by economic necessity and the desire for respect, recognition, and a sense of purpose (Maslow, 1943; Imhanrenialena et al., 2022).

In Malaysia, the intersection of cultural norms and psychological needs presents unique challenges for women seeking to participate in the labour market. For example, despite implementing policies such as tax exemptions and flexible work arrangements, these initiatives often fail to address women's psychological needs, such as the desire for respect and recognition in the workplace (Mohd Noor et al., 2022). As a result, these policies may have limited effectiveness in promoting sustained female labour force participation. This underscores the need for a more holistic approach to policy design that considers economic and psychological factors.

2.3 The Business Case for Female Labour Force Participation

From a business perspective, including women in the workforce is a matter of equity and a strategic imperative. Female employees bring unique skills, perspectives, and consumer insights that can enhance business performance, particularly in sectors such as sales and marketing (Adams & Ferreira, 2009; Kim & Starks, 2016). Women's sensitivity to specific market needs, particularly those of female consumers, can give companies a competitive advantage. Moreover, retaining female workers reduces turnover and the associated costs of recruitment and training, while their meticulous attention to detail and long-term strategic thinking contribute to overall business success.

Despite these benefits, many corporate policies remain focused on macroeconomic outcomes, such as increasing the overall female labour force participation rate, without adequately addressing the microeconomic needs of women, particularly their psychological motivations. This oversight limits such policies' effectiveness, as economic and non-economic factors influence women's decisions to enter and remain in the workforce.

2.4 Gaps in the Literature and the Contributions of This Study

Despite the extensive research on female labour force participation, several gaps remain unaddressed. Existing studies have primarily focused on human capital variables—education, skills, and experience—without fully considering the psychological motivations influencing women's labour market behaviour. Moreover, while policies aimed at increasing female labour participation have been implemented, their effectiveness has been limited, as evidenced by the stagnant growth in female labour force participation in Malaysia over the past decade (DOSM, 2023). This suggests that a more comprehensive approach incorporating economic and psychological factors is needed to understand better and address the barriers to female labour force participation.

This study seeks to fill these gaps by adopting a dual-theory framework that integrates human capital theory with Maslow's hierarchy of needs. By examining the effects of education, skills, and experience on female labour force participation, this research provides valuable insights. Additionally, it explores the role of psychological motivations, offering a more comprehensive and holistic analysis of the multifaceted factors influencing women's decisions in the labour market. The findings of this study will provide valuable insights for policymakers and business leaders, helping to formulate more effective policies and practices that support women's full participation in the labour market.

3. Conceptual Framework

The conceptual framework illustrated in Figure 2 integrates Human Capital Theory with Maslow's Hierarchy of Needs Theory to explain the dynamics of female labour force participation. This dual-theory framework offers a comprehensive approach by considering economic factors (education, skills, and experience) and psychological needs (physiological, safety, social, esteem, and self-actualisation) influencing women's decisions to enter and remain in the labour market.

3.1 Human Capital and Female Labour Force Participation

The foundation of this framework is grounded in Human Capital Theory, which posits that investments in education, skills, and experience increase an individual's productivity and, consequently, their likelihood of joining the labour force. This theory has been widely applied in the study of female labour force participation, with researchers finding that higher-educated women are more likely to participate in the workforce (Abramo & Valenzuela, 2005; Besamusca et al., 2015; England et al., 2012; Gan, 2008; Tzannatos, 1999). Similarly, acquiring relevant skills has positively impacted female labour force participation (Guner et al., 2020; Kumagai & Kato, 2007; Sardar Naeem, 2022). Additionally, work experience plays a crucial role in job engagement, with employees who have more experience demonstrating higher levels of

commitment to their roles (Çemberci et al., 2022; Schieckoff & Diehl, 2021; Teichert et al., 2023; Xepoleas et al., 2020; Yildirim, 2008).

The framework hypothesises three direct effects:

- H1: Education has a direct positive effect on female work motivation.
- H2: Skills have a direct positive effect on female work motivation.
- H3: Experience has a direct positive effect on female work motivation.

These hypotheses highlight the pivotal role of human capital variables in shaping female labour market outcomes.

3.2 Maslow's Hierarchy of Needs Theory and Female Work Motivation

The framework further integrates Maslow's Hierarchy of Needs Theory to capture the psychological motivations influencing female work behaviour. Maslow's theory posits that human motivation progresses through a hierarchy of needs, from basic physiological needs to self-actualisation (Maslow, 1943). The conceptual framework proposes that female work motivation, as influenced by education, skills, and experience, can be mapped onto the different levels of Maslow's hierarchy.

The most basic level of Maslow's hierarchy, physiological needs, can be satisfied through income derived from education, skills, and work experience. Studies have shown that higher wages, which result from human capital investments, allow individuals to meet their essential needs, such as housing and food (Lama & Kuri, 2017; Olaniran et al., 2022; Larsen et al., 2011; Oswald-Egg & Renold, 2021). Safety needs relate to job security and the assurance of stable employment. Research suggests that higher education levels and specialised skills provide individuals with greater job security, fulfilling their safety needs (Morrison, 2014; Emmenegger, 2009). Additionally, work experience can lead to benefits such as life and health insurance, further contributing to safety needs (Yumol, 2018).

Social needs, which encompass relationships and belonging, are also addressed by human capital factors. Education and skills can facilitate social connections, while work experience can enhance teamwork and communication, fostering a sense of belonging and social integration in the workplace (Gomes, 2020; Paolucci et al., 2021; Hosseini et al., 2022). Human capital also influences esteem needs, which involve self-worth and recognition. Higher education and skills can lead to higher income and personal reputation, fulfilling individuals' esteem needs (Gan, 2008; Zinko et al., 2012). Successful work experiences, such as completing significant projects, also contribute to positive self-esteem (Pierce & Gardner, 2004).

Finally, self-actualisation, the highest level of Maslow's hierarchy, is associated with realising one's full potential. Education, skills development, and diverse work experiences contribute to personal growth and career success, which are integral to self-actualisation (Lawati, 2019; Gcezegana et al., 2022; Koekemoer et al., 2019).

3.3 Mediating Role of Female Work Motivation

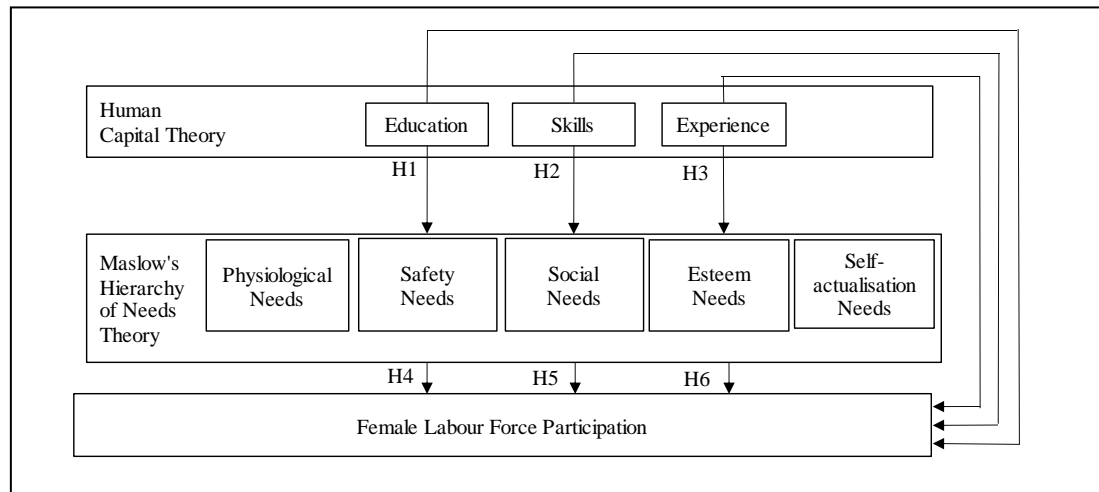
The framework hypothesises that female work motivation mediates the relationship between human capital factors and female labour force participation. This mediation suggests that human capital (education, skills, and experience) indirectly influences female labour force participation through its impact on psychological needs.

The specific hypotheses related to this mediation are:

- H4: Female work motivation mediates the relationship between education and female labour force participation.
- H5: Female work motivation mediates the relationship between skills and female labour force participation.
- H6: Female work motivation mediates the relationship between experience and female labour force participation.

For example, an individual's wage rate, influenced by work experience, not only fulfils physiological needs but also affects their decision to continue participating in the labour force (Olaniran et al., 2022; Thenuwara & Morgan, 2016). Similarly, education and skills can enhance job security, fulfilling safety needs and encouraging sustained labour market engagement (Adejumo et al., 2021).

Figure 2: Conceptual Framework



The conceptual framework in Figure 2 illustrates a complex interaction between human capital factors and psychological needs, as explained by Maslow's hierarchy of needs, in driving female labour force participation. Integrating these two theories provides a comprehensive understanding of how economic and psychological factors contribute to women's decisions to enter and remain in the workforce. The mediating role of female work motivation highlights the importance of addressing tangible and intangible motivators to increase female labour force participation.

4. Methodology

This study adopts a positivist research approach, emphasising empirical data and statistical analysis to uncover generalisable patterns and relationships. The positivist approach is suitable for this research as it allows for objective measurement and analysis of the factors influencing female labour force participation in Malaysia. The target population for this study is approximately 11.0 million women aged 18-60 years in Malaysia. Based on established guidelines, a sample size between 150 and 400 is appropriate for research employing Structural Equation Modeling (SEM) (Hair et al., 2022). According to Saunders et al. (2019), with a target population of 10.0 million and a 5.0% margin of error, the required sample size is 384. To ensure robustness, a sample size of 400 was deemed suitable for this study. SurveyMonkey and calculator.net were used to determine the appropriate sample size, both of which indicated that 385 participants would be required. A convenience sampling approach will be employed to select 400 female respondents aged 18-60 from the Klang Valley, Johor, and Perak. These regions represent 47.2% of Malaysia's total population and are considered representative of the study population. Specifically, approximately 200 respondents will be collected from Klang Valley, and 100 from each of Johor and Perak. Convenience sampling is chosen due to logistical constraints and the need for efficient data collection, allowing the researcher to select participants based on their availability and accessibility. A structured questionnaire will be developed to measure various factors related to female labour force participation. The questionnaire will consist of 5-point Likert scale questions, ranging from "strongly disagree" to

“strongly agree”, to capture the respondents’ perceptions and experiences. Questions will be adapted from previous research to ensure reliability and validity. The questionnaire will cover key constructs such as human capital, need satisfaction (based on Maslow’s hierarchy), and labour force engagement. Data will be collected through two primary methods: in-person interviews and online surveys.

This study employs Partial Least Squares Structural Equation Modeling (PLS-SEM) for data analysis, utilising SmartPLS software. PLS-SEM is selected for its predictive capabilities and its classification as a second-generation technique within structural equation modeling. This method is particularly suitable for exploratory research and predictive modeling, allowing for the simultaneous analysis of multiple regression models, even with complex models and smaller sample sizes. For this study, a reflective measurement model is employed. Reflective constructs involve indicators that are highly correlated with each other. These constructs will be assessed for reliability using measures such as Cronbach’s alpha and composite reliability, and for validity through convergent validity measures like average variance extracted (AVE) and discriminant validity using methods like cross-loadings and the heterotrait-monotrait ratio (HTMT). Following the assessment of the measurement model, the structural model will be evaluated based on criteria such as collinearity, significance of path coefficients, coefficient of determination (R^2), effect size (f^2), predictive relevance (Q^2). The significance of path coefficients will be determined through hypothesis testing, while R^2 measures the predictive power of the model. Effect sizes (f^2) provide insights into the relative impact of predictor variables, while predictive relevance (Q^2) assesses the model’s ability to predict outcomes. The use of PLS-SEM in this study allows for a comprehensive analysis of the complex relationships between human capital, need satisfaction, and female labour force participation, providing valuable insights into the research objectives.

5. Expected outcome and Conclusion

The study anticipates that human capital development will positively impact female labour force participation, and that this relationship will be significantly mediated by the fulfillment of needs as outlined in Maslow’s Hierarchy. The findings are expected to offer evidence-based recommendations for policies that promote gender equality and economic growth, aligning with Malaysia’s Ekonomi Madani goals. This study provides valuable insights into the relationship between human capital development, Maslow’s Hierarchy of Needs, and female labour force participation in Malaysia. The findings suggest that both human capital and the fulfillment of needs play critical roles in encouraging women’s participation in the workforce. Moreover, Maslow’s Hierarchy of Needs serves as a significant mediator, amplifying the positive impact of human capital on female labour force participation. The implications of this study are far-reaching, highlighting the need for policymakers to adopt a holistic approach that combines economic, educational, and social interventions to support women’s participation in the labour market. By addressing both human capital and the fulfillment of needs, Malaysia can make significant strides toward achieving the goals of the Ekonomi Madani initiative, promoting gender equality, and fostering sustainable economic growth. Despite its limitations, this study

lays the groundwork for future research and policy development in the area of female labour force participation. Further studies could expand on these findings by employing longitudinal designs and utilising more comprehensive data. Ultimately, this research contributes to a deeper understanding of the factors that influence female labour force participation and provides actionable insights for enhancing women's roles in the economy.

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128-142

THE EFFECT OF POVERTY AND EDUCATION ON CRIME RATES IN ACEH PROVINCE, INDONESIA: A PANEL DATA ANALYSIS

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ABSTRACT

Aceh is one of Indonesia's provinces with the highest poverty rate. When people live in poverty, they face difficulties in fulfilling their basic needs such as food, clothing, housing, and health care, and they will also find it difficult to fulfill their right to education. This condition can force people to look for shortcuts to meet their needs, including criminal acts such as stealing or committing violence, and so on. Therefore, this study analyzes how much poverty and education affect the crime rate in Aceh Province by using panel data analysis on 23 districts/cities during the period 2018Q1-2023Q4. The results show that poverty and education have a positive and significant influence on crime rates. This finding indicates that the higher the poverty rate, the higher the crime rate in a region. However, increasing education does not necessarily reduce crime rates, indicating that other factors need to be considered. Based on these findings, this study recommends comprehensive efforts to address poverty and improve access to quality education in Aceh. Education alone is not enough to reduce crime rates if it is not accompanied by adequate employment opportunities and supportive economic policies, as well as the creation of jobs that match the qualifications of graduates. Expectations that increase along with the level of education also need to be managed properly so as not to trigger deviant behavior such as criminal acts. These measures are expected to help reduce the crime rate and create a safer and more conducive environment for the community.

Keywords: Crime, Poverty, Education, FEM.

129-143

THE ROLE OF ACADEMIC RESILIENCE ON STUDENT ENGAGEMENT AND GOOD ACADEMIC PERFORMANCE AMONG FEDERAL UNIVERSITY STUDENTS IN SOUTH-EAST, NIGERIA

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ABSTRACT

The paper investigates the role resilience plays academically between student engagement and good academic performance. Some of the variables include Cognitive engagement, affective engagement and behavioral engagement as the independent variables; academic resilience as the mediating variable and Academic performance as the dependent variable. The results of this study show how positively related these three variables are. It further portrays the role resilience plays in achieving a good academic performance. Discussions and conclusion are the last section of the paper; which concludes that the results meet the research questions and objectives.

Keywords: Academic Resilience, Student Engagement, Academic Performance, Cognitive, Behavioral, Affective.

1. INTRODUCTION

The role resilience plays on the academic engagement of students in school and their academic performance is very important and cannot be ignored. South East Nigeria is the area mostly populated by the Ibos. The language spoken is the Igbo language. The south east is part of the six geopolitical zones in Nigeria and in this zone, there are five (5) states. These five states make up the South East Nigeria and they are: Abia, Anambra, Ebonyi, Enugu and Imo state. There are five federal Universities in South East Nigeria. This research deems it fit to focus on this federal universities using them as case study for this research work. Meanwhile, there are 53 Federal Universities in Nigeria; but only five are located in South East Nigeria. Aside from these five federal universities, there are also state-owned universities and as well as private universities in South East Nigeria. This research is focused on the Federal Universities as they are the most populated as well as a top-class government owned university. Resilience thereby is needed in such an environment as the population of students in Federal Universities make the workload tedious and means of effective learning very shallow. Hence, the main objective of this research

study is to determine the role of resilience on student engagement and good academic performance among University students in South-East Nigeria.

Over the past decades, the research on the role of resilience on good academic performance and student engagement has seen a progressive increase across countries in the context of experiences, different life situations, especially in the field of social sciences research, but none has been discussed on the role of resilience on good academic performance and student engagement in the academic context in South-East Nigeria.

Education is one of the imperative aspects that not only inculcates the essential skills, abilities and knowledge among individuals, but it is that imperative aspect also that leads to the overall growth and progress of individuals, communities and nation as a whole. Education is paramount in the world today. Every individual wants to get an education so as to aid him/her in piloting the affairs of this world. What then happens if education is not rightly gained and good academic performance is not achieved? Education will then become a waste of time and struggle (Cassidy, 2015). Good performance academically paves way to greater heights in the market place. In order to get good academic performance, students need to be resilient enough to bounce back when they are faced with difficulties that have to do with their education generally. Researchers, parents, government officials, and management of higher education have long been interested in identifying exactly what factors contribute to low students' performance in colleges and universities (Kuyoro et al, 2023). Getting good grades while in school is not something to be toiled with. It comes with struggles, pains, studies, stress, commitment, diligence, focus, avoiding distractions, spending time to study, and etcetera.

Some of the research objectives to be discussed include:

- To analyse the relationship between student engagement (cognitive engagement, affective engagement, behavioral engagement), academic resilience and academic performance.
- To determine the relationship between student engagement (cognitive engagement, affective engagement, behavioral engagement) and academic resilience.
- To study the mediating effects of academic resilience on student engagement (cognitive, affective, behavioral) and academic performance.

UNDERPINNING THEORY

The achievement goal theory (AGT) would be used in the course of this research. Nicholls founded the achievement goal theory in 1984. He described this theory as a psychological theory that looks at how people's goals and conceptions of success affect their drive, behaviour, and performance in educational or learning environments (Nicholls, 1984).

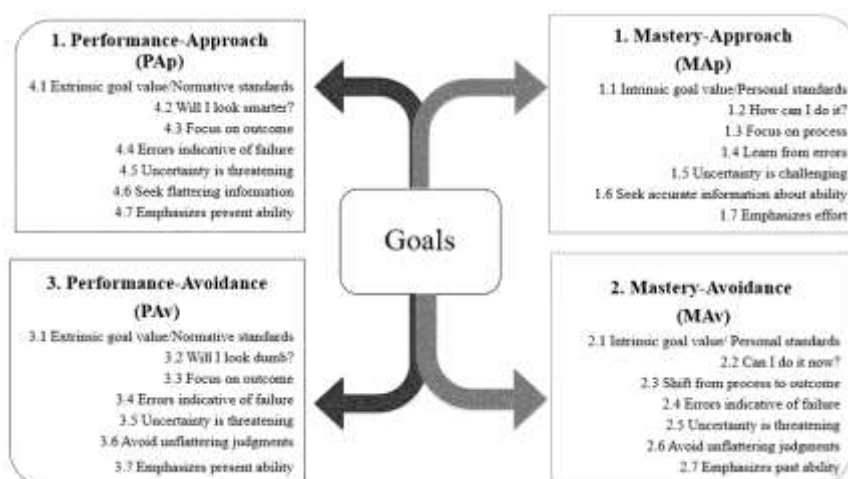


FIGURE 1: ACHIEVEMENT GOAL THEORY by Nicholls, 1984, Elliot and McGregor, 2001.

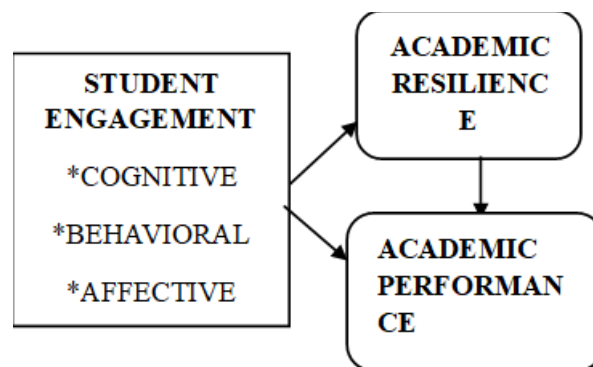
Both goals (mastery approach and performance approach) positively predict academic performance (Katz-vago et al, 2023). By creating a mastery-oriented environment and performance approach goals, educators can use AGT concepts to boost student engagement, resilience, and academic performance. This entails developing a welcoming and inclusive learning atmosphere, highlighting the importance of progress and effort, assigning demanding and important assignments, and providing constructive feedback. Teachers can improve their students' motivation, engagement, resiliency, and performance in school by encouraging a mastery approach orientation as well as performance approach orientation. Studies have found that approach goals (mastery and performance) have a positive predictive effect on academic performance (Zhong et al, 2023).

LITERATURE REVIEW

The education sector, which is widely an accepted sector, is highly important as it plays a very powerful role in the development of any nation and recently, it is fast becoming potent in Sub-Saharan Africa (David & Amina, 2020). In Nigeria, a lot of students undergo a lot of academic and environmental stress, particularly in Federal universities. With the cost of goods and services surging everyday makes it more difficult to have access to some quicker ways to making academic engagement fun. The poor internet connection plus not every student can afford that, the style of writing and keeping bulky academic notes whereas it can be stored in a computer, having going to class every day instead of shifting some days for online classes, etcetera, makes it more difficult and very stressful for students to cope academically. Other factors such as: family and social support, course overload, time management, exercise, poor nutrition, health factors, sleep patterns, finance, all contribute to stress for students (Emmanuel, 2021). The struggle to make ends meet while studying can also be very stressful. But in the midst of all this, Nigerian students still thrive to make it excellently well academically. They know how to be resilient and overcome any situation they find themselves. They believe the word “I Can”, so, it keeps them motivated and resilient to forge ahead. Although, some are not able to cope, but

many are willing to be resilient. The study suggests that resilience plays a critical role in academic success, and that resilience will mediate the relationship between cognitive engagement and academic performance. By understanding the relationship between these factors, educators can better support students in achieving their academic goals and fostering a positive academic environment. Education, which is universally accepted has to do with the academic performance of the students. In fact, authors have agreed in their studies that the academic performance of students is linked with education, as the good academic performance of students is the main and centre element of education (Anthony Abaidoo, 2018). Romano et al. (2021) found that a positive learning environment can promote cognitive involvement among students, which is crucial for academic excellence. However, achieving academic success is not solely dependent on cognitive engagement. Resilience, which refers to the capacity to adjust and flourish in challenging circumstances, is a crucial factor in academic achievement. Studies have shown that resilience can function as a protective factor, enabling students to sustain their cognitive involvement despite academic hurdles. This study examines the relationship between academic performance and student engagement, focusing on cognitive, affective, and behavioral engagement. Resilience plays a crucial role in the relationship between student engagement and academic performance. However, when students face excessive stress, they may struggle to cope, leading to poor academic performance. Students who exhibit resilience are more likely to overcome stress and perform well academically. Conclusively, the relationship between resilience and academic performance is clear, with student engagement bringing multiple benefits such as good academic achievement, grades, and motivation. When combined, resilience and student engagement can lead to improved academic performance.

The below figure shows the **research framework**:



Methodology

This is a quantitative and positivism research approach. This research approach is preferred by positivists because positivism is firmly rooted in rationalism, meaning that knowledge should be unbiased by being free from any form of bias (Gemma, 2018). This research is a survey research design with a cause and effect study that involves the federal university students in the South-Eastern part of Nigeria. This survey research was chosen because this research is a type of quantitative research that allows the use of questionnaire design, to measure and evaluate the

characteristics of a population using statistical methods (Oberiri, 2017). This is also a cross sectional research. The focus of this study is on the population of students from Federal Universities in the South Eastern part of Nigeria. There are 52 Federal Universities in Nigeria (National Universities Commission, 2023). Out of 52, this study will conduct a research study from 5 of the Federal Universities such as University of Nigeria, Nsukka; Nnamdi Azikiwe University, Awka; Federal University of Technology, Owerri; Michael Okpara University of Agriculture; and Alex Ekwueme Federal University, Ndufu Alike Ikwo (AE-FUNAI). The reason for selection is because, these are the only federal universities situated in the south eastern part of Nigeria. Therefore, the proportionate stratified random sampling technique will be used to determine the size of the sample for each of the federal universities as stated earlier. From the Krejcie and Morgan sampling table (Krejcie, 1970), a total number of 384 respondents are needed. This thereby means that a total number of 384 questionnaires was shared and distributed in these five federal universities. The sample size for each federal university is depicted in table below:

| FEDERAL UNIVERSITY | TOTAL NUMBER OF SIZE REQUIRED |
|-------------------------------|--|
| UNN | (43,108/148,758) 384= 111 |
| UNIZIK | (40,000/148,758) 384 = 103 |
| FUTO | (22,610/148,758) 384 = 58 |
| MOUAU | (30,078/148,758) 384 = 78 |
| AEFUNAI | (12,962/148,758) 384 = 34 |
| TOTAL | 384 |

Analysis and Results

The below show the results obtained from the respondents who participated in the studies. Note: These are some of the acronyms used in these analyses and their full meanings. AP is Academic Performance. AE is Affective Engagement. BE is Behavioural engagement. CE is Cognitive engagement. AR is Academic Resilience.

Measurement model

Upon examining the results below, it is evident that the data are reliable due to their strong Cronbach alpha, with none exceeding .95, which would indicate a redundant data and none below 0.7 According to George and Mallery (2003), the majority of the values are greater than .70, indicating good data reliability. The AVE threshold value below 0.5 level, indicated the data possessed convergent validity. However, the Cronbach's Alpha and Composite Reliability threshold values are above 0.7 level.

See table below for tabular depiction:

RSQUARE

Rsquare measures the variance how the independent variable measures the dependent variable. Looking it could be seen that its significant. R square of 0.336 indicated that 33.6 percent of the variance in predicting Academic Performance was explained by the model. See below to see the table representing this.

| | R- square | R- square adjusted | P values |
|--------------------|--------------|--------------------------|-------------|
| <i>Performance</i> | 0.546 | 0.539 | 0.000 |
| <i>Resilience</i> | 0.319 | 0.314 | 0.000 |

PATH COEFFICIENT

From the analysis run in the table below, the path coefficients can be seen. Path co-efficient is a linkage to the variables. From the path co-efficient, we could see that students need to improve in their cognitive engagement and as well as in their affective engagement. As we could see that the path co-efficient for behavioural engagement and resilience are higher. The table below explains in clear terms. From the table below, it is seen that there is a relationship between all the independent variable and the mediating variable. It could also be seen that the mediating variable has a relationship with the dependent variable. This therefore answers the hypothesis earlier stated.

| | Cronbach's alpha | Composite reliability (rho_a) | Composite reliability (rho_c) | Average variance extracted (AVE) |
|-----------|---------------------|-------------------------------------|-------------------------------------|---|
| AP | 0.928 | 0.934 | 0.946 | 0.777 |
| AE | 0.911 | 0.926 | 0.933 | 0.737 |
| BE | 0.866 | 0.893 | 0.900 | 0.644 |
| CE | 0.914 | 0.920 | 0.936 | 0.745 |
| AR | 0.890 | 0.906 | 0.920 | 0.699 |

| | AP | AR | AE | BE | CE |
|-----------|-----------|-----------|-----------|-----------|-----------|
| AP | | | | | |
| AR | 0.603 | | | | |
| AE | 0.516 | 0.397 | | | |
| BE | 0.689 | 0.393 | 0.591 | | |
| CE | 0.529 | 0.605 | 0.584 | 0.386 | |

| | Original sample (O) | Standard deviation (STDEV) | P values |
|----------------------------|---------------------------|----------------------------------|-------------|
| AE-> AR -> AP | 0.129 | 0.021 | 0.000 |
| CE -> AR-> AP | 0.122 | 0.026 | 0.000 |
| BE-> AR -> AP | 0.051 | 0.017 | 0.003 |

HTMT

An analysis was ran to check the validity of the variables. This test is known as the Heterotrait Monotrait ratio (HTMT). The construct should be less than 0.9. When it is lower than 0.9, this shows that all of these constructs discriminate among each other. See table below for tabular explanations.

INDIRECT EFFECT

The model's indirect relationship results shed light on how some constructs impact other constructs via a mediating variable. Looking at the table below, it could be seen that the indirect effect of academic resilience on all engagement variables are significant. This thereby explains that academic resilience mediates the relationships between the independent variables herein and the dependent variable. This proves that there is a specific indirect relationship between behavioural engagement and academic performance as well as a specific indirect relationship between cognitive engagement and academic performance and also a specific indirect relationship between affective engagement and academic performance.

See table below for tabular depiction.

| | Original sample (O) | Sample mean (M) | Standard deviation (STDEV) | P values |
|----------|---------------------------|-----------------------|----------------------------------|-------------|
| AR -> AP | 0.269 | 0.268 | 0.048 | 0.000 |
| AE -> AP | 0.268 | 0.267 | 0.047 | 0.000 |
| AE -> AR | 0.188 | 0.188 | 0.050 | 0.000 |
| BE -> AP | 0.481 | 0.481 | 0.037 | 0.000 |
| BE -> AR | 0.189 | 0.189 | 0.051 | 0.000 |
| CE -> AP | 0.134 | 0.134 | 0.043 | 0.002 |
| CE -> AR | 0.454 | 0.453 | 0.044 | 0.000 |

Findings and Discussions

After a proper analysis of the data listed as explained above, it is seen that resilience has a relationship between student engagement (cognitive, behavioural and affective) and academic performance.

Furthermore, a reliability test was done starting with the outer loadings down to the AVE, to the Cronbach Alpha, the composite reliability and etcetera. They all prove to be significant. When the Cronbach Alpha was ran, it was discovered that they were all above .7 which tells good on

the reliability of the data. This implies that the data is internally consistent and reliable. A high reliability resulted in the engagement variable, resilience variable and then the performance variable.

Discriminate validity tests were run and it could be seen that these constructs discriminate among each other. After that, the structural model consisting of the Rsquare, path coefficient and the specific indirect effect was tested and they support the objectives earlier stated.

Conclusively, there is actually a relationship between student engagement, academic resilience and academic performance. All tests signify that there is a relationship and also a significant one to be precise.

Recommendations and Suggestions for Future Research

It is imperative to understand that these findings shape the nature of the academic sector in the South East of Nigeria. The Nigeria institutions most especially that of the South East of Nigeria need to put much effort on engaging their students using the Achievement goal theory as a yardstick for engagement.

It is now seen that academic resilience mediates the relationship between cognitive engagement, behavioural engagement, affective engagement and academic performance. This shows the strength of academic resilience on the performance of students. Universities in the south east are encouraged to use the Achievement goal theory to engage their students so as to achieve academic excellence.

More studies could be done also in this context focusing more on a larger scale of respondents. More universities could be studied most especially the state universities in the South East of Nigeria. There is little or no research on that sector. More so, it is suggested that other researchers could look at the student engagement being a mediator between academic resilience and academic performance. This gives a different narrative on the field of academic performance.

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138-152

THE EFFECT OF OIL PRICE ON SELECTED ECONOMIC SECTORS IN MALAYSIA

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ABSTRACT

This study investigates the impact of oil price shocks on selected economic sectors in Malaysia, specifically agriculture, mining and quarrying, manufacturing, and construction. Utilizing a Structural VAR model, the study analyses Malaysian data from 1987 to 2023. The results reveal that positive oil price shocks elicit a favourable response across all sectors studied, indicating that rising oil prices facilitate growth in these areas. This outcome is anticipated, considering Malaysia's status as a net oil-exporting nation. The findings highlight a positive correlation between oil price shocks and the performance of these critical economic sectors, suggesting that Malaysia's economy reaps the benefits of increasing global oil prices due to its ability to leverage higher energy commodity prices.

Keywords: Oil Price, Economic Sectors Malaysia, Structural VAR.

143-158

SMES RESILIENCE AND SURVIVAL DURING GLOBAL CRISES: A SYSTEMATIC REVIEW

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ABSTRACT

Given that small and medium-sized enterprises (SMEs) are the backbone of the economy, SME survival and resilience are vital during financial, health, or social crises, such as war or political upheaval. The current study conducted a systematic literature analysis from theoretical perspectives supporting SME survival during a crisis. A Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) systematic review was performed, including literature from SCOPUS, Web of Science (WoS), and Google Scholar. Out of the 40 reviewed papers, the top five most commonly used theories to ensure SME resilience and survival were the resource-based view, competitive advantage, leadership, entrepreneurial, and innovation theories. The first paper in the review was from 2003 with research spanning up to 2022. The literature also employed quantitative, qualitative, and mixed methodologies where most approaches were quantitative. Tangible and intangible resources, effective leadership, competitive advantage, entrepreneurial innovativeness, and a combination of these resources could confirm long-term survival among SMEs during crises.

Keywords: Global Crises, Health Crisis, Terrorism, War, Financial Crisis, SMEs.

157-163

AN ECONOMIC ANALYSIS OF THE WILLINGNESS TO PAY FOR IMPROVED WATER QUALITY AND RELIABILITY IN SURABAYA, INDONESIA

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ABSTRACT

As the second largest city in Indonesia after Jakarta, Surabaya faces a fundamental problem of basic needs: the poor quality of clean water for domestic use. The research aims to estimate the economic value of clean water to households in Surabaya. The economic valuation was conducted using the contingent valuation method to determine households' willingness to pay for improved water quality and reliability. The valuation is limited to urban households subscribing to PDAM. The results show that the majority of respondents support a programme that would improve both water quality and supply reliability. Typical socio-economic characteristics such as source of clean water, economic and demographic characteristics were also found to influence WTP. In terms of policy implications, the study strongly suggests that the service provider should improve both water quality and reliability. In particular, PDAM should increase access to clean water, minimise health risks, and improve production efficiency to enable affordable pricing of clean water for the citizens of Surabaya. This research also supports PDAM's long-term strategic plan to improve water quality and reliability in Surabaya.

Keywords: Willingness to Pay, Clean Water, Surabaya.

ENTREPRENEURIAL GROWTH

021-014

SUSTAINABLE FACTORS TRANSFORMING SOCIAL MEDIA INFLUENCERS INTO SUCCESSFUL ENTREPRENEURS IN MALAYSIA

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ABSTRACT

In the digital economy, the adoption of social media for promoting and recommending products has increased and become more significant for businesses. Prior research shows that nearly 80 percent of companies that share their products and services on social media believe it positively influences their company's revenue and sales. However, this newly emerging trend has only minimally explored the success of social media influencers as entrepreneurs. This study aims to explore the sustainable factors for social media influencers to succeed as entrepreneurs. Social Exchange Theory is employed to discuss the successes of entrepreneurs who are influencers on social media. Through an exploration of 20 relevant literature, the findings of this study reveal that technology usage, human relationships, personal branding, and education level are among the factors associated with the success of social media influencers as entrepreneurs. The findings of this conceptual paper add value to the current knowledge of social media influencer-entrepreneurs and provide a holistic view of their success factors.

Keywords: Sustainable Factors, Social Media Influencers, Entrepreneurs, Business Success.

023-018

THE INFLUENCE OF CHALLENGES, SKILLS, AND KNOWLEDGE ON RURAL AGRICULTURAL ENTREPRENEURSHIP MANAGEMENT

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ABSTRACT

This study aims to identify skills and knowledge related to rural agricultural entrepreneurship management. The research population requires researchers to identify populations because it is necessary to rationally discuss the selection of study samples involved in providing the data and information collected to answer the study questions. All members of the group studied were study populations. In this research population, there are rural youths who are active in agricultural entrepreneurship in Sabah. The design of the studies was descriptive, using the survey method. Questionnaires as a study instrument were used to obtain quantitative data involving 300 rural respondents. The use of the questionnaire method is due to the appropriateness of this method used in the study, in addition to the respondent. In the questionnaire, a uniform question can be created, which makes it easier to analyze the data. Descriptive studies are used to obtain data by using questionnaires involving independent variables, i.e., skills and knowledge, while dependent variables are rural agricultural entrepreneurship management. Using quantitative approaches and survey methods appropriate to the objectives, the question of the study, the size of the population and the sample of the study, as well as the geographical location of the study, we will be able to collect information from a large number of respondents involving sampling the collection of information on skills, knowledge, and rural agricultural entrepreneurship management. The data obtained, descriptively analyzed (mean, standard deviation, percentage, and frequency), and inference Descriptive analysis shows that the skill level of youth is high. Whereas, the knowledge level is moderately high. The inference analysis showed that there was a significant influence on skills and knowledge toward rural agricultural entrepreneurship management. The implications of this study suggest that agricultural entrepreneurship management should be constantly improved over time, especially in terms of mastery of knowledge, attitudes, and skills. As a result, the level of skills among rural youth shows the participants' general acceptance of the skills toward rural agricultural entrepreneurship management. The results demonstrate that skills in rural agricultural

entrepreneurship management are at a reasonably high level, indicating an opportunity for improvements when it comes to fostering an encouraging mindset toward rural youth. Having a general understanding of rural agricultural entrepreneurship management can help rural youth who lack knowledge to comprehend the reasoning behind management decisions they make, such as management of raw materials and machines, and the results of such actions. Therefore, in order to become knowledgeable and improve their ability to better integrate and analyze information while making decisions, every rural youth should be familiar with rural management in terms of agriculture. Thus, the influence of contributing factors on rural agricultural entrepreneurship management shows that skills and knowledge contribute significantly to the high variance. This shows that rural youth might be influenced to be interested in entrepreneurship management through attractive and effective skills that relate to knowledge.

Keywords: Skills, Knowledge, and Rural Agricultural Entrepreneurship Management.

039-031

ANALYZING THE CONTRIBUTING FACTOR OF THE COMPANY'S RECRUITMENT AND SELECTION PROCESS ON THE QUALITY OF SKILLED GRADUATES

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ABSTRACT

Recruitment and selection are the most essential function of Human Resource Management (HRM). HRM practice is a contributing factor that influences the quality of skilled and vocational graduates. The recruitment process involves several key activities to fill up vacant positions in the company. Companies are utilizing different methods and tools to recruit and hire the most qualified employees. Therefore, there are several factors that determines the effectiveness of the recruitment and selection process of employees. This study aims to examine the factors of employment by SMEs companies in Malaysia. The factors included in this process by the company include high qualifications, employability and benefits, the role of government, expertise, and dependency of foreign workers. This study employs a quantitative approach through a selfadministered questionnaire distributed during a job fair held at the Kuala Lumpur Expo Kerjaya Jamin Kerja Keluarga Malaysia in July 2022. A total of 63 employers were selected for the study and then analysed using Statistical Package for the Social Sciences software (SPSS 26.0). The findings of the study demonstrate that the main aspect emphasized by employers in hiring employees is employability and benefits in the performance of duties. This study adds additional input to the body of knowledge that benefits the professionals and academics.

Keywords: Recruitment, Task Performance, Skills and Vocational Graduates, Malaysia.

1.0 INTRODUCTION

Recruiting skilled and vocational graduates is crucial for Malaysia to develop a workforce that aligns with industry demands. Company are encouraged to value candidates who contribute substantial knowledge and skills. Additional factors, such as employability, benefits, the role of

government, and dependence on foreign workers, are also crucial in facilitating effective task performance. To boost productivity, it is crucial for companies to streamline their hiring processes and optimize resource utilization. Overall, emphasizing effective hiring factors is necessary to maintain constant workflow within company, allowing them to plan and strategize for tasks requiring specific skills while sustaining costs, time, and energy. This study will examine how recruitment can effectively address industry needs in Malaysia by finding and hiring skilled graduates with the right qualifications and expertise for a strong workforce. Furthermore, this study underscores the critical importance of hiring individuals who possess robust qualifications and specialized expertise, as these attributes are essential for meeting the evolving demands of the industry and ensuring the continued growth and competitiveness of the workforce. Nor and Ahmad (2023) reported that 72% of proficient graduates in Malaysia obtain jobs within six months post-graduation, indicating beneficial employment trends. Nonetheless, Tan and Lim (2024) point out that, despite this relatively elevated employment rate, persistent challenges in the job market continue to impact graduate employability. This suggests that the job search process and the alignment with industry requirements still pose considerable difficulties. According to Doe and Smith (2023), only 25% of company report achieving significant success with e-recruitment. Hiring individuals who lack the required skills can adversely impact their performance and subsequently hamper the growth and human resource capital of the company. In contrast, Smith and Davis (2022) explore how offline recruitment methods, such as job fairs and newspaper ads, continue to be grandiose ways in attracting candidates despite the rise of digital recruitment tools. This conception is further supported by Ployhart and Schneider (2012), who accentuate that effective recruitment practices are crucial for aligning candidate qualifications with organizational needs, thereby enhancing overall performance. Additionally, Brown and Green (2022) examine the significance of traditional recruitment techniques, including direct mail and face-to-face interviews, highlighting their value in enhancing online recruitment approaches. Therefore, utilizing comprehensive evaluation methods and competency assessments can assist in confirming that new employees have the necessary qualifications and align with the company's requirements. By adopting these approaches, company can enhance their recruitment processes, reduce the likelihood of selecting unqualified candidates, and more effectively foster their long-term development and success. Companies should integrate comprehensive skills assessments and competency evaluations into their recruitment processes to ensure candidates own the necessary expertise.

1.1 Objectives Of Study

This study aims to investigate the employment factors prevalent in Malaysian SMEs:

1. To identify the relationship between high qualifications and task performance in Malaysian SMEs.
2. To examine the relationship between employability and benefits concerning task performance in Malaysian SMEs.
3. To explore the relationship between the government's role and task performance in Malaysian SMEs.
4. To assess the relationship between expertise and task performance in Malaysian SMEs.

5. To determine the relationship between the dependence on foreign workers and task performance in Malaysian SMEs.
6. To identify the moral values of local versus foreign workers.

1.2 Research Questions

1. What is the relationship between high qualifications and task performance in Malaysian SMEs?
2. How does employability and benefits relate to task performance in Malaysian SMEs?
3. What impact does the government's role have on task performance in Malaysian SMEs?
4. How does expertise relate to task performance in Malaysian SMEs?
5. What is the relationship between the reliance on foreign workers and task performance in Malaysian SMEs?
6. Are moral values higher among local workers compared to foreign workers?

1.3 Hypothesis

Based on the research questions, the following hypotheses are proposed:

- **Hypothesis 1a:** High qualifications positively correlate with task performance.
- **Hypothesis 1b:** Employability and benefits positively correlate with task performance.
- **Hypothesis 1c:** The government's role positively affects task performance.
- **Hypothesis 1d:** Expertise positively influences task performance.
- **Hypothesis 1e:** The dependence on foreign workers positively relates to task performance.
- **Hypothesis 1f:** Local workers exhibit higher moral values compared to foreign workers.

1.4 Importance of the Study

The findings of this study are expected to serve as a valuable resource for various stakeholders:

- **Government:** The results may provide insights for formulating strategic programs aimed at developing a skilled workforce needed by the industry and offering various incentives.
- **Non-Governmental Organizations (NGOs):** The findings can guide NGOs in collaborating to create strategic plans that generate job opportunities for seekers.
- **Employers:** Results will help employers grasp crucial factors to consider before hiring, enabling them to develop strategies that enhance task performance.
- **Job Seekers:** This study can assist potential job seekers in presenting themselves as valuable candidates.

Additionally, this study investigates the significance of ten moral value criteria among foreign and local workers, focusing on employer perceptions regarding which group demonstrates positive values that enhance task effectiveness.

1.5 Problem Statement

Based on the career challenges faced by skilled and technical graduates in securing positions within the industrial sector, discussions are increasingly addressing issues such as job prospects, necessary skills, as well as barriers like limited settlement opportunities, insufficient incentives, and inadequate career advancement platforms. A recent study has investigated employer perspectives on the factors influencing the hiring of skilled and technical graduates. Graduates may encounter specific barriers when entering the industrial sector, such as lack of practical experience or complexity navigating the job market (Barnett & Bradley, 2007). Understanding how employers perceive these barriers can assist in designing better support mechanisms for new entrants. Employers often cite concerns about the lack of clear career advancement paths for new hires. This study will examine how the perceived limitations in career growth influence employer willingness to hire and invest in skilled and technical graduates. Additionally, even though there are more skilled and technical graduates, employers often find that the graduates' skills don't match what's needed for jobs in the industrial sector. This gap makes hiring less efficient and can hurt the sector's productivity (Deloitte, 2020). Employers may face challenges in attracting and retaining skilled graduates due to insufficient incentives or benefits. Analysing employer perspectives on incentive structures and their impact on graduate retention will provide insights into how to enhance recruitment strategies (Tymon, 2013).

2.0 LITERATURE REVIEW

In the transmogrify sphere of recruitment, various essential factors play a significant role in determining the success and results of hiring processes. Notably, a candidate's qualifications and employability are key factors in how companies hire and select talent. The qualifications of potential employees frequently dictate their suitability for specific positions and their ability to enhance the success of the company. This study examines various perspectives of stakeholders interested in hiring that can ameliorate task performance and fulfil the strategic needs of the industry. A strong recruitment and selection process is essential to make sure that new hires are truly fit for their roles and benefit everyone involved. The significance of this process is underscored by Torrington and Hall (1991) that emphasizes well-structured recruitment process aid company to identify experienced professional and advanced academic qualifications align with job requirements, thus enhancing job performance and overall organizational effectiveness. In addition, Zhang and Chen (2023) explore the impact of refining hiring processes on task performance, highlighting effective strategies for company. Their research emphasizes best practices in recruitment and selection, such as the use of structured interviews and skill assessments. They contend that enhancing these processes not only ensures a better placement between employees and their positions but also increases overall efficiency and productivity in task performance. Taylor and Robinson (2023) provide insights into the ways in which strategic hiring practices can boost task performance.

Their study highlights recent discoveries indicating that focused recruitment methods, such as aligning job descriptions with performance criteria and utilizing data-informed hiring tools, can greatly enhance task performance and overall organizational effectiveness. The research promotes a strategic hiring framework that prioritizes the alignment between employee competencies and job requirements. Indeed, the employee should possess excellence skills, in addition to qualities like perseverance and resilience, to truly distinguish themselves. In order to highlight higher qualification, Becker (1993) emphasizes the notion that elevated levels of educational achievement improve job performance by equipping individuals with superior skills and knowledge. Kalleberg and Vaisey (2005) emphasize the beneficial effects of high qualifications on job performance, asserting that advanced education generally leads to more favorable job outcomes. Dollar to doughnuts, this suggests that investing in higher education is likely to enhance not only individual career prospects but also overall job satisfaction and performance, given the correlation between educational attainment and improved work-related competencies.

In the perspective of employability and benefits, Carnevale, Smith, and Strohl (2013) elaborate on how enhanced employability and associated benefits can improve job performance by fostering greater job satisfaction and productivity. Meanwhile, Green (2013) investigates the ways in which employability and benefits enhance job performance through increased motivation and skill development. Under the role of government, according to Freeman (2005), the government plays a significant role in enhancing employment outcomes by implementing initiatives that aid in job placement and provide training opportunities for workers. Furthermore, Wong and Ngo (2011) highlight that government interventions, including job placement services and training programs, are essential in bolstering the performance of vocational graduates. Moreover, Lee and Park (2023) emphasize the essential of government policies as a fundamental factor influencing employment trends. Their research indicates that different governmental initiatives, such as job creation programs and regulatory changes, possess a substantial effect on employment rates and hiring practices. Furthermore, Malaysia's government initiatives can support SMEs remain competitive and aid in developing effective recruitment strategies (Nor & Jamaluddin, 2018). Job offerings become more accessible when the government implements interactive programs, including "job search campaigns" in various regions. The importance of expertise is vital for effective task performance, as employees with specialized knowledge and skills generally excel in their respective roles (Tushman & O'Reilly, 1996). Wright and McMahan (1992) further affirm this perspective, indicating that a greater depth of expertise significantly enhances job performance through improved problem-solving capabilities and operational efficiency. The reliance on foreign labor can impact task performance, as the skills and successful integration of these workers into the workforce can significantly affect overall productivity (Coe & Jordhus-Lier, 2011). Perkins and Neumayer (2014) expand on this notion by emphasizing that the effectiveness of foreign workers in enhancing productivity is contingent upon their successful adaptation to their roles within the company. Moral values also play a critical role in task performance, with local employees frequently regarded as possessing superior moral standards compared to their foreign counterparts, which can influence their workplace effectiveness (Rokeach, 1973). Schwartz (1992) reinforces this perspective by asserting that moral values are integral to task performance, noting that local workers typically demonstrate higher ethical standards than foreign workers.

Other crucial potential influences encompass job market readiness, advantages, and skill sets. Company might implement equitable compensation practices, offer training and development programs, and establish incentive frameworks. In striving for task performance, SMEs increasingly depend on foreign labour due to local workers' job preferences and high salary demands, prompting employers to seek foreign workers to address labour shortages across sectors (Faizah, 2021). By concentrating on task performance within organizational planning, SMEs can enhance efficiency, effectiveness, and employee engagement in meeting business objectives. Therefore, the collaboration of all stakeholders is essential to reduce foreign labour dependency and encourage local workers to develop the necessary work and soft skills to attract job opportunities. Implementing effective methods to address the lack of job offers for local skilled and vocational graduates is critical. Consequently, decisive actions are required to identify effective strategies that streamline the hiring process and select local candidates with both technical and soft skills. Judge and Bono (2001) discovered a strong correlation between core self-evaluations, which encompass self-esteem and general self-efficacy, and both job satisfaction and performance, highlighting the critical role these traits play in task performance. A comprehensive understanding of task performance necessitates an examination of various elements, such as qualifications and benefits, that enhance job effectiveness (Campbell, 1990).

Today's companies must navigate the complexities of selecting appropriate employees, which incurs costs including training and expertise (Noor Sharulniza, 2022). Company need to adapt to the rapidly changing high-tech landscape and establish more efficient recruitment and selection frameworks. Recruitment factors play a significant role as they measure the effectiveness of the company's hiring practices. In particular, expertise significantly influences hiring decisions, with high qualifications regarded as essential when selecting prospective employees, regardless of whether they hold a diploma or merely a certificate. This study aims to assess the extent to which certificate holders are prioritized by companies for job placements in skilled fields. In essence, company often favor hiring candidates with higher qualifications such as diplomas, neglecting certificate graduates. Consequently, certificate holders frequently find themselves overlooked for job vacancies. Companies should focus on integrating certificate holders into skill-based and technical roles that align with their qualifications. The skills of certificate graduates are particularly valuable in smaller sectors such as hairdressing, auto repair, and technical services. Addressing challenges in recruitment and selection practices is vital to achieving efficiency and ensuring the overall success of human resource management. Thus, investigating the relationship between hiring factors and task performance is imperative.

2.1 Underpinning Theory

The chosen theory will give a bigger picture and lead to solve the hypothesis in this study. Therefore, the researcher used the Resource-Based View (RBV) as a most appropriate theory in clarifying the conceptual framework between influencing employment and Task Performance for the Malaysian SMEs. The Resource-Based View (RBV) emphasizes the strategic significance of resources and capabilities, particularly human capital, in securing a competitive edge (Barney, 1991). This theoretical framework aids in comprehending the influence of

qualifications, expertise, and governmental actions on task performance through the effective utilization of organizational resources. Makadok (2001) combines the Resource-Based View (RBV) with the notion of dynamic capabilities, examining the ways in which companies can generate and maintain competitive advantages by effectively managing resources and developing their capabilities

2.2 Theoretical Framework

Based on the literature, the framework for the factor of the company's recruitment and selection process on the quality of skilled graduates illustrated in Figure 1.

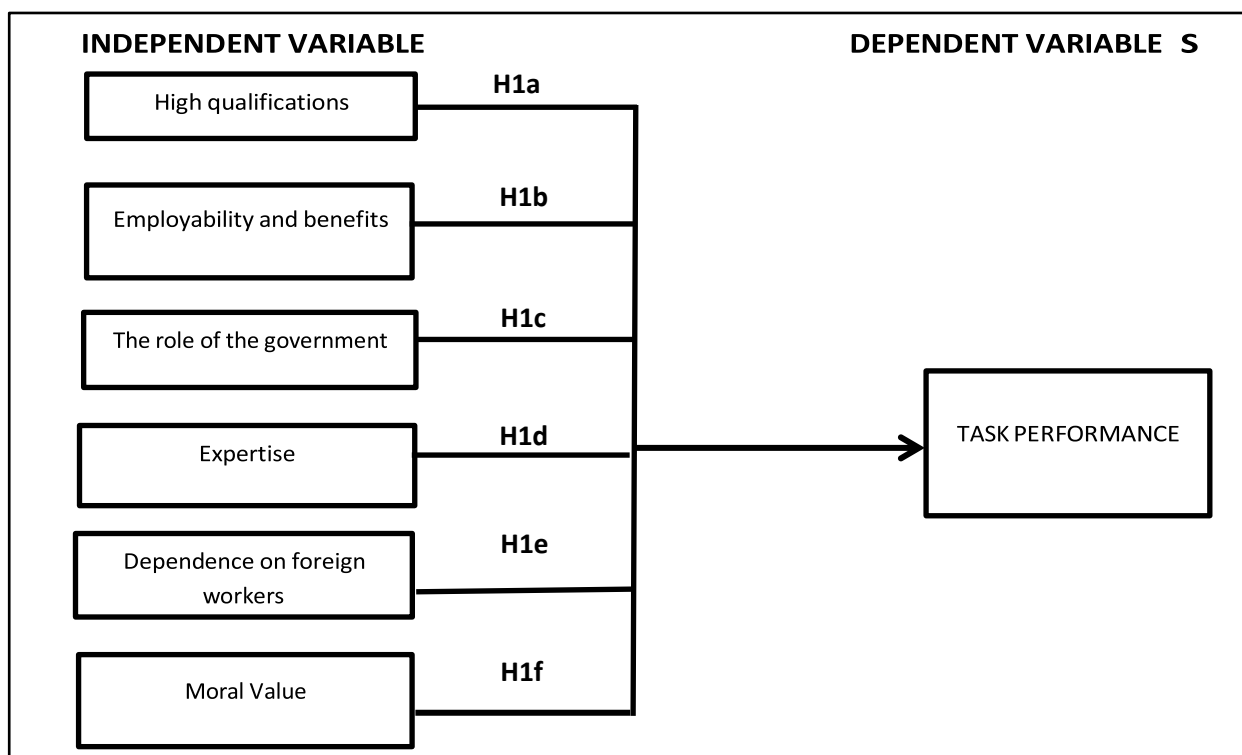


Figure 1. Conceptual framework for Factor of the Company's Recruitment and Selection Process on The Quality of Skilled Graduates

Explanation

1. **High Qualifications:** This variable directly impacts Task Performance by providing employees with the necessary academic and technical expertise. Higher qualifications generally correlate with better job performance due to enhanced skills and knowledge.
2. **Employability & Benefits:** This factor also directly influences Task Performance. When employees have access to better benefits and job opportunities, their motivation and productivity tend to increase, which enhances their performance at work.

3. **Expertise:** This factor is a crucial direct contributor to Task Performance. Employees with specialized skills and experience are better equipped to perform their tasks effectively.
4. **Role of Government:** Government initiatives can influence Task Performance both directly and indirectly. Effective government programs can improve job matching and provide support that enhances the overall performance of employees.
5. **Dependence on Foreign Workers:** This variable influences Task Performance through its direct and indirect effects. Dependence on foreign workers can impact performance based on their skill levels and how well they integrate into the local work environment.
6. **Moral Values (Local vs. Foreign):** Moral values are considered in the framework as influencing Task Performance indirectly. Higher moral values are associated with better work ethics and motivation, potentially enhancing overall job performance.

3.0 METHODOLOGY

3.1 Sample Selection Process

This study concentrated on Small Medium Enterprises (SMEs) vendor that participated in a job fair held in Kuala Lumpur, which consolidate by 200 businesses. To achieve a representative sample, a random sampling method was employed, resulting in the selection of 132 businesses for the distribution of questionnaires. As per the guidelines established by Krejcie and Morgan (1970), a sample size of 132 is deemed appropriate for a population of 200 to ensure statistical significance. To mitigate the impact of potential non-responses, we distributed 150 questionnaires to secure the necessary number of valid responses.

3.2 Data Collection

Data collection took place during the job fair at the Kuala Lumpur Expo Kerjaya Jamin Kerja Keluarga Malaysia in July 2022. This event served as an excellent platform for gathering insights from a wide range of SMEs. The participating companies included Jeram Coconut Sdn. Bhd., FTK Ice Cream Sdn. Bhd., Annona Sdn. Bhd., LifeSun Food Industries Sdn. Bhd., Perusahaan Maz

Sdn. Bhd., Solid, Rias Kosmetik, Total Constant Sdn. Bhd., Eco Carton Sdn. Bhd., Ey-Safa Resources, Tropical Bioessence Sdn. Bhd., and Yadan Food Industries, among others. A total of 150 questionnaires were distributed to participants at the job fair. Out of these, 140 responses were collected. After careful examination of the responses, we determined that 63 were complete and valid for our analysis. These 63 valid responses served as the basis for deriving insights and conclusions for the study. The other responses were either incomplete or deemed invalid and were therefore excluded from the final analysis.

3.3 Sampling and Participants The survey encompassed 63 employers from various SMEs. These employers were chosen through a random sampling technique from the pool of vendors present at the job fair. This methodology ensured a representative sample of SMEs, facilitating a thorough understanding of recruitment practices across diverse industries within the SME sector.

3.4 Study Instrument

The study utilized a structured questionnaire designed to capture various aspects of the recruitment and selection process. The questionnaire was developed based on a thorough review of existing literature and previous research on recruitment practices. It was divided into four main sections:

Part A: This section included 10 questions related to the respondent's background, including company size, industry type, and role within the company.

Part B: This section contained 24 questions addressing the key factors influencing recruitment, such as high qualifications, employability and benefits, the role of the government, expertise, and dependence on foreign workers. These questions aimed to gather detailed information on how these factors impact the selection process in SMEs.

Part C: This section comprised 4 questions focused on task performance, seeking to understand how different recruitment factors influence the effectiveness and efficiency of hired employees.

Part D: This section included 4 questions related to the moral values of local versus foreign workers, assessing traits such as competitiveness, responsibility, and work ethic.

A 5-point Likert scale was used to evaluate responses, ranging from "Strongly Disagree" to "Strongly Agree." This scale provided a quantitative measure of respondents' attitudes and perceptions regarding each aspect of the recruitment process.

3.5 Data Analysis

The collected data were analysed using Statistical Package for the Social Sciences (SPSS) version 26.0. The analysis involved both descriptive and inferential statistics. Descriptive Statistics: Frequency distributions and percentages were used to summarize the data and provide an overview of the recruitment practices and perceptions of SMEs.

Inferential Statistics: Correlation analysis, including the Cramer's V test, was employed to examine the relationships between different recruitment factors and task performance. This analysis helped in understanding how various elements, such as qualifications and employability, influence the effectiveness of the recruitment process.

3.6 Ethical Considerations

Ethical considerations were paramount throughout the study. Participants were informed about the purpose of the research, and their consent was obtained before data collection.

Confidentiality of respondents' information was ensured, and the data were anonymized to protect participants' identities.

3.7 Limitations

The study's limitations include the use of a single data collection point (the job fair) and a relatively small sample size. The findings may not be fully generalizable to all SMEs in Malaysia. Additionally, the reliance on self-reported data could introduce bias, as responses might reflect participants' perceptions rather than actual practices.

4.0 FINDINGS AND DISCUSSION

4.1 Demographic

The table 1 below presents an analysis of the demographic distribution of the respondents involved in this study.

Table 1: Respondent Information

| Profile | Frequency | Percentage |
|-----------------------------|-----------|------------|
| Position: | | |
| Director General (CEO, CFO) | 9 | 14.3 |
| vice president | 5 | 7.9 |
| Director | 11 | 17.5 |
| Manager/ Leader | 13 | 20.6 |
| Supervisor | 10 | 15.9 |
| Consultant | 15 | 23.8 |
| Level of education: | | |
| PhD/DBA | 4 | 6.3 |
| Degree | 10 | 15.9 |
| Degree | 8 | 12.7 |
| Diploma | 23 | 36.5 |
| Secondary school | 13 | 20.6 |
| Others (please state) | 3 | 4.8 |
| Professional certificate | 2 | 3.2 |
| Age: | | |
| 20-30 | 31 | 49.2 |
| 31-40 | 20 | 31.7 |
| 41-50 | 10 | 15.9 |
| 51-60 | 2 | 3.2 |
| Race: | | |
| Malay | 58 | 92.1 |
| Chinese | 1 | 1.6 |

| | | |
|-------|---|-----|
| India | 4 | 6.3 |
|-------|---|-----|

Years in Operation:

| | | |
|-----------------|----|------|
| 1-5 years | 29 | 46.0 |
| 6-10 years | 10 | 15.9 |
| 11-15 years | 10 | 15.9 |
| 16-20 years old | 4 | 6.3 |
| 21-25 years old | 4 | 6.3 |
| 26-30 years old | 6 | 9.5 |

| Profile | Frequency | Percentages |
|--|------------------|--------------------|
| Operational Location: | | |
| Kuala Lumpur | 32 | 50.8 |
| Selangor | 21 | 33.3 |
| Negeri Sembilan | 3 | 4.8 |
| Kelantan | 1 | 1.6 |
| Perak | 2 | 3.2 |
| Company category: | | |
| Small | 18 | 28.6 |
| Medium | 37 | 58.7 |
| Micro | 8 | 12.7 |
| Paid-up capital of the company: | | |
| RM0-RM100,000 | 25 | 39.7 |
| RM100,001-RM500,000 | 10 | 15.9 |
| RM500,001-RM1,000,000 | 10 | 15.9 |
| RM1,000,001-RM5,000,000 | 8 | 12.7 |
| RM5,000,001-RM10,000,000 | 5 | 7.9 |
| RM25,000,001- RM50,000,000 | 1 | 1.6 |
| RM50,000,001-RM100,000.00 | 3 | 4.8 |
| RM100,000,001 and above | 1 | 1.6 |
| Number of Employees | | |
| Less than 5 employees | 21 | 33.3 |
| 5-50 employees | 25 | 39.7 |
| 51-100 employees | 3 | 4.8 |
| 101-150 employees | 7 | 11.1 |
| 151-200 employees | 2 | 3.2 |
| 251 to 300 employees | 2 | 3.2 |
| More than 301 employees | 3 | 4.8 |
| MORAL VALUES: | | |
| Competitive | | |
| Foreign worker | 9 | 14.3 |
| Local worker | 54 | 85.7 |
| Good manners | | |
| Foreign worker | 6 | 10 |
| Local worker | 57 | 90 |

Initiative/own effort

| | | |
|----------------|----|------|
| Foreign worker | 11 | 17.5 |
| Local worker | 52 | 82.6 |

Hardworking

| | | |
|----------------|----|------|
| Foreign worker | 11 | 17.5 |
| Local worker | 52 | 82.6 |

Responsible

| | | |
|----------------|----|------|
| Foreign worker | 12 | 19.0 |
| Local worker | 51 | 81.0 |

Not easily discouraged

| | | |
|----------------|----|------|
| Foreign worker | 16 | 25.4 |
| Local worker | 47 | 74.6 |

Disciplined

| | | |
|----------------|----|------|
| Foreign worker | 12 | 19.0 |
| Local worker | 51 | 81.0 |

Being honest

| | | |
|----------------|----|------|
| Foreign worker | 12 | 19.0 |
| Local worker | 51 | 81.0 |

Tolerance

| | | |
|----------------|----|------|
| Foreign worker | 9 | 14.3 |
| Local worker | 54 | 85.7 |

Controlling Feelings/emotions.

| | | |
|----------------|----|------|
| Foreign worker | 10 | 15.9 |
| Local Worker | 53 | 84.1 |

4.2 Correlation Value

The application of Pearson's correlation analysis can reveal the relationship between employment factors affecting skilled and vocational graduates and their task performance. Various approaches have been selected to assess the influence of these factors on task performance in small and medium-sized enterprises (SMEs) in Malaysia. The factors considered include high qualifications, employability and benefits, the government's role, expertise, and reliance on foreign workers. The Pearson's Correlation Test was performed to derive the study's findings. Table 2 below is the Pearson Correlation table utilized to determine the relationship degrees between the evaluated factors.

Table 2: Description of Pearson's correlation value

| | |
|--------------------|-----------------------|
| Pearson Value 0.00 | (V) Correlation Stage |
| 0.8-1.00 | Very strong |
| 0.6-0.79 | Strong |

| | |
|----------|----------------|
| 0.4-0.59 | Moderate |
| 0.2-0.39 | Weak |
| 0.0-0.19 | Very weak |
| 0.00 | No correlation |

Source: (Chua, 2010)

Research Question

1. What are the hiring factors for graduates with technical and vocational skills qualifications in SMEs companies in Malaysia?

Table 3: Summary and results of correlation analysis

| Hypothesis 1: There is a positive relationship between employment relationships: a) i) high qualifications, ii) employability and benefits, iii) the role of the government, iv) expertise v) dependence on foreign workers b) Task performance | | |
|---|-------------------------------|--|
| Hypothesis | Result | With Task Performance <u>as the dependent variable</u> |
| H1a: High Qualification | ($r=.251^{**}n=63, p<0.01$) | Supported ($p<0.01$) |
| H1b: Employability and Benefits | ($r=.488^{**}n=63, p<.01$) | Supported ($p<0.01$) |
| H1c: The Role of Government | ($r=.351^{**}n=63, p<.01$) | Supported ($p<0.01$) |
| H1d: Expertise | ($r=.352^{**}n=63, p<.01$) | Supported ($p<0.01$) |
| H1e: Dependence on Foreign Workers | ($r=.301^{**}n=63, p<.01$) | Supported ($p<0.01$) |

Hypothesis 1: A positive relationship exists between employment factors: a) i) high qualifications, ii) employability and benefits, iii) the role of the government, iv) expertise, v) dependence on foreign workers and b) task performance.

Hypothesis 1a: High qualifications positively correlate with task performance. The analysis indicates a very weak positive correlation ($r=.251^{**}n=63, p<0.01$) between high graduation levels and task performance at the 0.01 significance level (2-tailed). Hence, Hypothesis 1a is accepted, suggesting that higher diploma qualifications and extensive college experience are significant criteria for employers during the hiring process. The significance level is 0.000, indicating a meaningful relationship between high graduation levels and task performance, with a positive correlation of 25.1%. This implies that as one variable

increases or decreases, the other does as well. **Hypothesis 1b:** Employability and benefits positively correlate with task performance. As indicated in Table 3, the r value for employability and benefits is ($r=.488^{**}n=63, p<.01$), exhibit the strongest relationship with task performance. Thus, Hypothesis 1b is supported, indicating that employability and benefits enhance job seekers' productivity through improved skills. Strategies include fair wage schemes, training and development initiatives, incentive programs, and various employee facilities. **Hypothesis 1c:** The role of the government positively correlates with task performance. According to Table 3, the r value for the role of the government is ($r=.351^{**}n=63, p<.01$), demonstrating a significant relationship with task performance in companies. The findings suggest that government initiatives can facilitate hiring among skilled and vocational graduates, through programs that connect potential employers with job seekers and state-level job search campaigns.

Hypothesis 1d: Expertise positively correlates with task performance. The analysis yields a positive correlation ($r=.352^{**}n=63, p<.01$) between expertise and task performance at the 0.01 significance level (2-tailed), indicating a weak correlation. Skilled workers with integrity, a strong educational background, and dedication are crucial for effective task performance.

Hypothesis 1e: Dependence on foreign workers positively correlates with task performance. The analysis exhibit a weak positive correlation ($r=.301^{**}n=63, p<.01$) between foreign worker dependence and task performance at the 0.01 significance level (2-tailed). Thus, Hypothesis 1e is accepted, suggesting that reliance on foreign workers is a key criterion for companies when hiring skilled and vocational graduates. The significance level is 0.000, indicating a notable relationship, with a 30.1% positive correlation, meaning variations in one variable affect the other. In this context, SMEs tend to hire foreign workers to enhance task performance.

Overall, the study's findings indicate that all examined factors significantly influence task performance in Malaysian SMEs. Relationships exist across high educational levels, employability and benefits, government involvement, expertise, and foreign worker dependency, highlighting areas that require attention to ensure quality employment processes in relevant industries. The influence of recruitment and selection methods on employee performance is emphasized, underscoring the significance of thorough hiring procedures for attaining elevated performance standards. Moreover this study investigate how efficient selection strategies in recruitment influence task performance, emphasizing that thoughtfully structured selection procedures are essential for enhancing job performance. **Hypothesis 1f:** Local workers possess higher moral values compared to foreign workers. Part D explores the moral values of foreign versus local workers. The findings reveal that local workers consistently rank higher in moral values, exceeding 70% across each measured value compared to foreign workers. This suggests that employers regard local employees as more capable of fulfilling job roles and

responsibilities. Motivated employees are essential to , and strong moral values contribute positively to employee identity.

5.0 CONCLUSION

The recruitment and selection of employees are critical functions within the company, essential for effective Human Resource Management. Without a robust recruitment and selection strategy, may encounter challenges such as poor job fit, low employee quality, and management issues. Employers can evaluate candidates based on clear guidelines regarding their qualifications. Additionally, the benefits offered by employers play a significant role in attracting and retaining skilled professionals. High qualifications, employability and benefits, the government's role, expertise, and reliance on foreign workers are identified as key elements in the recruitment process. In summary, the influence of employment factors on task performance among skilled and vocational graduates in Malaysia is moderate. Government intervention is necessary to develop targeted programs in collaboration with industry stakeholders. Respondents' perspectives can guide the identification of beneficial factors to enhance recruitment and selection processes. This strategy also aims to motivate graduates to prepare effectively for their professional careers. The MyFutureJobs program, administered by SOCSO, Skim Latihan 1Malaysia (SL1M), Malaysia Global Talent (MGT) Program, Program Pembangunan Usahawan (PBU), Career Advancement Programme (CAP) is an example of a Malaysian government initiative that supports job matching and career development. This program provides job seekers with access to training, career counseling, and a job matching platform, aligning with the study's focus on employability and government roles in enhancing recruitment and selection processes.

According to Rasiah & Ishak (2022) Malaysia depend on foreign workers due to lower wage costs and how local workers are perceived in terms of their capabilities and employment preferences. The government currently holds a low perception of local workers' capabilities to fill job vacancies, coupled with the lower wage costs associated with foreign workers, who are often less selective about their employment. Nevertheless, this current study indicates that local workers demonstrate greater competitiveness, discipline, and responsibility. Collaborative initiatives between the government and industry stakeholders are essential to prioritize local worker skills and devise action plans to enhance their employment opportunities, potentially reducing reliance on foreign workers (World Bank Group,2020).

Implementing more focused career initiatives can greatly upgrade the direct interactions between employers and job seekers at the district and state levels. These initiatives support lower recruitment expenses, broaden the scope of potential hiring areas, and offer a wealth of information, thereby enhancing the online recruitment process and making it more efficient and accessible for all parties involved. However, a pragmatic approach is required to establish a more effective platform for direct engagement with job seekers in skill and vocational sectors within Malaysia. For instance, practical interviews conducted during career fairs represent a valuable initiative to streamline the hiring selection process. For practical significance, recruiters and HR

Professionals could adopt the structured recruitment frameworks and tools that can significantly improve the efficiency of hiring processes. This approach encompasses the utilization of structured interviews, competency evaluations, and data-informed hiring methodologies to guarantee that candidates fulfil the necessary job qualifications. In addition, HR Professionals could create or suggest a structured recruitment toolkit that comprises templates for job descriptions, interview inquiries, and assessment criteria, thereby assisting HR professionals in making more informed hiring choices. Future researchers should provide frameworks for identifying effective employee selection methods that promote long-term retention within . This effort can assist in tackling human resource challenges. Effective human resource planning promotes sound recruitment and selection practices, potentially mitigating human resource issues.

Hiring and selecting employees is a vital function for successful human resource management. An efficient recruitment and selection strategy prevents several adverse outcomes. Implementing an e-Recruitment system can save significant time for employers by allowing them to review candidate profiles conveniently during the selection process. This enables a thorough examination of candidate qualifications without the need for manual form checks. However, this system may also attract a considerable number of unqualified candidates, complicating the selection process for employers.

The reliance on international labour was recognized as a crucial element in the recruitment process. For industry leaders, the findings indicate that sectors that significantly depend on foreign workers ought to consider strategies to diminish this reliance by focusing on the development of local talent. Industry leader could recommend collaborative efforts across the industry or partnerships with educational institutions to create talent pipelines that adequately equip local graduates for the workforce, thereby lessening the necessity for foreign labour. Local employees are regarded as possessing superior moral values, which could affect their appropriateness and appeal for positions that demand elevated ethical standards. Therefore, the should implement values-based evaluations during the recruitment process to guarantee that candidates are in harmony with the ethical standards of the company. Given that local employees are often regarded as proficient in this aspect, prioritize these characteristics when assessing prospective hires. The perceived enhanced ethical standards of local employees may warrant the implementation of varied compensation and benefits structures. Moreover, the company should provide customized benefits or incentives for local employees to recognize their elevated ethical standards and contributions. This approach can improve their job satisfaction and promote retention. Incorporate ethical conduct as a fundamental performance metric in employee assessments. Evaluate employees on their ability to embody and reflect the company's core values.

To conclude, it is crucial for company to enhance their recruitment and selection processes by implementing innovative strategies and leveraging technological advancements. This approach is vital for managing human resources effectively, improving job compatibility, and boosting overall performance. By tackling arduous linked to conventional and digital recruitment

techniques, and by promoting partnerships between government and industry participants, company can more effectively match candidates' skills with job demands. This alignment ultimately leads to a stronger and more efficient workforce.

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052-045

AN ASSESSMENT OF ENTREPRENEURSHIP EDUCATION ON THE TEKNOPUTRA ALUMNI SMEs WITH THE MEDIATOR ROLE OF ENTREPRENEURIAL ATTITUDE, GROUP DYNAMIC AND ENTREPRENEURIAL EMOTIONAL QUOTIENTS

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ABSTRACT

The study investigates the impact of entrepreneurship education on business intention among alumni of Teknoputra, Universiti Kuala Lumpur (UniKL). Data was collected from 333 alumni who applied for an integrated entrepreneurship development program, start-up, entrepreneurial internship placement, and student entrepreneurship association (Teknoputra, Universiti Kuala Lumpur (UniKL)). The study used the structural equation modelling software Smart-PLS (3.2.9) to analyze the data and results showed a significant positive relationship between entrepreneurship education and business intention, mediated by entrepreneurial attitude, group dynamic, and entrepreneurial emotional quotients. The study provides valuable insights for alumni in the higher education industry, emphasizing the importance of commitment, integrity, teamwork, innovation, and excellence in preparing graduates for success.

Keywords: Entrepreneurship Education, Entrepreneurial Attitude, Group Dynamic, Entrepreneurial Emotional Quotients, and Entrepreneurial Intention.

054-049

SOCIAL ENTERPRISE CREATION AND GROWTH IN RURAL COMMUNITIES FROM RESOURCE PERSPECTIVE

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ABSTRACT

Social enterprises (SEs) are globally emerging entities that provide social and economic value via innovative business practices. SEs have diverse objectives but often work to improve a particular community. However, the rise in the number of SEs creating and growing often results in many unsuccessful initiatives and business expansion failures caused by different barriers to achieving long-term growth and financial sustainability. Meanwhile, in rural communities, there are urgent social needs for more optimized access to funding and creative resource assembling for SE development. This study focuses on the SE growth problem in a rural community context, utilizing the Timmons model to conduct empirical research. This study collects survey data from 400 SEs engaged in rural community development in Hubei Province, China. This study presents the process of social enterprise creation from resource assembling perspective. It highlights the significant impact on SEs' growth in terms of both social value and economic value. This study broadens the application of commercial entrepreneurship theory to social entrepreneurship, focusing on research conducted in a rural community setting. It also enriches empirical studies that investigate the correlation between SEs' growth and the creation process, which impacts their performance.

Keywords: Social Entrepreneurship, Social Enterprise Creation, Social Enterprise Growth, Resource Assembling, Rural Community.

031-055

**THE IMPACT OF SELF-LEADERSHIP, SELF-EFFICACY, SELF-ACTUALIZATION
ON INNOVATIVE BEHAVIOR AMONG ENTREPRENEURSHIP EDUCATORS IN
MALAYSIAN HIGHER EDUCATION INSTITUTIONS WITH THE ROLE OF
MINDFULNESS AS A MEDIATOR**

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ABSTRACT

This study investigates the effect of self-leadership, self-efficacy, self-actualization on the innovative behavior of entrepreneur educators in Malaysian higher institutions. The mindfulness has been deployed as a mediator to test the current environment. Self-actualization emerged as a critical factor, as educators who strive for personal growth and fulfilment demonstrate higher levels of innovation. Self-leadership is the practice of intentionally influencing one's own thoughts, behaviors, and feelings to achieve personal and professional goals. It involves a set of strategies that individuals use to manage and direct themselves effectively, enhancing productivity, motivation, and well-being. This study deployed a quantitative research design where data were collected from 231 educators which reflected the responses rates of 81.6%. The analysis revealed that self-leadership and self-efficacy significantly enhance innovative behavior, indicating that educators who possess strong self-management skills and confidence in their abilities are more likely to engage in innovative practices. While self-efficacy is a concept that being introduced by psychologist Albert Bandura, emphasizing the role of confidence in one's capabilities to achieve goals and handle various situations. Based on the analysis deployed, mindfulness has shown positive result on mediating effects between self-leadership and self-actualization with innovative behavior, suggesting that present-moment awareness and non-judgmental attitudes contribute to creative and novel approaches in teaching. While on the other hands, the analysis reflected on not supported hypotheses between self-efficacy and innovative behavior with mindfulness as a mediator. These findings underscore the importance of fostering these psychological attributes among entrepreneur educators to promote innovation in educational settings. The study concludes with recommendations for higher education institutions to develop targeted interventions and training programs that enhance self-leadership, self-efficacy, self-actualization, and mindfulness among educators to drive innovative behavior.

Keywords: Mindfulness, Entrepreneurship Education, Self-Efficacy, Self-Actualization, Self-Leadership.

061-059

HUMAN RESOURCE MANAGEMENT AND INTERPERSONAL RELATIONSHIPS AFFECTING EMPLOYEE TURNOVER IN THE AUTOMOTIVE INDUSTRY IN CHINA

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ABSTRACT

As China's economy continues to grow at a rapid pace, the automotive industry has become an important pillar of the country's economic development. The significant contribution made by the automotive sector to China's economic growth has been well documented. However, like any other industry, the automotive industry is also facing the problem of staff turnover, which is a global phenomenon that threatens the achievement of strategic objectives. The purpose of this study is to identify the factors that affect employee turnover in the automotive industry in China. The underlying theories for this study are the Price-Muller model, Maslow's Hierarchy of Needs Theory, and the Two-Factor Theory. These three theories provide the theoretical basis for this study to explore the impact of human resource management and interpersonal relationships on employee turnover. This research adopts the use of positivism research philosophy to guide all the undertaking of the research data collection and analysis process. The questionnaire used in this research is given to a sample size of 460 people to obtain data. It is clear from this study that interpersonal relationships, and human resource management all have an impact on turnover. Overall, this study represents an important addition to the literature on employee turnover in enterprises. Its comprehensive approach, consideration of additional variables, and development of a theoretical framework make it a valuable resource for researchers and practitioners alike.

Keywords: Employee Turnover; Automotive Industry; Human Resource Management; Interpersonal Relationships.

062-060

PROPOSED MODEL ON DIGITALISATION OF FOOD AND BEVERAGES BUSINESS VENTURE FOR SMALL AND MEDIUM ENTERPRISES: MALAYSIA PERSPECTIVEKirankumar Sharanappa Ronad^{1*}, Nazatul Shima Abdul Rani², Nurbani Md Hassan³*UniKL Business School, Jln Gurney, Kampung Datuk Keramat, 54000 Kuala Lumpur, Wilayah Persekutuan Kuala Lumpur**Corresponding author: kirankumar.sharanappa@s.unikl.edu.my**ABSTRACT**

Small and medium-sized businesses (SMEs) and the food and beverage (F&B) sector are two of the major economic forces driving Malaysia's economic expansion. The majority of food and beverage operators were compelled to digitalize their operations as a result of COVID-19. Therefore, in order to further ensure the sustainability of this industry, the optimal framework and model have to be determined. The food and beverage (F&B) business is undergoing a rapid digital transition, which poses both complicated obstacles and huge potential for Malaysia's small and medium enterprises (SMEs). This paper highlighted the critical technology and non-technology factors influencing the digitalization of Food and Beverages SMEs in Malaysia. This paper forwarded the interplay between technology adoption, including online ordering systems, data management, and automation, and non-technology elements such as market competition, consumer behaviour, and regulatory frameworks. By analysing these dimensions, this research identifies best practices and strategic models for effective digitalization within the unique context of Malaysian food and beverage SMEs. The findings underscore the need for a balanced approach that considers both technological advancements and the broader operational environment. Key outcomes from a review of past literature suggest that while technological factors significantly enhance operational efficiency and customer engagement, non-technology factors play a crucial role in the successful integration and sustainability of these digital initiatives. The proposed model might be beneficial for policymakers and industry stakeholders in providing actionable insights to foster a supportive ecosystem for digital transformation. By bridging the gap between academic theory and practical application, this research aims to equip food and beverage SMEs with the strategic foresight required to thrive in the digital age.

Keywords: Digitalization, Food and Beverages Industry, Small and Medium Enterprises, Technology Adoption.

INTRODUCTION

The Food and Beverage (F&B) industry is a critical sector in Malaysia, contributing substantially to the country's GDP and employment. This industry encompasses a wide range of small and medium enterprises (SMEs) that are pivotal in providing diverse culinary experiences and fostering local economic growth. SMEs are the backbone of Malaysia's economy, accounting for 97.2% of total business establishments (Department of Statistics Malaysia, 2023). Specifically, the F&B industry employed approximately 833,000 people in 2023, and private final consumption expenditure on food and non-alcoholic beverages contributed to around 16.2% of the country's GDP, highlighting the sector's vital role in the economy (Statista, 2023).

In the face of rapid technological advancements and evolving consumer behaviors, F&B SMEs must embrace digitalization to stay competitive and meet market demands. Digital transformation in the F&B sector involves adopting various technologies such as online ordering systems, digital payment solutions, and data analytics tools. According to a 2023 report, businesses that adopted digital payment solutions saw a 30% increase in transaction volumes, indicating the significant impact of digital tools on business operations (Bank Negara Malaysia, 2023). These technologies can enhance operational efficiency, improve customer service, and enable businesses to better understand and respond to consumer preferences. However, the path to digitalization is filled with challenges, especially for SMEs that have limited resources and expertise.

In Malaysia, the push towards digitalization is also driven by government initiatives aimed at modernizing the economy and boosting SME productivity. Programs such as the SME Digitalisation Grant and the Prihatin Rakyat Economic Stimulus Package (PRIHATIN) are designed to provide financial aid and support for SMEs to adopt digital technologies (Ministry of Finance Malaysia, 2023). Despite these efforts, only 42% of SMEs in the F&B sector have fully integrated digital solutions into their operations, revealing the uneven uptake of digital transformation across the industry (SME Corporation Malaysia, 2023). Understanding the barriers and enablers of digitalization for F&B SMEs is essential for developing strategies that can help these businesses thrive in the digital age.

Despite the clear benefits of digitalization, many F&B SMEs in Malaysia struggle with the adoption and integration of digital technologies. The challenges are multifaceted and include both internal and external factors. Internally, SMEs often face financial constraints that limit their ability to invest in new technologies (Ng & Kee, 2021). They may also lack the technical skills needed to implement and manage digital tools effectively (Ismail, Khater, & Zaki, 2017).

Externally, the competitive pressure within the F&B industry forces SMEs to innovate, yet the fast pace of technological change can be overwhelming (Li & Wang, 2019). Additionally, SMEs must navigate complex regulatory requirements that can impede their digitalization efforts.

These regulatory hurdles include compliance with food safety standards and digital business regulations (Alam, Ali, & Ismail, 2020).

Therefore, this study aims to identify and analyze the key technology and non-technology factors influencing the digitalization of F&B SMEs in Malaysia and their impact on operational and strategic capabilities, while also developing a comprehensive framework for effective digitalization in the sector.

The focus of this research is F&B SMEs in Malaysia, which make up a significant portion of the country's economy, with the F&B industry alone contributing approximately 2.8% to the national GDP in 2022 (Malaysia External Trade Development Corporation, 2023). The study covers a spectrum of digital technologies such as e-commerce platforms, customer relationship management systems, and digital marketing tools. As of 2023, about 60% of Malaysian consumers preferred to engage with F&B businesses through digital channels, underscoring the growing consumer demand for digital interaction (NielsenIQ, 2023). This study examines these technologies' adoption and their impact on business performance, exploring both the strategic and operational dimensions of digital transformation.

The research also considers the broader context in which these businesses operate, including the regulatory environment, market dynamics, and consumer trends. For example, Malaysia's e-commerce market is expected to reach USD 13 billion by 2025, driven by the rapid adoption of digital technologies across various sectors (Statista, 2023). By providing a detailed analysis of these factors, the research aims to offer a comprehensive view of the digitalization landscape for F&B SMEs in Malaysia.

This study has significant implications for stakeholders in the F&B sector. For business owners and managers, it offers practical insights into overcoming digitalization challenges and integrating digital tools to improve operations (Li & Wang, 2019). Policymakers can use the findings to target areas for policy interventions like financial incentives and training programs (Mohamed et al., 2020). Additionally, the research informs technology providers and industry associations on how to create a supportive environment for SME digitalization (Azmi et al., 2021). By connecting academic research with real-world application, this study aims to help Malaysian F&B SMEs navigate digital transformation and achieve sustainable growth.

LITERATURE REVIEW

Overview F&B Sector in Malaysia

The Malaysian F&B sector is diverse and dynamic, characterized by a rich culinary heritage and a thriving tourism industry. Small and Medium Enterprises (SMEs) dominate this landscape, contributing significantly to both employment and GDP, with SMEs representing about 98.5% of total business establishments (Teng, 2022). This diversity, shaped by Malaysia's multicultural

environment, offers varied culinary experiences. However, the rapid pace of technological change, evolving consumer expectations, and the push toward digitalization, especially following the COVID-19 pandemic, present both opportunities and challenges. Many businesses have had to adopt technologies like online ordering systems and digital payments to stay competitive. Despite government support through initiatives like the SME Digitalisation Grant, many SMEs are still in the early stages of fully integrating digital solutions into their operations, making it crucial for businesses to overcome these barriers to enhance efficiency and sustain competitiveness in the market (Department of Statistics Malaysia 2023; Bank Negara Malaysia 2023; SME Corporation Malaysia 2023).

Digitalization

Digital transformation in the F&B industry encompasses the integration of technologies such as online ordering systems, data analytics, and automation. These innovations interactions enhance customer interactions, and provide valuable insights that inform strategic decisions. For Malaysian F&B SMEs, adopting these technologies is not merely about staying current; it is about transforming their business models to meet the demands of a digital economy (Mohamed et al., 2020; Ahmad et al., 2020). The move towards digital adoption is driven by the need for efficiency, customer satisfaction, and data-driven decision-making, which collectively foster a competitive edge in a rapidly evolving market landscape (Teece, 2020; Lee et al., 2021).

In the digital age, effective data management and security are paramount. Protecting sensitive customer information and ensuring the integrity of operational data are critical for maintaining trust and smooth business operations. F&B SMEs often grapple with the complexities and costs associated with implementing robust data management systems (Rahim & Saad, 2022; Chong et al., 2022). These challenges include securing digital transactions, safeguarding customer data against breaches, and complying with data protection regulations. As SMEs scale their digital capabilities, the need for reliable and secure data infrastructure becomes increasingly pressing (Azmi et al., 2021; Yusof et al., 2021).

Market competition in the F&B sector is intense, compelling businesses to continuously innovate and adopt digital solutions to retain and attract customers. SMEs must stay attuned to market trends and shifts in consumer behavior to develop and refine their digital strategies effectively (Sulaiman & Yusoff, 2021; Ahmad et al., 2020). Digital tools enable these businesses to enhance their market presence, optimize their supply chains, and offer personalized customer experiences (Teng, 2022; Tan et al., 2022). Understanding and leveraging these market dynamics are crucial for SMEs to maintain relevance and achieve sustained growth in a competitive environment (Lee et al., 2021; Zulkifli et al., 2023).

The regulatory environment significantly influences the digitalization journey of F&B SMEs. Government policies and regulations dictate various aspects of digital adoption, from data

protection and electronic transactions to food safety standards. For SMEs, navigating these regulations can be particularly challenging due to limited resources and expertise (Chong et al., 2022; Yusof et al., 2021). Compliance with these standards is essential to avoid legal pitfalls and to ensure smooth operational integration of digital technologies. Policymakers play a critical role in creating supportive frameworks that facilitate the digital transformation of SMEs while safeguarding public interests (Rahman et al., 2022; Tan et al., 2022).

F&B SMEs in Malaysia encounter numerous barriers to digitalization, which can be broadly categorized into financial, technical, and organizational challenges. Financial constraints often hinder their ability to invest in new technologies (Rahim & Saad, 2022; Rahman et al., 2022). Additionally, many SMEs lack the technical expertise required to effectively deploy and manage digital tools (Sulaiman & Yusoff, 2021). Organizational resistance to change further complicates the adoption process, as employees and management may be hesitant to transition from traditional practices to digital methods (Zulkifli et al., 2023; Tan et al., 2022). Overcoming these barriers necessitates a comprehensive approach that integrates both technological and non-technological strategies to foster a conducive environment for digital transformation (Ahmad et al., 2020; Zulkifli et al., 2023).

The theoretical underpinnings of this study are primarily drawn from the Resource-Based View (RBV) and Dynamic Capabilities theories. The RBV theory posits that a firm's resources and capabilities are crucial to achieving a competitive advantage (Teece, 2020; Rahim & Saad, 2022). In the context of digitalization, SMEs must leverage their unique resources, such as technological assets and human capital, to navigate the digital landscape effectively (Lee et al., 2021; Tan et al., 2022). Dynamic Capabilities theory further emphasizes the importance of an organization's ability to adapt and reconfigure its resources in response to changing environments. These theories provide a framework for understanding how F&B SMEs can strategically manage their resources and capabilities to thrive in a digital economy (Teece, 2020; Mohamed et al., 2020).

Technology Factors

Technology factors refer to the various technological innovations and tools that are pivotal in driving the digitalization of businesses. In the context of F&B SMEs, these factors include the adoption of e-commerce platforms, customer relationship management (CRM) systems, data analytics, and automation technologies (Azmi et al., 2021; Lee et al., 2021). These tools are crucial for enhancing operational efficiency, improving customer service, and enabling data-driven decision-making (Teng, 2022; Rahim & Saad, 2022). For example, the integration of online ordering systems and digital payment methods has been shown to significantly streamline operations and reduce transaction times (Sulaiman & Yusoff, 2021; Chong et al., 2022). Additionally, the use of data analytics provides valuable insights into consumer behavior, helping businesses to tailor their offerings and optimize their marketing strategies (Rahman et al., 2022; Zulkifli et al., 2023). Automation technologies, such as inventory management systems

and automated marketing tools, also play a critical role in reducing operational costs and improving overall business efficiency (Lee et al., 2021; Teng, 2022).

Non-Technology Factors

Non-technology factors encompass the external and internal influences that affect the digitalization process but are not directly related to technological tools. These include market competition, regulatory frameworks, organizational culture, and financial constraints (Chong et al., 2022; Azmi et al., 2021). Market competition often drives SMEs to adopt digital tools to stay competitive, while regulatory frameworks can either facilitate or hinder digital adoption depending on the policies in place (Yusof et al., 2021; Rahim & Saad, 2022). Organizational culture plays a crucial role in determining the success of digital initiatives, as resistance to change can significantly slow down the adoption process (Zulkifli et al., 2023; Rahman et al., 2022). Financial constraints, on the other hand, limit the ability of SMEs to invest in new technologies, which is a common challenge in the F&B sector (Ahmad et al., 2020; Sulaiman & Yusoff, 2021).

Strategic Growth & Digitalization

Strategic growth in the context of F&B SMEs refers to the long-term planning and development of the business, aimed at achieving sustained growth and competitiveness (Teece, 2020; Tan et al., 2022). Digitalization plays a critical role in enabling strategic growth by providing the tools and platforms necessary to expand market reach, enhance operational efficiency, and improve customer engagement (Mohamed et al., 2020; Teng, 2022). Through digital transformation, SMEs can develop new business models, enter new markets, and offer innovative products and services (Azmi et al., 2021; Lee et al., 2021). The strategic use of digital technologies allows businesses to scale efficiently, respond quickly to market changes, and maintain a competitive edge (Teece, 2020; Rahim & Saad, 2022). Moreover, digital tools like social media and digital marketing platforms enable SMEs to engage with a broader audience, enhancing brand visibility and customer loyalty (Azmi et al., 2021; Teng, 2022).

Theories: Resource-Based View (RBV) & Dynamic Capabilities (DC)

The Resource-Based View (RBV) theory posits that a firm's resources and capabilities are central to achieving and sustaining competitive advantage (Barney, 1991; Teece, 2020). In the context of digitalization, RBV suggests that SMEs must leverage their unique resources, such as technological assets, skilled personnel, and organizational knowledge, to navigate the digital landscape effectively (Teng, 2022; Lee et al., 2021). According to RBV, the ability to acquire, develop, and deploy these resources in a manner that differentiates the firm from its competitors is key to long-term success (Ambrosini & Bowman, 2009; Rahim & Saad, 2022).

Dynamic Capabilities (DC) theory, on the other hand, emphasizes an organization's ability to integrate, build, and reconfigure internal and external competences to address rapidly changing environments (Zahra et al., 2006; Teece, 2020). This theory is particularly relevant in the context of digitalization, where the pace of technological change requires firms to be agile and adaptable (Sulaiman & Yusoff, 2021; Zulkifli et al., 2023). Dynamic capabilities enable SMEs to not only react to changes in the market but also to anticipate and capitalize on new opportunities by continually evolving their processes and strategies (Teng, 2022; Ambrosini & Bowman, 2009). The interplay between RBV and DC theories provides a robust framework for understanding how SMEs can strategically manage their resources and capabilities to thrive in the digital economy (Lee et al., 2021; Rahman et al., 2022).

Relationship Between Technology Factors, Non-Technology Factors, Strategic Growth with Digitalisation of F&B SMEs

The technology factors, such as e-commerce platforms, point-of-sale systems, digital marketing tools, and cloud computing, significantly contribute to the strategic growth of F&B SMEs. This hypothesis is supported by research indicating that the adoption of digital technologies enhances operational efficiency, customer reach, and data-driven decision-making, which are critical for strategic growth (Aziz & Zainal, 2022; Ali & Ismail, 2022). For instance, the use of digital marketing tools and e-commerce platforms has been shown to expand market presence and improve customer engagement, driving growth (Alam et al., 2020; Lee et al., 2021). Additionally, cloud computing enables SMEs to optimize operations and reduce costs, further contributing to strategic growth (Ng & Kee, 2021; Tan et al., 2022).

Non-technology factors, including organizational culture, management practices, workforce skills, and market competition, play a crucial role in influencing the strategic growth of F&B SMEs. This hypothesis is based on the understanding that these factors shape how effectively technology is adopted and utilized within organizations (Cheah et al., 2017; Ambrosini & Bowman, 2009). A supportive organizational culture and effective management practices can foster innovation and adaptability, which are essential for leveraging technology for growth (Mohamed et al., 2020; Zahra et al., 2006). Additionally, workforce skills and human resource management are critical in ensuring that employees can effectively use new technologies, thus driving strategic growth (Rahim & Saad, 2022; Zulkifli et al., 2023).

Technology factors directly influence the digitalization process of F&B SMEs. This hypothesis is grounded in the idea that the adoption of digital technologies such as e-commerce platforms, online ordering systems, and mobile applications is fundamental to the digitalization efforts of businesses (Aziz & Zainal, 2022; Ng & Kee, 2021). Research shows that these technologies are not only enablers of digital transformation but also drivers of significant operational changes, leading to improved efficiency and customer satisfaction (Ali & Ismail, 2022; Ibrahim et al., 2023). The direct link between technology factors and digitalization highlights the critical role

that technological adoption plays in modernizing business operations and enhancing competitive advantage (Tan & Yeoh, 2023; Teece, 2020).

Non-technology factors significantly impact the digitalization process of F&B SMEs. This hypothesis suggests that factors such as organizational culture, management practices, and workforce skills are critical in determining how effectively digital technologies are implemented (Rahim & Saad, 2022; Mohamed et al., 2020). For example, a culture that promotes innovation and continuous improvement is more likely to embrace digitalization (Ng & Kee, 2021; Tan & Yeoh, 2023). Moreover, effective management practices and skilled employees are essential for navigating the complexities of digital transformation, making non-technology factors a key driver of successful digitalization (Zahra et al., 2006; Zulkifli et al., 2023).

Strategic growth positively influences digitalization efforts within F&B SMEs. As organizations experience strategic growth, they are better positioned to invest in digital technologies and infrastructure, which are essential for digital transformation (Sulaiman & Yusoff, 2021; Teece, 2020). Growth provides the necessary financial and managerial resources to support digitalization initiatives, enhancing the firm's ability to adopt and integrate new technologies (Azmi et al., 2021; Teng, 2022). Moreover, companies that have achieved growth are often more inclined to pursue further digital innovation to sustain their competitive advantage (Ali & Ismail, 2022; Ibrahim et al., 2023).

Moderating effects of technology and non-technology factors on the relationship between strategic growth and digitalization. These hypotheses are based on the understanding that the success of digitalization initiatives depends on the interaction between technological capabilities and non-technological enablers (Tan et al., 2022; Teece, 2020). While strategic growth can drive digitalization, the extent of this effect is contingent on the presence of advanced technology and a supportive organizational environment (Aziz & Zainal, 2022; Ibrahim et al., 2023). Therefore, technology and non-technology factors serve as moderators that can either amplify or diminish the impact of strategic growth on digitalization (Ng & Kee, 2021; Hussein et al., 2019). From the discussions, the following hypotheses are posited:

H1: The influence of Technology Factors (TF) on Strategic Growth (SG).

H2: The Influence of Non-Technology Factors (NTF) on Strategic Growth (SG).

H3: The Direct Impact of Technology Factors (TF) on Digitalization (D).

H4: The Direct Impact of Non-Technology Factors (NTF) on Digitalization (D).

H5: The Influence of Strategic Growth (SG) on Digitalization (D).

H6: Technology Factors (TF) Moderate the Relationship Between Strategic Growth (SG) and Digitalization (D).

H7: Non-Technology Factors (NTF) Moderate the Relationship Between Strategic Growth (SG) and Digitalization (D).

Below is the proposed conceptual framework for this study.

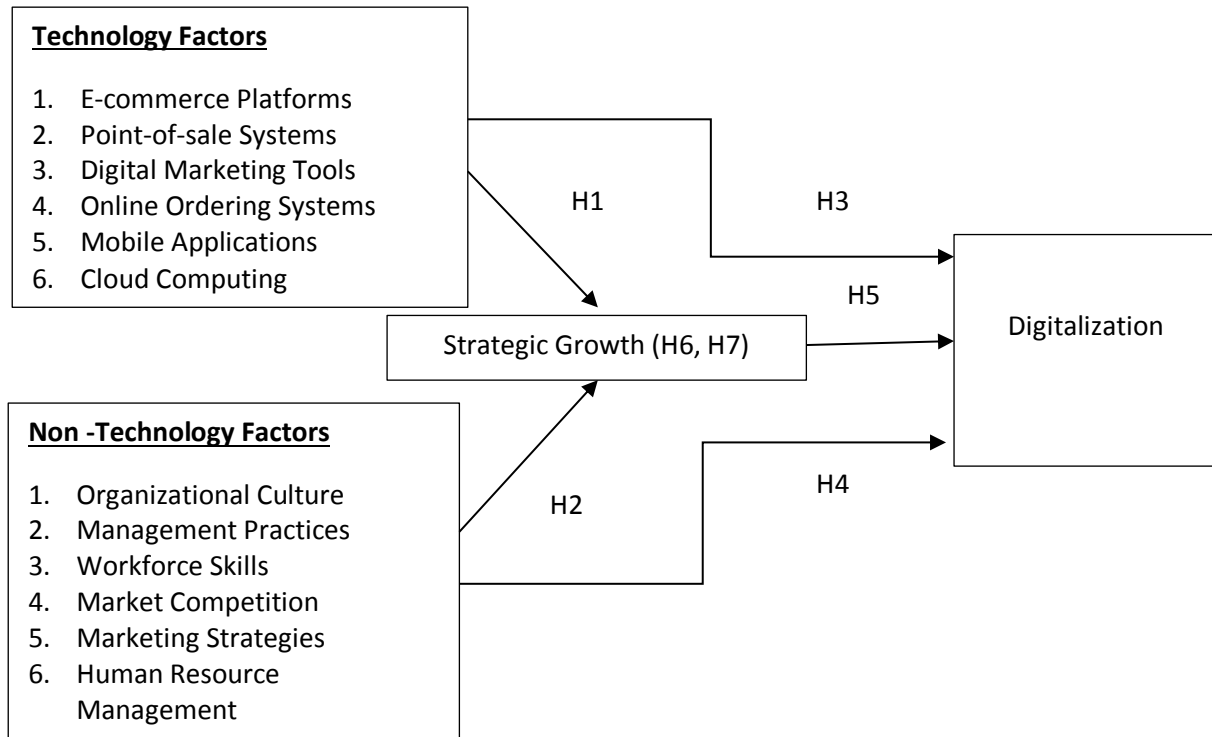


Figure 1. Conceptual Framework

METHODS

Research Framework

A mixed-methods research design is employed in this study, combining quantitative and qualitative approaches to provide a holistic view of the digitalization process. Quantitatively, the study utilizes Multi-Attribute Decision Making (MADM) techniques to evaluate and prioritize the factors influencing digitalization (Ishizaka & Labib, 2011; Velasquez & Hester, 2013). This is complemented by qualitative analysis using Decision Expert (DEXi), a tool that helps in modeling and interpreting complex decision-making scenarios (Bohanec et al., 2013; Zupan, 2015). The integration of these methods allows for a nuanced analysis of the data, capturing both statistical trends and in-depth perspectives from F&B SME stakeholders (Saunders et al., 2019; Bryman, 2016) (refer Figure 2).

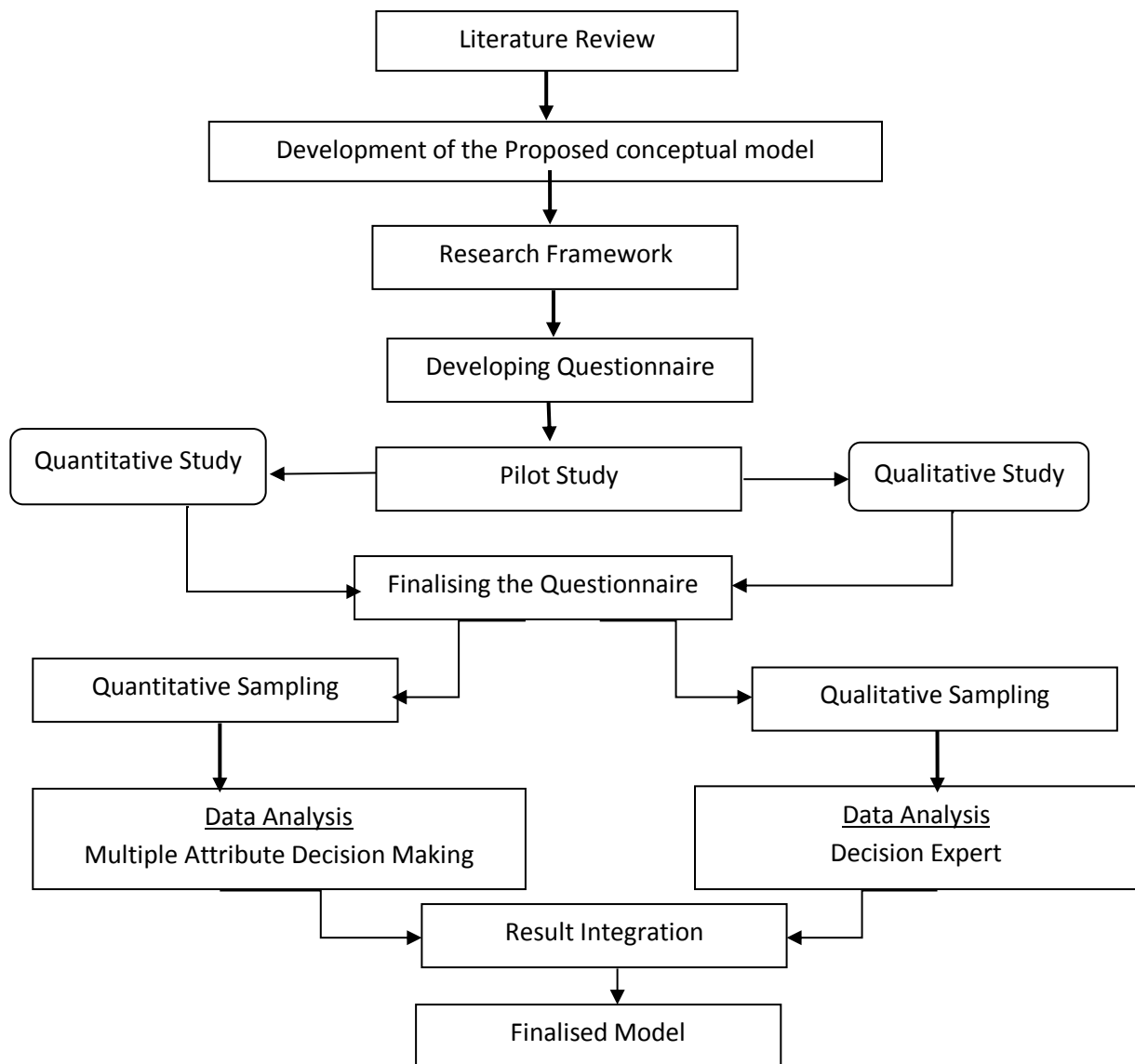


Figure 2. Proposed Research Framework

Key Components of the Proposed Conceptual Model

The following table 1, outlines the key components of the proposed conceptual model, categorizing the factors into technology factors, non-technology factors, and their relationship with strategic growth and digitalization.

Table 1: Key Components of the Proposed Conceptual Model for Digitalization in F&B SMEs

| Category | Factor | Proposed Model Points | References |
|--|---|---|---|
| Technology Factors | Online Ordering Systems | Enhances operational efficiency, reduces wait times, and provides valuable data for decision-making. | Aziz & Zainal (2022); Ibrahim et al. (2023) |
| | Data Management and Security | Critical for maintaining customer trust, ensuring regulatory compliance, and protecting sensitive information. | Ali & Ismail (2022); Hussein et al. (2019) |
| | Automation | Reduces manual errors, improves operational efficiency, and allows focus on strategic decision-making. | Lee & Ahmad (2023); Velasquez & Hester (2013) |
| Non-Technology Factors | Market Competition | Drives the adoption of digital tools to remain competitive and responsive to consumer demands. | Wong & Ahmad (2023); Kim & Kim (2017) |
| | Regulatory Frameworks | Compliance with regulations is essential for smooth digital transformation; supportive policies facilitate easier adoption. | Tan & Yeoh (2023); Hussein et al. (2019) |
| Strategic Growth & Digitalization | Strategic Agility and Technological Readiness | SMEs with strategic agility and readiness for technology adoption are better positioned to leverage digital transformation. | Burgelman (1991); Elia et al. (2021) |
| | Human Capital Development | Building digital competencies through training is essential for overcoming skill gaps and facilitating successful digitalization. | Elia et al. (2021); Cheah et al. (2017) |

The proposed conceptual model offers a practical framework for F&B SMEs in Malaysia to enhance digital capabilities by addressing both technological and non-technological aspects, supporting sustained growth in the digital economy.

DISCUSSION

This section discusses the anticipated results, and their implications based on the proposed model for digitalizing Food and Beverage (F&B) business ventures among Small and Medium Enterprises (SMEs) in Malaysia. The analysis integrates quantitative and qualitative approaches to provide a comprehensive understanding of the digitalization process, focusing on how various factors interact to influence the outcomes.

Quantitative Analysis

The quantitative analysis, employing Multi-Attribute Decision Making (MADM) techniques, is expected to identify and prioritize key technological and non-technological factors that significantly impact the digitalization of F&B SMEs. For instance, the implementation of online ordering systems is anticipated to be a critical factor in enhancing operational efficiency and customer satisfaction, as it streamlines ordering processes and reduces wait times (Aziz & Zainal, 2022; Ibrahim, Chong, & Ahmad, 2023). Moreover, robust data management and security measures are likely to be emphasized as essential for maintaining customer trust and ensuring compliance with regulatory frameworks (Ali & Ismail, 2022; Hussein, Rezaei, & Tavana, 2019).

Automation technologies, such as automated billing and inventory management systems, are also expected to be highlighted as key drivers of operational efficiency. These systems can reduce manual errors, allowing SMEs to allocate more resources towards strategic decision-making, which is crucial for maintaining competitiveness in a rapidly evolving market (Lee & Ahmad, 2023; Velasquez & Hester, 2013). The quantitative analysis will likely show that SMEs with higher levels of automation and data management capabilities are better positioned to navigate the challenges of digitalization and achieve sustainable growth.

Qualitative Insights

The qualitative analysis, derived from interviews and thematic analysis, is expected to provide deeper insights into the challenges and opportunities associated with digitalization from the perspective of F&B SME stakeholders. High costs associated with the initial investment in digital technologies are anticipated to be a significant barrier, particularly for smaller enterprises with limited financial resources (Aziz & Lee, 2022; Sulaiman & Yusoff, 2021). Additionally, the lack of technical expertise among SME owners and employees may emerge as a critical challenge, preventing these businesses from fully leveraging digital tools to enhance their operations (Cheah, Wong, & Tan, 2017; Elia, Margherita, & Passiante, 2021).

Resistance to change within the organization is also expected to be a significant hurdle, as management and staff may be reluctant to adopt new technologies due to fears of disrupting established workflows (Dana, 2001; Wong & Ahmad, 2023). Moreover, the qualitative analysis might highlight the importance of adapting to changing consumer behavior, particularly the shift towards online shopping and digital engagement, which drives the need for SMEs to adopt digital solutions to remain competitive (Kim & Kim, 2017; Tan & Yeoh, 2023).

Synthesis of Findings

By synthesizing the quantitative and qualitative findings, this study aims to present a holistic view of the digitalization landscape for F&B SMEs in Malaysia. The integration of these methods will likely reveal that SMEs with higher technological readiness—evidenced by the early adoption of advanced digital tools—are more successful in their digital transformation efforts (Burgelman, 1991; Saunders et al., 2019). Additionally, the findings are expected to underscore the importance of supportive regulatory environments in facilitating smooth digital transitions, with clear guidelines and policies playing a crucial role in helping SMEs navigate the complexities of digitalization (Hussein, Rezaei, & Tavana, 2019; Tan & Yeoh, 2023).

The study will also explore the role of human capital in the digitalization process, with findings likely indicating that the availability of skilled personnel is a critical factor in the successful implementation of digital technologies. Training and development programs designed to build digital competencies within SMEs may be identified as essential for overcoming the challenges associated with digital transformation (Elia, Margherita, & Passiante, 2021; Zupan, 2015).

In the final analysis, this study will combine insights derived from the Decision Expert (DEXi) tool with the Dynamic Capabilities (DC) theory to provide a comprehensive understanding of how SMEs can strategically manage their resources to achieve successful digital transformation. DEXi will be used to model and interpret complex decision-making scenarios, providing a nuanced analysis of the factors influencing digitalization. When integrated with the principles of Dynamic Capabilities, which emphasize an organization's ability to adapt and reconfigure resources in response to changing environments, the combined approach will offer practical recommendations for SMEs in the F&B sector to enhance their digital capabilities and sustain competitive advantage in the digital economy.

The proposed conceptual model for the digitalization of F&B SMEs in Malaysia integrates technological and non-technological factors, emphasizing their combined impact on strategic growth. Successful digital transformation is shown to depend not only on adopting advanced technologies but also on fostering a supportive organizational culture, responsive market strategies, and a conducive regulatory environment (Tan & Yeoh, 2023; Hussein, Rezaei, & Tavana, 2019). The integration of Decision Expert (DEXi) with Dynamic Capabilities (DC) theory highlights the importance of adaptability and strategic resource management (Elia, Margherita, & Passiante, 2021; Zupan, 2015).

Key factors influencing digitalization include technology adoption, such as online ordering systems and automation, which enhance operational efficiency, alongside market competition and regulatory frameworks that shape the digital transformation journey (Aziz & Zainal, 2022; Wong & Ahmad, 2023). The model suggests that SMEs with greater technological readiness and strategic agility are better equipped to capitalize on digital opportunities (Burgelman, 1991;

Saunders et al., 2019). Overall, the framework provides a holistic guide for SMEs to prioritize resources and strategies for effective digital transformation in the F&B sector.

CONCLUSION

This study proposes a comprehensive model for digitalizing Malaysian F&B SMEs, integrating both technological and non-technological factors. By using a mixed-methods approach that combines Multi-Attribute Decision Making (MADM) techniques with qualitative insights, it provides a holistic view of the digital transformation landscape (Azmi et al., 2021; Teng, 2022). Key factors like online ordering systems, data management, automation, market competition, and regulatory compliance are highlighted as crucial to the digitalization process (Aziz & Zainal, 2022; Ibrahim et al., 2023; Wong & Ahmad, 2023). The integration of the Decision Expert (DEXi) tool with Dynamic Capabilities (DC) theory offers a strong framework for SMEs to strategically manage resources and overcome digitalization challenges (Zupan, 2015; Teece, 2020). The study's conclusions aim to guide business owners and policymakers on effective strategies to support SMEs' digital transformation, fostering sustained growth and competitiveness in the digital economy (Hussein et al., 2019; Tan & Yeoh, 2023).

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070-068

MOTIVATION TO START BUSINESS AMONG URBAN POOR ENTREPRENEURS IN MALAYSIA: SELF-SATISFACTION, MONETARY SUCCESS AND NON-MONETARY SUCCESS

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ABSTRACT

Urban poor entrepreneurs face unique challenges and opportunities in pursuing economic activities. This study investigates the factors influencing the motivation to start a business among urban poor entrepreneurs in metropolitan cities. The common perception towards the urban poor is that they opted to do business because of monetary due to poorness. Entrepreneurial orientation of proactiveness, innovativeness, and risk-taking is posited to understand the factors influencing urban poor entrepreneurs to explore entrepreneurship from the monetary and non-monetary success perspective. A survey of quantitative approach was carried out among 140 urban poor entrepreneurs in metropolitan cities using purposive sampling. A purposive sampling was adopted to identify entrepreneurs from the community. The findings show that poor urban entrepreneurs, through entrepreneurial orientation, are strongly motivated to start a business for non-monetary gain over monetary. This further enhanced the notion that entrepreneurs from underprivileged communities prioritize non-monetary success over monetary success, contrasting the common perception. Entrepreneurial orientation showed a strong influence on motivation to start a business, but motivation to start a business does not influence monetary and non-monetary success. The findings are essential to understanding the urban poor entrepreneurs as the ultimate motivation is the non-monetary goal. The findings also affirmed that these entrepreneurs are happy to get involved in business, and entrepreneurship is not their last economic option. These findings are essential for policymakers to address closely in creating a conducive entrepreneurial ecosystem that supports the urban poor in gaining financial stability and reducing government dependability. Further recommendations and suggestions are provided.

Keywords: Urban Poor Entrepreneurship, Entrepreneurial Orientation, Motivation to Start a Business, Monetary Success, Non-Monetary Success.

072-072

THE INFLUENCE OF ORGANIZATIONAL CLIMATE, JOB INVOLVEMENT AND WORKPLACE INCIVILITY ON EMPLOYEE TURNOVER

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ABSTRACT

In reality, hospitality industry in Nigeria has experienced diverse challenges over the years as a result of employee turnover; the organization has also evolved in the way it relates to its employees and thereby ensuring decent working environment. The influence of organizational climate, job involvement and workplace incivility on employee turnover comes with a lot of procedures, policies, effective communication plans, good administrative measures and prompt responses in order to mitigate the effect of incivility on employees. The objectives are to examine the relationship between organizational climate and employee turnover, to examine the relationship between job involvement and employee turnover as well as to examine the relationship between workplace incivility and employee turnover. A quantitative research approach was used to collect research data through the responses of 136 participants with the help of Google forms, analysis was done using SPSS. Descriptive statistics, reliability test, regression analysis and hypothesis testing were test that was carried out on the research data. The research conclusion was that organizational climate and workplace incivility does not have any significant relationship on employee turnover. However, job involvement has a significant relationship on employee turnover. This research contributed practically and theoretically to the organizational psychology literature on organization commitment, job involvement, workplace incivility and turnover intention by demonstrating the relationships between these variables in respect to the related influence. It was believed that the study will encourage researchers to make further studies on workplace incivility and other interpersonal mistreatment behaviors. Though, there may be cutback on job involvement but management of a hospitality industry should reexamine their hiring and selection procedures in order to achieve viable employee personality.

Keywords: Organization, Workplace, Incivility, Employee, Turnover.

076-076

CRITICAL FACTORS FOR EFFECTIVE CHANGE MANAGEMENT OF BUSINESSES IN MALAYSIA: EMPLOYEE PERSPECTIVE

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ABSTRACT

Businesses today are encountering unprecedented levels of change. Adapting to change has become a fundamental aspect of standard business operations, and it is essential for businesses to evolve to stay competitive. The main objective of this paper is to identify the key factors for effective change management. This paper examines four factors, which are change leadership, employee engagement, communication, and employee commitment, for effective change management among businesses in Malaysia. The present study is based on four hypotheses that investigate the connections among change leadership, employee engagement, communication, and employee commitment to change management. Approximately two hundred (200) links of Google Forms surveys were sent out to employees, and 142 people answered the questions giving 71% response rate. The SPSS program was used to analyse the data. The reliability analysis results highlighted that all items with high Cronbach's Alpha between 0.858 to 1.000, whereby for leadership with 4 items ($\alpha=0.889$), employee engagement with 2 items ($\alpha=0.858$), communication with 2 items ($\alpha=1.000$), employee commitment with 3 items ($\alpha=1.000$), and effective change management with 2 items ($\alpha=1.000$). An analysis of Pearson correlation was performed to look at the connection between those elements and successful change management. The result of the analysis highlighted that there is a significant relationship between change leadership ($r = 1.000^{**}$; $p = 0.000$), communication ($r = 1.000^{**}$; $p = 0.000$), employee commitment ($r = 1.000^{**}$; $p = 0.000$), and employee engagement ($r = 0.947^{**}$; $p = 0.000$) with effective change management in any businesses. Therefore, all respondents agreed that all four factors are critical for effective change management to happen. In the future, more extensive literature review required to include more relevant items for each factor.

Keywords: Leadership, Communication, Commitment, Engagement, Change Management.

074-079

THE IMPACT OF WEBSITE QUALITY ON CUSTOMER LOYALTY IN THE E-COMMERCE INDUSTRY: A SMART-PLS ANALYSIS

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ABSTRACT

The advent of e-commerce has brought about a paradigm shift in consumer shopping behavior, with the COVID-19 pandemic serving as a catalyst for the industry's exponential growth and reshaping consumer habits. This study delves into the impact of website quality on customer loyalty and repeat purchase behavior within the e-commerce landscape. Specifically, the research examines the influence of website design, information quality, and security and privacy on customer satisfaction. Utilizing Smart-PLS 4 for data analysis, the study reveals a significant positive correlation between these three factors and customer satisfaction. By prioritizing these aspects, businesses can cultivate a seamless and gratifying online shopping environment, fostering enhanced customer loyalty and revenue generation. In essence, e-commerce presents entrepreneurs with a potent arsenal, empowering them to compete on a level playing field with larger enterprises and carve out a distinctive presence in the market.

Keywords: E-business, Website Design, Information Quality.

074-081

AN ANALYSIS OF THE IMPACT OF BUY NOW PAY LATER SERVICES ON CONSUMER BEHAVIOR

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ABSTRACT

Buy Now, Pay Later (BNPL) services have become popular, especially among younger consumers, providing a convenient way to finance purchases over time without interest. These services allow customers to make fixed, interest-free payments over a few weeks or months, with an initial down payment. While timely payments have minimal impact on credit scores, late payments or defaults can have negative consequences. To choose the right BNPL provider, companies need to assess repayment terms, credit limits, and customer location. Merchants benefit from increased sales and conversions, but customers should be wary of late fees and potential credit implications if payments are not made promptly.

Keywords: Buy Now, Pay Later (BNPL), E-Commerce, Consumer Behavior, Financial Literacy.

083-092

**ANALYSIS OF FACTORS AFFECTING COMPETITIVE ADVANTAGE AT THE
MSMES BUSINESS INCUBATOR (CASE STUDY AT THE CENTER FOR
INTEGRATED SERVICES SMALL AND MEDIUM ENTERPRISES AND
COOPERATIVES - CIS SMESCO)**

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ABSTRACT

This study examines the factors that influence competitive advantage in the context of MSME (Micro, Small, and Medium Enterprises) business incubators at the Center for Integrated Services Small and Medium Enterprises and Cooperatives (CIS SMESCO) or Pusat Layanan Usaha Terpadu Koperasi dan Usaha Mikro, Kecil dan Menengah (PLUT KUMKM) in South Sulawesi Province, Indonesia. This study aims to identify significant variables such as institutional leadership, consultant competence, digital literacy, community empowerment, and government support, and their impact on the competitiveness of CIS SMESCO/PLUT KUMKM in serving cooperatives and MSMEs. This study used a rigorous quantitative approach. Questionnaires were distributed manually and online to collect primary data from consultants, managers, and businesses that receive services from CIS SMESCO/PLUT KUMKM. Secondary data was obtained from a comprehensive literature review of relevant books, journals, and online sources. The data were then analyzed using Structural Equation Modeling (SEM), a robust statistical method, to evaluate the relationship between independent and dependent variables. In conclusion, institutional leadership, consultant competency, digital literacy, and government support are important factors in improving CIS SMESCO/PLUT KUMKM's competitive advantage, with community empowerment and government support as mediating variables that strengthen the impact of these factors.

Keywords: Incubation, Competitive Advantage, MSMEs, CIS SMESCO.

082-093

EXPLORING SOCIAL VALUES IN THE MULTIFACETED NATURE OF THE ENTREPRENEURSHIP ECOSYSTEM

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ABSTRACT

This conceptual study explores social values generated from the multifaceted processes in the entrepreneurship ecosystem. Entrepreneurship, traditionally examined through economic and innovative actions, also encompasses significant social dimensions that influence its dynamics. This study synthesizes existing literature on entrepreneurship to highlight how social values is shaped and shaping the entrepreneurial ecosystem, impacting both individual entrepreneurs and the broader socio-economic landscape. This study discusses the theories of entrepreneurship, emphasizing the diversity and adaptability of entrepreneurial attributes. It also examines risk-taking, innovation, and the dichotomy of opportunity-driven versus necessity-driven entrepreneurship, identifying how these elements are influenced by underlying social values. By integrating perspectives from seminal works and contemporary scholars, this study presents a holistic view of entrepreneurship as a dynamic system where social values are pivotal. Furthermore, the study also categorizes entrepreneurial outcomes into productive, unproductive, and destructive, while clarifying the role of social values in determining these outcomes. Productive entrepreneurship, driven by positive social values, fosters innovation, economic growth, and societal well-being. Conversely, unproductive and destructive entrepreneurship, often rooted in adverse social values, can lead to economic inefficiencies and social detriment. Subsequently, this study concludes by advocating for a comprehensive approach to studying entrepreneurship, incorporating social values as a critical component. It also offers insights into the vital role of social values in shaping entrepreneurial ecosystems, enhancing more effective policy and ultimately influencing the socio-economic development.

Keywords: Social Values, Entrepreneurship Ecosystem, Entrepreneurial Outcomes.

085-095

THE INFLUENCE OF COMMUNICATION PRACTICES AND CONTINGENCIES ON BUSINESS PERFORMANCE: AN EXPLORATORY STUDY

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ABSTRACT

The COVID-19 pandemic has fundamentally altered workplace dynamics, necessitating a re-evaluation of communication practices and their impact on business performance. This study investigates the relationship between communication practices (CP), communication contingencies (CC), and overall business performance (BP) within a banking context, utilising an online survey distributed via WhatsApp to collect data from 31 employees, yielding a response rate of 62%. The survey assessed BP with seven items ($\alpha=0.855$), CP with twenty items ($\alpha=0.907$), and CC with nine items ($\alpha=0.938$), all demonstrating high reliability. The analysis employed correlation analysis to explore relationships between variables, alongside descriptive statistics and reliability analysis to ensure data consistency. Findings revealed a strong connection between CC and CP, as well as a moderate relationship between these factors and BP, suggesting that effective communication practices, influenced by situational contingencies, can enhance business performance. Despite the exploratory nature of the study and its limited sample size, the results underscore the importance of adaptive communication strategies in navigating the complexities of a post-COVID environment. Further research with a larger sample is recommended to validate these insights, highlighting the critical interplay between communication practices and business performance for organizations striving to maintain resilience and adaptability amid ongoing challenges.

Keywords: Communication, Contingencies, Practices, Business, Performance.

098-109

**THE INFLUENCE OF FINANCIAL TRANSPARENCY, CORPORATE SOCIAL
RESPONSIBILITY TRANSPARENCY AND CORPORATE GOVERNANCE
TRANSPARENCY ON THE PERFORMANCE OF PUBLIC LISTED COMPANIES IN
MALAYSIA**

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ABSTRACT

Corporate transparency and business performance are highly correlated, and public listed companies (PLC) with excellent corporate governance have very high standards for the disclosure of key information and their own transparency. The purpose of this study is to investigate the connections between corporate governance, CSR, and financial transparency as they relate to firm performance. The Manager in PLC in Malaysia is the primary respondent in this study. By disseminating the questionnaire that the researcher created via Google Form, the quantitative research approach is being applied. The Manager in PLC in Malaysia has received a total of 243 samples of questionnaires. Version 29 of the Statistical Package for the Social

Sciences (SPSS) software was used to assess the data's significance. The findings indicate that every element has a considerable impact on the firm's performance. The organisational structure must therefore be given priority in order to enhance company performance at the workplace while also increasing understanding of financial transparency.

Keywords: Financial Transparency, Corporate Social Responsibility Transparency, Corporate Governance Transparency, Firm Performance, Public Listed Companies.

071-110

FACTORS AFFECTING ENTREPRENEURIAL INTENTION AMONG MALAYSIAN BUSINESS STUDENTS

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ABSTRACT

This study examines the factors affecting entrepreneurial intention among Malaysian business students, focusing on five key independent variables: Attitude, Subjective Norm, Risk-Taking Propensity, Perceived Behavioral Control, and Perceived Lack of Support. The dependent variable is Entrepreneurial Intention. Using a quantitative research design, data were collected through structured questionnaires administered to business students at UNIKL and MAHSA. The data were analyzed using SPSS software with linear regression tests to evaluate the impact of these factors on entrepreneurial intention.

Guided by the Theory of Planned Behavior, the analysis aims to identify how these factors interact and influence students' intentions to pursue entrepreneurial careers. The findings suggest that Attitude and Perceived Behavioral Control significantly predict entrepreneurial intention, while Risk-Taking Propensity and Subjective Norm also play notable roles. Conversely, Perceived Lack of Support negatively impacts entrepreneurial intentions. These insights highlight the importance of fostering a supportive environment and positive attitudes toward entrepreneurship among students.

This research provides valuable implications for educators and policymakers in promoting entrepreneurial activities and economic growth in Malaysia. The study underscores the need for targeted training programs within academic institutions to enhance students' entrepreneurial skills and intentions, thereby encouraging new business ventures and contributing to economic development. Additionally, the results contribute to the Theory of Planned Behavior by elucidating how psychological and sociocultural factors influence entrepreneurial intention among Malaysian business students.

Keywords: Entrepreneur, Entrepreneurial Intention, Attitude, Subjective Norm, Risk-Taking Propensity, Perceived Behavioral Control, Perceived Lack of Support, Malaysian Business Students.

099-111

THE RELATIONSHIP OF TRANSFORMATIONAL LEADERSHIP, TRANSPARENT COMMUNICATION, ORGANIZATIONAL TRUST, AND ORGANISATIONAL OPENNES TO CHANGE AMIDST CHANGE EVENTS: MALAYSIAN PERSPECTIVE

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ABSTRACT

Malaysia is renowned for having a workforce that is diversified and for having a mix of local and multinational businesses that are all vying for market share on a global scale. This study will investigate the relationship between employee openness to change and transformational leadership and transparent communication, with the role of a mediator namely organizational trust, thereby providing more valuable insights to help Malaysian organisations meet success during change events when employees' preparedness plays a vital role. This study specifically uses idealised influence, inspirational motivation, individualised consideration, and intellectual stimulation as transformational leadership traits, whereas transparent communication is assessed using participation, sustainability, and accountability a measure taken from earlier research. By modifying the Social Exchange Theory's viewpoint, which can help forecast the actions of employees. An online survey was used to gather data from a postgraduate department of a chosen higher education institution in Malaysia and about 95 employees responded to the survey. To ensure that the items are valid, reliable, and address the hypotheses, the data will be analyzed using the Statistical Package for Social Science (SPSS) and SmartPLS (version 4) software. The results from analysis indicated that there are relationships between transformational leadership with organizational trust and organizational openness to change. In addition, there are also relationships between transparent communication with organizational trust and organizational openness to change. However, most of the respondents do not perceive there is any relationship between organizational trust and organizational openness to change, therefore organizational trust does not mediate any relationship between organizational leadership and transparent communication with organizational openness to change.

Keywords: Transformational Leadership, Transparent Communication, Organizational Trust, Openness, Change.

ENVIRONMENTAL KNOWLEDGE AND CONCERN IN DETERMINING STUDENTS' PURCHASE INTENTION TOWARD ECO-FRIENDLY CLEANING PRODUCTS

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ABSTRACT

Eco-friendly household cleaning products are one of the sustainable products that could reduce the consequences of conventional cleaning products towards our society and environment as it is produced with sustainable ingredients. With that, this study investigated the factors that influence university students to purchase eco-friendly cleaning products through an extended theory of planned behaviour (TPB) model. Environmental knowledge and environmental concerns were included in the TPB to develop the research framework of the study. Through the purposive sampling, 155 university students in Sarawak participated in the study and these responses were analysed by using the partial least square structural equation modelling (PLS-SEM) and also importance-performance map analysis (IPMA). The result first showed that attitude, subjective norm, environmental knowledge and environmental concern have a positively significant influence on purchase intention. However, an insignificant effect is found for perceived behavioural control. Besides, the IPMA's finding further showed that the improvement plan should be concentrated on environmental knowledge and subjective norms as their current performance is not compatible with their importance level. These findings are contributed to the literature and are also practical as they provide new shred evidence on the subject matter. Moreover, stakeholders could utilize the study's findings to formulate strategies that may further increase the purchase intention of these sustainable products.

Keywords: Eco-Friendly Cleaning Products, Environmental Knowledge, Environmental Concern, Theory of Planned Behaviour.

104-115

NAVIGATING ENTREPRENEURIAL SUCCESS: HOW PERSONAL CHARACTERISTICS SHAPE GROWTH AMBITIONS IN MARA GRADUATES' MICRO-ENTERPRISES

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ABSTRACT

Entrepreneurship among graduates, particularly in the context of micro-enterprises, significantly contributes to Malaysia's economic landscape by fostering innovation, challenging traditional business models, and addressing societal issues. This study examines the factors influencing growth intentions among MARA graduates, with a specific focus on personal attributes. Utilizing a structured quantitative research approach, data was collected from 152 business graduates through an online survey. The findings highlight that personal characteristic, such as gender, education, and managerial competencies, play a crucial role in shaping growth intentions. The study's results underscore the importance of addressing gender disparities and promoting educational opportunities to foster a more inclusive entrepreneurial environment. Additionally, the role of managerial competencies, including industry knowledge and start-up experience, is critical in identifying and seizing growth opportunities. The study concludes by emphasizing the complex interplay between personal characteristics, individual motivations, and external factors, advocating for tailored support programs and policies to empower graduate entrepreneurs and drive economic growth in Malaysia.

108-121

ADVANCING TECHNOLOGY ADOPTION IN AGRO-FOOD ENTREPRENEURSHIP: A BIBLIOMETRIC ANALYSIS AND FUTURE RESEARCH DIRECTIONS

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ABSTRACT

This study provides a comprehensive review of the literature on technology adoption within the agro-food entrepreneurial sector, utilizing a bibliometric approach to analyze publications from 2010 to 2023. Leveraging the Scopus database, focusing on their thematic content, annual publication trends, geographic distribution, and author contributions. The analysis highlights key areas of research, delineates contributions by country, and identifies the most influential authors in the field. Using VOSviewer, a visual analysis was conducted to explore the co-occurrence of keywords and citation patterns, revealing significant trends and clusters in the existing literature. Our findings indicate a growing interest in the intersection of technology and agro-food entrepreneurship, driven by advancements in agricultural technology, supply chain optimization, and sustainable practices. The bibliometric analysis uncovers dominant research themes, including the implementation of digital tools, the role of innovation in enhancing productivity, and the impact of technology on food safety and quality. Moreover, this study identifies critical gaps and proposes a future research agenda aimed at addressing these gaps. Key areas for further investigation include the integration of blockchain technology in agro-food supply chains, the adoption of IoT and AI for precision farming, and the role of technology in supporting small-scale agro-food entrepreneurs in developing regions. By outlining these future research directions, this study aims to contribute to the ongoing discourse on technology adoption in the agro-food sector and to support the development of innovative solutions that can enhance the efficiency, sustainability, and competitiveness of agro-food enterprises.

Keywords: Technology Adoption, Agro-Food, Entrepreneurship, Supply Chain, Innovation.

112-124

IMPROVING THE ENTREPRENEURIAL INTENTIONS OF WOMEN IN MALAYSIA: A CONCEPTUAL FRAMEWORK

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ABSTRACT

Women's entrepreneurship has gained recognition as a crucial catalyst for economic growth, job generation, and social progress in recent years. This change aligns with the United Nations' Sustainable Development Goals (SDGs), particularly SDG 5, which advocates for women's economic empowerment and involvement in leadership positions. The paper develops a framework that investigates the theoretical analysis of the elements that impact women's intentions to start their businesses in Malaysia. This conceptual framework addresses the existing literature gap by presenting a comprehensive framework for understanding these intentions. According to research, there is a strong correlation between entrepreneurial ambitions and the theory of planned behaviour in the literature. Nevertheless, the investigation of its influence on push-pull variables, namely the mediating function of mooring factors on women's entrepreneurial inclinations, is lacking. The research improves understanding of the theoretical framework for women's entrepreneurial behaviour and intention in Malaysia by using socio-cultural and opportunity-driven factors as proxy variables. To summarise, the results of this study emphasise the significance of the elements that influence women's ambitions to become entrepreneurs. Furthermore, it emphasises the pivotal role of the audience in future research and policy interventions, which may enhance the influence of female entrepreneurs on economic and social progress, thereby contributing to the strategic objective of SDG 5.

Keywords: Women's Entrepreneurship, Entrepreneurial Intentions, Theory of Planned Behaviour, United Nation, SDG5.

121-135

"BUILDING RESEARCH MODEL AND HYPOTHESIS DEVELOPMENT FOR RELATION BETWEEN TVET TRAITS AND ENTREPRENEURIAL INTENTION: INSIGHTS FROM LITERATURE"

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ABSTRACT

This study aims to evaluate the influence of technical and management skills on entrepreneurial characteristics and how these skills mediate entrepreneurial intention among the alumni of a TVET institute. The study is grounded in human capital and resource-based theories, which together suggest that holistic development of technical, management, and entrepreneurial skills equips individuals with entrepreneurial success. The first part of the research examines how these skills, developed during diploma studies, contribute to entrepreneurial characteristics, while the second part employs the theory of planned behaviour to assess entrepreneurial intention. Previous research on TVET institutes and varying educational levels has revealed that technical skills alone are insufficient to explain the variations in entrepreneurial characteristics. This discrepancy may be attributed to sampling issues, such as participants who had not completed their technical modules, or those drawn from different institutions with varying curricula. By incorporating the experimental learning theory (ELT) and project-based learning (PBL) which drawn from the theories of human capital, resource-based and theory of planned behaviour (TPB). An improved version of TVET-Entrepreneur framework model with practical approach (curriculum mapping) from the literature review finding was constructed. This approach will help assess the effectiveness of current TVET modules in fostering entrepreneurial aspirations among TVET alumni in future research.

Keywords: Abstract, Human Capital & Resource-Based Theories, TVET Institute, Theory of Planned Behaviour, Entrepreneurial Intention.

1. INTRODUCTION

Technical and Vocational Education Training (TVET) phenomenon occurs worldwide, although the focus of its impact is different. Vocational training and labour market outcomes in the Philippines (Vandenberg & Laranjo, 2021) showed a deferential wage in TVET graduates from secondary school and tertiary education, even though it is counterintuitive in wages in the labour market. In Ethiopia, there is a lack of support for TVET colleges with human and nonhuman resources and reluctance of industries to cooperate, hindering the development of TVET in the country which results in socio-economic consequences (Gebremeskel, 2023). In short, TVET has become a focal issue discussed by countries worldwide. In Malaysia, the government nowadays emphasises the development of TVET for Sijil Pelajaran Malaysia (SPM) leavers in secondary education toward tertiary education such as Diplomas, Foundation, or Matriculation, and Form 6, Sijil Pelajaran Tinggi Malaysia (STPM) for future national development prospects. This can be seen in the latest news quoted from the Deputy Prime Minister, Ahmad Zahid Hamidi statement: with expertise and knowledgeable workers, we can increase productivity and bring innovation in all economic sectors (Bernama, 2024). In addition, the Malaysian government allocated RM8.6 billion to TVET development in 2024 (Free Malaysia Today, 2024). The government has also come out with specific eight (8) strategies in TVET policy named “*Dasar TVET Negara 2030*”, to further help and take control of national development. It revolves around technical, management, and entrepreneurial skills (MAJLIS TVET NEGARA, 2024). TVET will soon drive economic growth through educational institutions and industrial relations to build their management skills and professional networks. As they become more mature and seniors in the industry, entrepreneurship will be an attractive and creative job for future generations. Entrepreneurship acts as a catalyst to stimulate economic growth, poverty reduction, and sustainable development, thus reducing the poverty rate which has a positive impact on a nation’s economy (Nnamani, Onyia, & Nnamani, 2021). This is important for skilled employees to drive Malaysia’s future economics, as they can create jobs, reduce the inequality gap between the rich and the poor, reduce dependency on foreign workers, and stabilise the currency exchange rate. As the TVET graduates honed their hard and soft skills, gaining experience, and becoming experts in their own field of work, the opportunity to become an entrepreneur will be attractive to them. This adds value to the business chain and drives economic growth in the near future. This study provides insights from the literature or past research to construct, if not new, an improved version of the framework in the TVET area as an independent variable and how it affects entrepreneur skills and intention to be one. In this study, we divided the research framework into two (2) parts. First, the first part revolved around TVET traits; Technical, Management and how it related to the Entrepreneur itself, where the theories underlying are human capital and resource based. To make it more meaningful and have an impact, we couple the first part of the framework with the second part, entrepreneurial intention, where the theory of planned behaviour is the driver. The purpose of this study, is to develop a hypothesis with

alteration on the sampling method, thus developed a new or improved TVET Traits – Entrepreneurial Intention Model from the insight of literature review.

2. BUILDING RESEARCH MODEL AND HYPOTHESIS DEVELOPMENT

2.1 Underlying theories

2.1.1 Human Capital & Resources-Based Theories

Research has found a positive relationship between human capital and organizational performance. There are two (2) principal ideas such as Context-Generic and Context-Specific Human Capital of individuals that can be measured by the dimensions such as “value”, “rareness” and “inimitability” (Fernando, Yusoff, Khatibi, & Azam, 2019). The generic element was cultivated through a training and development approach by embedding core beliefs and policies aimed at achieving both individual and organizational goals. In contrast, the specific element focuses on individuals enhancing their competencies and skills, thereby providing a competitive edge and serving as a “profit lever” for the organisation, making them indispensable. Additionally quoted, *“This shows that human capital is also known as knowledge capital comprises of the intangible abilities and skills of the workers”* (Dom & Ahmad, 2022). Human capital encompasses employees' knowledge, skills, and abilities which transcend tangible skills and contribute to the well-being of individuals in an organisation. The intellectual resources as a resource-based theory and dynamic capabilities are crucial driver of sustainable competitive advantage (Khalique, Khan, Hasan, Khajuria, & Saini, 2023). Human capital theory emphasises the technical and management skills (hard and soft skills) of individuals which spur organisational performance and sustain economic downturns for organisations and survival, which eventually brings us to the resource-based theory related to entrepreneurial elements such as resilience. Additionally, a study using the resource-based theory perspective concludes finding as promising feedback from workshops after undergoing the authors’ instructional model framework, as it boosts entrepreneurial self-esteem and resilience using available resources (Carriker & Mayo, 2021). Human capital, such as technical and management skills/skills which drive the performance of an organisation, can also be found in the entrepreneurial area and can be integrated into the TVET module or curricula with practical approaches such as industrial training.

2.1.2 Theory of Planned Behaviour

According to a finding, theory of planned behaviour (TPB) provides a framework to increase understanding of and predict career sector intentions (Feakes, et al., 2019). Moreover, the TPB suggests relevant practical insights to design positive behaviour change interventions supporting employee adaptive job crafting behaviours

(Costantini, Ceschi, & Sartori, 2019). Career crafting can be done if a framework builds to nurture entrepreneurial intention, was done at the first place by incorporating the entrepreneur element in the TVET module. Another study showed that development contracts have the highest mediating effects between internship satisfaction and career identity behaviour which improves career sustainability and assists organisations in managing human resource mobility (Feng, Zhang, Zeng, & Liu, 2023). The latest research findings related to TVET entrepreneurs' high success rate focus on self-efficacy as the student optimising career plans which suitable to the personality, beliefs, and self-motivation of the entrepreneur (Muridan, et al., 2023). In tourism and hospitality industry, experiential learning activities (practical and internships) is important to expose student to the challenge and finding solution as TPB indicate the important of environmental factors play role in entrepreneurial intention (Sedegah, et al., 2024). As both theories are established for previous research with proven empirical evidence, this study will use them as guidelines for developing the hypotheses in the next section.

2.2 TVET skills

The table below was extracted from the study by Odewole (2024), quoted from Cooney (2012). This table can be used as reference to identify and pinpoint current TVET module or curricula the effectiveness in developing the entrepreneurial intention. Thus, a few hypotheses must be established to test the improvised framework in the future research.

Table 1 *The most needed skills for entrepreneurship (Cooney, 2012)*

| Entrepreneurial Skill Type | Description | Components |
|------------------------------|---|---|
| Technical/Soft skills (TES) | Essential skills for creating/delivering the business's product or service | Communication, interpersonal relations (leadership, networking, and team playing), environmental observation, coordination, research & development, and specific operation technology skills. |
| Managerial skills (MNS) | Required skills for day-to-day management and administration of the business | Planning, decision-making, resource management, motivation, marketing, financial/accounting, and negotiating skills. |
| Entrepreneurial skills (ETS) | Needed skills for recognizing economic opportunities and acting effectively on them | Creativity/innovation, persistence, vision, change orientation (flexibility), opportunity-seeking, and calculated risk-taking skills. |

2.2.1 Technical skills, Management skills, and Entrepreneur skills (H1 & H2)

As discussed, the first part of the framework was taken from Odewole (2024); In this research, the author found that no significant relationship exists between technical

skills and entrepreneur skills, while management skills is significant. However, the theories discussed with empirical evidence have found that the skills and knowledge embedded in a curriculum help and assist the performance of an organisation and the individual itself. There even a study on non-graduate on programme effectiveness which moderately correlated to their entrepreneur skills for sampling of Malaysia Technical Universities Network (MTUN), which consist of *Universiti Tun Hussein Onn* (UTHM), *Universiti Teknikal Malaysia* (UTeM), *Universiti Malaysia Pahang* (UMP) and *Universiti Malaysia Perlis* (UniMAP) as the entrepreneurship programme from 1st year up to final year of their study (Ismail, et al., 2019). To further enhance and reconfirm, sampling using alumni should have a higher correlation as they finished all module and graduated. To support these theories, the elements of experimental learning theory (ELT) which related to work-based learning opportunities and experience to establishing an entrepreneurial mentality (Abdullah, Rahim, & Syahrir, 2024). Rodriguez & Lieber (2020), also mentioned the importance of project-based learning (PBL) in pedagogy, or curricula do promote entrepreneurial mindset development. In other words, there is a probability that sampling in Odewole (2024) is absent in the elements of ELT and PBL. In addition, a study highlights the importance of technical communication in pedagogy to attract industries to hire students which includes practical tutorials, collaborative learning activities, and field training to replace traditional teaching methods (Jamaludin, Alias, DeWitt, & Ibrahim, 2020). In Nigeria, using the mandatory Student's Industrial Work Experience Scheme (SIWES) with industry collaboration can lead to job-creation and unlock economic potential (Usman & Tasmin, 2015). By combining the finding from previous literature, this constructs the first problem statement in the first part of the framework. The hypotheses (H1 and H2) derived from the first part are as follows:

H1: There is a positive relationship between alumni technical skills and entrepreneur skills.

H2: There is a positive relationship between alumni management skills and entrepreneur skills.

2.2.2 Entrepreneurial skills and Entrepreneurial Intention (H3 & H4a, b)

Moving to the second part of the framework, this study intends to gain insight into how entrepreneurial skills affect future entrepreneurial intention. A study carried by Lee, Kang, and Kim (2022) found that learning activities carried out by an organisation successfully supported entrepreneurial intention. In other words, if this element can be translated into TVET curricula, it is not impossible to nurture students

with entrepreneurial intentions. Another study found that perceived desirability and feasibility are positively related to entrepreneurial intention (Romero-Galisteo, et al., 2022). In other words, by creating a desirable environment of entrepreneurship in a campus and it is feasible to attain an entrepreneur, it will lead the student to feel wanting to be an entrepreneur. More advanced findings show that students at Nursing College, Suez Canal University, Egypt, do have entrepreneurial psychological readiness and the intention to become an entrepreneur might be affected by national culture (Abousoliman, Abualruz, & Abdelrahman, 2023). Using the TPB theory, Buli & Yesuf (2015) quoted; *“Entrepreneurial Intention of TVET students are highly influenced by personal attitude of students toward entrepreneurship. Hence, while designing and running the program, significant care should be taken in matters that could enhance students’ individual attitudes toward job creation”*. This finding strengthens the TPB theory, as entrepreneurial intention can be nurtured and inculcated into student environments, especially TVET institutions, as they are equipped with specific and niche technical skills as highly sought over. By adopting questionnaire from a journal title, Entrepreneurship Education through Successful Entrepreneurial Models in Higher Education Institutions (Boldureanu, Ionescu, Bercu, Bedrule-Grigoruta, & Boldureanu, 2020), this study will test below Hypothesis (H) derived from this second part:

H3: There is a positive relationship between entrepreneur skills and entrepreneurial intention.

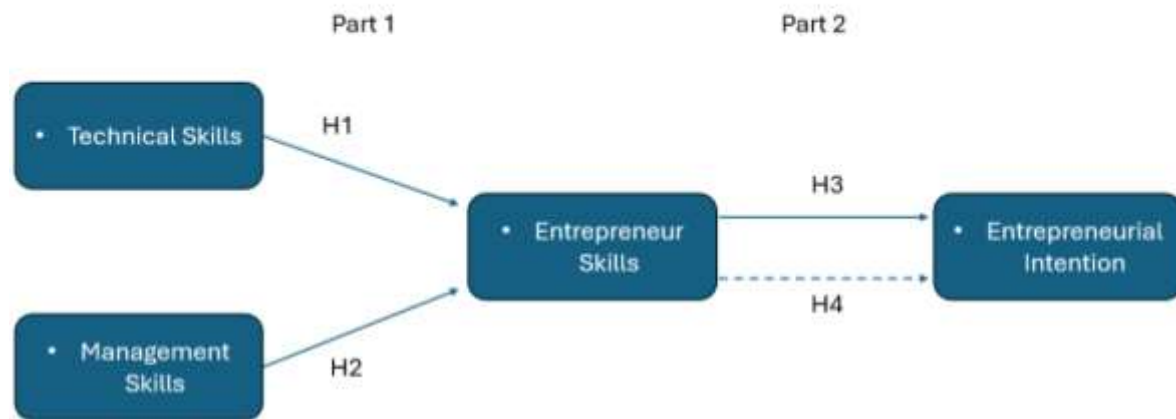
H4a: Entrepreneur skills mediate the relationship between technical skills and entrepreneurial intention.

H4b: Entrepreneur skills mediate the relationship between management skills and entrepreneurial intention.

3. TVET TRAITS – ENTREPRENEURIAL INTENTION MODEL

With both parts explained in the previous section, the improved framework was constructed as follows.

TVET TRAITS – ENTREPRENEURIAL INTENTION MODEL



4. DISCUSSION AND CONCLUSION

This paper contributes to the literature by providing and developing a specific and structured research model. It explains the development of hypotheses based on the literature and it presents a detailed review of the variables i.e. TVET traits and entrepreneurial intention. The theoretical linkages between each relationship in the framework of this study is then developed based on the literature and supported by underlying theories i.e. human capital, resource-based theories and theory of planned behaviour.

Malaysian government has allocated a large budget for TVET development to ensure employability and increase job creation to reduce the unemployment rate among Malaysian youth. Incorporating entrepreneurial elements into TVET curricula will further enhance the entrepreneurial intention of TVET alumni. This will lead the future job market to be driven by TVET graduates, as they create more job opportunities by becoming entrepreneurs in the future and further helm economic growth. Furthermore, the development of the hypothesis is to help develop a survey instrument, as no survey research on TVET Traits – Entrepreneurial Intention model–has yet to be established.

5. FUTURE RESEARCH

Empirical evidence is essential as it demonstrates the viability and reliability of the constructed framework after testing. Building on this, the authors will utilize the refined framework and hypotheses to develop a survey instrument, targeting TVET alumni as the sample population. The study will streamline the process and eliminate discrepancies by incorporating elements of Experiential Learning Theory (ELT) and Problem-Based Learning (PBL). Industrial training will serve as the minimum requirement for ELT and PBL in the sampling criteria, as the research aims to evaluate the relationship between technical, management, and entrepreneurial skills. To have consistent data, only one TVET institution should be tested (standard TVET curricula) with only one education level e.g., Diploma. A targeted sample of 150 participants will be selected

for testing, upon confirmation of this sampling, a questionnaire in the form of a survey will be distributed to respondents via Google Forms. Once the required minimum of 150 responses has been collected, the data will be analyzed using descriptive statistics and partial least squares structural equation modeling (PLS-SEM). If the hypotheses are accepted, this research model can be utilized to analyze the current curricula of TVET institutions from the perspective of their alumni's entrepreneurial intentions. This aligns with and supports the government's aspirations for fostering entrepreneurship among future TVET graduates. By gathering feedback from TVET alumni, the effectiveness of the existing curricula can be assessed and benchmarked, concerning the subjects outlined in Table 1. Through a process of reverse engineering based on the analysis results, TVET institutions can enhance and redesign their curricula to better instill entrepreneurial intentions in current students. This approach will provide TVET institutions with a clearer direction for developing more tailored curricula that effectively promote and motivate students to pursue entrepreneurship in the future.

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**FACTORS PREDICTING EMPLOYEE RETENTION WITHIN THE ADMINISTRATIVE
STAFF OF MICHAEL OKPARA UNIVERSITY OF AGRICULTURE UMUDIKE IN
ABIA STATE, NIGERIA**

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ABSTRACT

This paper predicts the role job passion, organizational commitment and job security plays in employee retention, considering the organizational culture. Organizational commitment, job passion and job security is the independent variables, organizational culture is the mediating variable while employee retention is the dependent variable. The result of this study shows how the variables are related positively. It further shows the mediation effect of organizational culture giving values to job security, which have a push effect on job passion and organizational commitment which will leads to employee retention. The last section of this paper is the discussion and conclusion which answers the research questions and research objectives of the research.

Keywords: Employee Retention, Organizational Culture, Organization Commitment, Job Passion, Job Security.

1. INTRODUCTION

The term "employee retention" refers to the plans that companies create to reduce the risk of employee attrition as well as the procedures they implement to hold onto their best employees. Hiring knowledgeable people for the job is essential for an employer but retention is even more important than hiring the employees, this was said by Abubakar, Bilkisu et al (2021). Michael Okpara University of Agriculture, Umudike Abia State is an institution located in the well-known Agricultural Training and Research town of Umudike, Abia State, in the south eastern region of Nigeria. This is the only federal university of Agriculture in the south eastern part of Nigeria. The University is generously provided with highly trained staff as well as the most important resource for agricultural development: land. Retaining the trained and qualified staff in Michael Okpara University of Agriculture, Umudike is very important and there are factors that could determine the employee retention. According to Onuba and Ndubuisi (2022), their study

discovered that lack of technological know-how, job security challenge, and financial constraints have remained impediments to harnessing the opportunities presented during the pandemic in Michael Okpara University of Agriculture. ANUMBA, A (2023) discussed the effects of organizational structure on management effectiveness of the university, elaborated more saying too much of government interference and lack of independence to the university contributed to the study. This shows that the university body is highly influenced by the federal government. The university is an agricultural university and Nigeria is also known for its ability on agricultural production. The objectives of ANUMBA, A (2023) were to: ascertain the effects of centralization on strategic decision making of the university, examine the effects of specialization on goal achievement, evaluate the effects of formalization on solving problems also to find out the effects of departmentalization on resource allocation in Michael Okpara University of Agriculture Umudike. Organization commitment have a role to play in retaining qualified staff, organizational commitment refers to the psychological attachment an employee has to their organization. It encompasses their loyalty, belief in the organization's values, and willingness to put in extra effort. Employees who are highly committed are more likely to stay with the organization. Their emotional attachment and alignment with organizational values make them more resilient to job offers from competitors or personal dissatisfaction. Job passion has connecting values to retentions, job passion refers to the intense enthusiasm and dedication an employee feels toward their job. Unjai et al. (2022) expressed job passion as state of desire in relation to one's work that arises due to both cognitive and affective appraisals of an employee's own work. Employees who are passionate about their jobs are more likely to be engaged and productive. This heightened engagement often translates into lower turnover rates because passionate employees find their work meaningful and fulfilling. Job security gives the employee the sense of belonging to the institution. Employees who feel secure in their jobs are less likely to seek new employment opportunities. Job security reduces anxiety about potential job loss, making employees more likely to stay with their current employer. When employees feel their jobs are secured in the institution, they can focus more on their work, leading to higher levels of engagement and productivity. Organizational culture plays a pivotal role in employee retention. A positive and supportive organizational culture can significantly impact an employee's decision to stay with or leave an institution. When the factors are considered, it produces high retention rates which reduces turnover-related costs (recruitment, training, lost productivity) and maintain organizational knowledge and continuity. This contributes to overall institutions stability and performance.

Some of the research objectives are stated below;

RO1: To determine the direct effect between Organizational Commitment, Job Passion, Job Security and Organizational Culture.

RO2: To determine the direct effect between Organizational Commitment, Job Passion, Job Security and employee retention.

RO3: To determine the indirect effect of Organizational Commitment, Job Passion, Job Security and employee retention with organizational culture as the mediator.

RO4: To determine the direct effect of Organizational Culture and Employee Retention.

UNDERPINNING THEORY

Social Exchange Theory will be used in the course of this research. Sociologist George C. Homans established Social Exchange Theory in the 1950s, and Peter M. Blau elaborated on it in the 1960s. Homans highlighted the relevance of incentives and costs in social interactions, suggesting that people engage in exchanges with the expectation of earning favorable consequences, Blau, P. M (1964). George Homans, a sociologist, holds that human connections are formed through the application of subjective cost-benefit analysis and alternative comparisons. According to social exchange theory, exchange is a type of social behavior that can have both economic and social consequences.



Figure 1: *Social Exchange Theory (Lloyd & Mertens, 2018).*

LITERATURE REVIEW

The administrative sector plays a crucial role in the smooth operation and overall success of the institution to achieve their expected goals effectively. The administrative staff have so many roles which a few are; ensuring that the institution meets regulatory requirements and accreditation standards, which are essential for maintaining the institution's credibility and securing funding. Administrative workers provide support services such as academic advising, financial aid processing, and student counseling, which help students succeed and feel satisfied. According to Ayeni, Evans and Andeshi, Christopher (2023), Corruption has been midwived into almost every aspect and structure of Nigerian society particularly the university education system in the country making the administrative staff to be biased. Mismanagement of funds is an offspring of corruption which affects the budget of training and development of administrative staff. Ogunode, Josiah, and Solomon (2021) attested to this when they observed that the high rate of corruption in the university system in Nigeria is reducing the volume of funds released to implement the university programme due to mismanagement of funds and embezzlement, this leads to poor maintenance, job insecurity, salary delays or reductions, increased work load, limited professional development opportunities, decreased morale and job dissatisfaction of the university employees. All these have significant negative effects on organizational commitment, job passion, job security. When employees perceive or

experience corruption within an organization, it undermines their trust, morale, and overall commitment.

According to Ayeni, Evans and Andeshi, Christopher. (2023) another factor that has increased high turnover rates is the problems of ghost workers in the university which led to a shortage of staff in the system bringing more stress and discomfort to the active administrative staff of the university. The existence of ghost workers can contribute to an unhealthy work environment, and perceived justice and unfairness to the resilient and passionate employees. Trust is a crucial element in building resilience, and its erosion can make it difficult for employees to cope with challenges. Genuine and effective employees may feel demotivated when they perceive that others are benefitting unfairly from the organization. Favoritism is factor that has created job insecurity among the administrative staff of the university. This is a situation where promotion, benefits, accreditation are given to unqualified staff due to their favorable engagements with the superior. This demoralized the qualified staff to remain in the institution as they believe their efforts are not appreciated.

Organizational commitment has been generally used to refer to the level of psychological attachment that employees feel and display towards their organizations (Bogler & Berkovich, 2020). Researchers have also argued that commitment confers many intangible benefits to organizations in the same way that customer loyalty confers intangible benefits to the organization (Bogler & Berkovich, 2020). The university can improve employee retention by concentrating on methods that encourage emotional commitment, such as strengthening workplace culture, giving opportunity for professional advancement, and acknowledging employee accomplishments. Understanding the various types of organizational commitment will allow the university to establish targeted retention policies that address their employees' individual demands and incentives. Job passion or work passion has been defined in the extant literature as a persistent state of desire in relation to one's work that arises due to both cognitive and affective appraisals of an employee's own work (Unjai et al., 2022). Employees that are enthusiastic about their jobs frequently find them more rewarding and pleasurable. Increased job satisfaction by the university typically leads to increased retention rates. Employees who are satisfied with their jobs are more likely to stay with the institution since their jobs provide them with greater personal and professional fulfillment. Passionate employees are more engaged in their work, demonstrating higher excitement, commitment, and effort. Higher levels of involvement at work are connected with lower turnover intentions. Employees who are engaged are less likely to leave because they feel more connected to and invested in their jobs.

Job security has been defined as the probability that one will retain their job in the near future (Hur, 2019). When the employees feel safe and assured with their jobs, it prevents stress and burnout by removing concerns about job loss and financial insecurity. Secure employees may concentrate on their work rather than worrying about job insecurity. Job security alleviates fears about future career uncertainty, resulting in increased job satisfaction. Organizational cultures affect the way people and groups interact with each other, with clients, and with stakeholders Alabi, Olugbenro and Durojaiye, Adekunle (2023). Employees are more likely to stay with an institution if their personal values are compatible with the organization's culture. Employees who

believe their values and beliefs align with the culture of the organization are more likely to be satisfied with their jobs and stay with the institution for longer periods of time.

When organizational commitment, job passion, job security and organizational culture are considered, it produces high retention rates which reduces turnover-related costs (recruitment, training, lost productivity) and maintain organizational knowledge and continuity. This contributes to the institution overall stability and performance.

Below figure shows the frame work for the research;

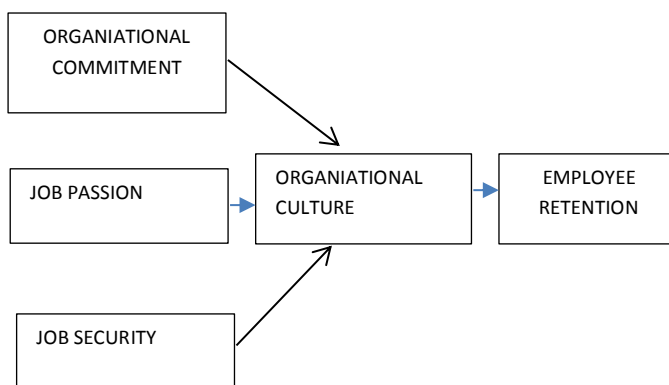


Figure 2. Research Framework

Methodology

The deductive approach and positivist paradigm of research will be used in this research. This is a cause and effect study measuring the relationship between the cause of the effect of the variables. This study will also use a cross-sectional design where data will be taken only once. Quantitative method of data collection will be used. Quantitative research involves the collection and analysis of numerical data to understand relationships between variables and explain phenomena. The research will be a primary research design. The cross-sectional design was used where data was taken or collected only once, one-time data collection usually requires fewer resources, the data was not collected over a long period of time. cross-sectional design is helpful in analyzing the connections or relationship between variables, it also useful as it avoids complexity about changes over time during the period of the research. Quantitative approach is suitable because the study is based on numbers, numbers of administrative staff of the university, measuring the relationship between variables and the statistics. Hypothesis are tested to confirm relationships between variables. The study used a questionnaire to get the data, which are structured questions.

Limitations: Since data is only gathered once, it is not possible for researchers to track changes over time or establish causation. The findings are confined to the time period of data collection and may not reflect changes in patterns or behaviors.

The focus of this research is on the administrative staff of Michael Okpara University of Agriculture, Umudike Abia State. This is the only federal university of agriculture in the south east that's the reason for choosing the university. The university was chosen to ascertain values and level of focus the federal government of Nigeria has on agricultural universities.

DATA COLLECTION PROCEDURE

Data collection procedures: data was gathered through a questionnaire, online survey and offline survey. The survey was sent to the target respondents being the administrative staff of the University to receive the data.

SAMPLE SIZE AND SAMPLING METHOD

Sampling method: The appropriate sample size of the research was determined by the Krejcie and Morgan table (Krejcie 1970) to determine the minimum sample size for the research. It is true all the administrative staff of the university will not be involved in the survey, using the Krejcie and Morgan table, the researcher will determine the minimum sample size for the survey based on the Total population. The total population of the administrative staff is 144. The 144 administrative staff confirmed through the school administrative letter stating numbers of employees in the administrative department. using the Krejcie and Morgan table the appropriate sample size is 82 administrative which will be used for the survey. The study completed the number of respondents to 100 participants which is higher than the minimum sample size to reduce or avoid redundant data affecting the survey, to increase reliability, and generalizability of the study also to enhance validity. Convenience sampling was used as participants were selected due to their convenience and proximity, this makes data collection quicker and easier as participants were selected based on their availability, it is also cost effective and saves time.

Limitation of convenience sampling method: Participants are selected based on convenience, which may lead to bias. finding might not generalize the entire population.

ANALAYSIS AND RESULTS

On the return of the questionnaires distributed, analysis was ran. The analysis below shows the results.

MEASUREMENT MODEL

An analysis was ran to confirm the reliability of the variables. The Cronbach Alfa depicts that all items are reliable as all the variables are above 0.5 and all are below 0.95 else it will depict a redundant data. The table below explains tabularly.

CONSTRUCT RELIABILITY AND VALIDITY OVERVIEW

| | Cronbach's alpha | Composite reliability (rho_a) | Average variance extracted (AVE) |
|----------------------------------|-------------------------|--------------------------------------|---|
| Employee Retention | 0.938 | 0.941 | 0.731 |
| Job Passion | 0.937 | 0.937 | 0.799 |
| Job Security | 0.924 | 0.926 | 0.816 |
| Organizational commitment | 0.904 | 0.905 | 0.777 |
| Organizational culture | 0.942 | 0.946 | 0.743 |

RSQUARE

R-square indicates the proportion of the variance in the dependent variable that is predictable from the independent variables and the values range from 0 to 1.

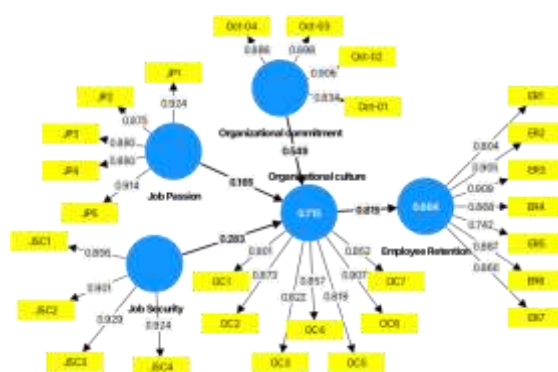
From the analysis table below, 0.664 suggests that the model explains 66.4% variance in the dependent variable.

Please check below for a tabular explanation.

| | R-square | R-square adjusted |
|-------------------------------|-----------------|--------------------------|
| Employee Retention | 0.664 | 0.661 |
| Organizational culture | 0.715 | 0.706 |

PATH COEFFICIENT

Path coefficient will quantify the strength and the directions of relationships between the variables in a model. Path coefficient analysis was ran to determine the relationship between the variables. path coefficients give a clear understand of the strength and direction of relationships, it hypothesizes relationship and create a path diagram, it shows how a change in one variable is expected to make a change in another variable. From the path diagram below, all the items of the variables are very strong and above 0.7. A path coefficient of 0.5 indicates a strong positive effect while less than 0.5 indicates strong negative effect. organizational commitment has a strong positive effect on organizational culture, organizational culture has a strong positive effect with employee retention, while Job passion and job security has a negative effect on organizational culture. Please refer to the table below.



DISCRIMINANT VALIDITY – HETEROTRAIT-MONOTRAIT RATION (HTMT)

A discriminant validity test was done to ascertain how discriminant the variables are among each other. From the analysis below, it shows that the variables discriminate among each other as there are none of the variables above the threshold of 0.9. See table below.

| | Heterotrait-monotrait ratio (HTMT) |
|--|---------------------------------------|
| Job Passion <-> Employee Retention | 0.780 |
| Job Security <-> Employee Retention | 0.633 |
| Job Security <-> Job Passion | 0.655 |
| Organizational commitment <-> Employee Retention | 0.739 |
| Organizational commitment <-> Job Passion | 0.745 |

| | |
|---|-------|
| Organizational commitment <-> Job Security | 0.438 |
| Organizational culture <-> Employee Retention | 0.860 |
| Organizational culture <-> Job Passion | 0.754 |
| Organizational culture <-> Job Security | 0.642 |
| Organizational culture <-> Organizational commitment | 0.836 |

INDIRECT EFFECT ANALYSIS

An indirect analysis was done to see how the constructs affect each other via a mediating variable. From the analysis below, it shows that there is a significant mediating relationship between the independent variables and the dependent variable. It is also seen that there is a significant mediating relationship between organizational commitment, job passion, job security and employee retention. from the analysis, the result suggests that the predictor has minimal direct impact on the outcome variable because it is not up to 0.5 and above. Please check table for details.

| | Original sample (O) | Sample mean (M) | Standard deviation (STDEV) | P values |
|---|----------------------------|------------------------|-----------------------------------|-----------------|
| Job Passion -> Employee Retention | 0.135 | 0.142 | 0.111 | 0.224 |
| Job Security -> Employee Retention | 0.230 | 0.226 | 0.071 | 0.001 |
| Organizational commitment -> Employee Retention | 0.447 | 0.449 | 0.070 | 0.000 |

FINDINGS AND DISCUSSIONS

After a proper analysis of the data listed as explained above, it is seen that organizational culture has a relationship between organizational commitment, job passion and job security. It shows also that organizational culture has a significant relationship with employee retention. This shows that all the variables are closely related and a change in one can affect the other variables

in a minor or major effect. This implies that the university culture should be effective to boost and promote the employees' enthusiasm to commit to the work.

A reliability test was also conducted, beginning with the Cronbach Alpha, composite reliability, and so on. They all turn out to be important. They were all found to be over 0.7 when the Cronbach Alpha was run, which is a positive indicator of the data's dependability. This suggests that the data has a high dependability result in the variables and is internally consistent and dependable.

Tests for discriminating validity were conducted, and the results indicated that these constructs differ from one another. The structural model, which included the path coefficient, the R-square, and the specific indirect effect, was then examined, and some of the results did support the previously mentioned goals. According to the findings, it shows that organizational culture has a significant relationship with organizational commitment, job passion, job security and employee retention. Social exchange theory suggests that employees and employers engage in a reciprocal exchange of resources, where they want to seek maximization of rewards and minimize costs. According to the theory, administrative staff of the university access the institution based on how much support they receive or perceive. A positive organizational culture gives more values to the employees. When the employees receive high organizational support, they are more likely to reciprocate with higher level of commitment. Organizational Commitment according to social exchange theory is a reciprocal action of positive organizational culture which leads to higher level of employee retention. Regarding job passion, social exchange theory posits that employees engage in social relationships based on the expectation of reciprocation. Employees are passionate to their jobs and tasks when they feel the organization supports and values them which will lead to employees being loyal to the institution and be retained. Social exchange theory suggests that when employees perceive great values to their contribution and a supportive environment, they will feel secure in their jobs. Employees that receive fairness and job security assurance, they will reciprocate with high commitment and improved intention to stay.

Conclusively, there is actually a relationship between organizational commitment, job passion, job security and organizational culture, also a relationship between organizational culture and employee retention.

RECOMMENDATIONS AND SUGGESTIONS FOR FUTURE RESEARCH

Improving organizational culture in a failed or struggling institution like Michael Okpara University of Agriculture requires a comprehensive and strategic approach. The goal will be to transform the existing culture into one that accepts transparency to the employees, engagement of the employees and collaboration, this will ultimately drive the organizational success. The strategies will be to assess the current organizational culture of the university, understand the failure, challenges, and areas needing improvement. Examine key performance indicators (KPIs), staff turnover rates, and other pertinent data for patterns that could suggest organizational culture concerns.

It is now seen that organizational culture mediates the relationship between organizational commitment, job passion, job security and employee retention. This shows the strength of organizational culture among the administrative staff of the institution. The Social Exchange Theory, which is crucial because it provides insightful understandings into the nature of human interactions and relationships, ought to be applied by university. It is imperative to understand from the findings; the institutional culture controls the administrative staff passions and intentions to work either efficiently or inefficiently. Through the institutional culture, the employees could develop more passion for their jobs and be committed. More studies could be done also in this context focusing more on a larger scale of respondents maybe considering the academic and non-academic staff of the university. More universities could be studied most especially other federal universities of agriculture in other regions, state universities in the South East of Nigeria. There is little or no research on that sector. More so, it is suggested that other researchers could look at the using staying intention to moderate between organizational culture and employee retention. This gives a different narrative on the intention to stay of the employees.

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135-149

FACTORS AFFECTING CUSTOMER SATISFACTION TOWARD ONLINE SHOPPING IN MALAYSIA

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ABSTRACT

This study examines the significant factors influencing customer satisfaction in the context of online shopping in Malaysia, focusing on key service and product quality dimensions: Security, Information Quality, E-Service Quality, Product Quality, and Delivery Service. Utilizing quantitative methods, data were collected from 209 respondents through surveys, and hypotheses were tested using regression analysis. The findings reveal that each of these factors significantly impacts customer satisfaction, underscoring the importance of these dimensions in enhancing online shopping experiences. This research contributes to the theoretical understanding of e-commerce consumer behaviour and provides practical insights for online retailers aiming to improve customer satisfaction and loyalty. Despite its contributions, the study acknowledges limitations such as its demographic scope and suggests future research avenues, including cross-cultural studies and the exploration of emerging technologies in e-commerce. The study highlights the necessity for online retailers to prioritize improvements in service and product quality to foster brand loyalty and competitive advantage in the digital marketplace.

131-150

EMPOWERED THROUGH CREDIT: UNVEILING THE IMPACT OF MICROCREDIT ON WOMEN'S ENTREPRENEURSHIP

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ABSTRACT

While the role of microcredit in poverty alleviation has been extensively explored, there remains a significant gap in understanding its effectiveness among women micro-entrepreneurs in rural East Malaysia, where a substantial portion of the population still lives below the national average household income. Through scoping and mapping reviews of literature, this conceptual paper explores the role of microcredit to women entrepreneurs on terms of economic empowerment and social well-being. The paper also argues for a more holistic approach to microcredit providers, emphasizing the importance of non-financial services for borrowers. This paper hopes to provide insights to the Malaysian government and microcredit institutions, especially Amanah Ikhtiar Malaysia (AIM) and Yayasan Usaha Maju (YUM), to design flexible and diversified microcredit schemes tailored to the specific needs of low-income women micro-entrepreneurs in Sabah, with a focus on enhancing their business management skills.

Keywords: Microcredit, AIM, YUM, Women Entrepreneurs, Women Empowerment, Rural Enterprises, Micro Enterprises.

016-161

FACTORS INFLUENCING MICRO, SMALL, AND MEDIUM (MSME) ENTREPRENEUR BUSINESS SUCCESS: SOME INSIGHTS FROM MALAYSIA

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ABSTRACT

The success of entrepreneurs in the micro, small, and medium enterprises (MSMEs) sector is critical for bolstering the economy, especially in emerging economies like Malaysia. This study explores the factors that influence entrepreneurial success within the MSMEs sector in Malaysia. These criteria for success, when entrepreneurs are properly managed and utilised, may help MSMEs expand, sustain themselves, and compete in today's changing business environment. A comprehensive review and analysis of articles published on online resources such as Google Scholar and Emerald between 2020 and 2024 was carried out. The findings show that entrepreneurial competence, technology usage, financial resources, marketing strategy, human resource competence, organisational culture, innovation and creativity, and marketing capability are all factors that influence entrepreneur success in MSMEs sectors. This finding may be used as a reference for future researchers, entrepreneurs, the government, and other professionals interested in the development of MSMEs. In addition, it provides the platform for future research into the relationship between these factors and entrepreneurs success in MSMEs sectors.

Keywords: Micro, Small and Medium Enterprises, Malaysian's Entrepreneur, Entrepreneur, Entrepreneur Success, Business Success.

ESSENTIALS OF CIRCULAR SUPPLY CHAIN MANAGEMENT

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ABSTRACT

Supply chain management is essential for businesses to meet the demands of customers across generations and continents. Unfortunately, the present linear approach to the production and distribution supply chain is linked to the creation of harmful waste, environmental degradation, and climate change. To lessen the impact of this problem, academia and industrialists are looking to circular supply chain practices as a viable integration model that can cut down on material flows and waste in the supply chain. However, its full integration into business strategy is impeded by the lack of thorough examination of the essential mechanisms that can support its efficient execution. Consequently, this study employs the scoping review, with the integration of the PRISMA-ScR technique to examine the features, facilitators, and impediments of circular supply chain management to fill this information vacuum and enhance organisational comprehension. Five interrelated critical structures, the government, industry stakeholders, corporate management, end users, and financial institutions were found by the study to be vital components in the circular supply chain strategy. To ensure successful implementation, it is vital that the five identified stakeholders work closely through the integration of legislation and regulations, taxation and tariffs, marketing and consumer education, financial support and incentives, strategic cooperation, resource exchange, synergistic alliances, and technological integration. It is hoped that this study will pave the way to the development of a supportive legislative measure, supported by realistic promotion and education initiatives. This aligns with the aims and objectives specified in the Malaysia Madani framework, which seeks to strengthen the capacities of firm and social entrepreneurs. This study provides additional evidence in support of the United Nations Sustainable Development Goals (UN-SDGs) 8, 9, and 12, which specifically target the promotion of peace and prosperity for both humankind and the environment, in the present and future.

Keywords: Supply Chain Management, Circular Supply Chain, Scoping Review, PRISMA-ScR, United Nations Sustainable Development Goals (UN-SDGs).

MARKETING INNOVATION

008-004

HRNEXUS: SMART HUMAN RESOURCE IN MOBILE APPLICATION

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ABSTRACT

The purpose of this study is to assess the potential improvements in HRM (human resource management) practices across Malaysian organizations through the utilization of the HRNexus mobile application. The objective of this study is to address the existing deficiency in comprehensive mobile solutions that are specifically tailored to work contexts in Malaysia. The primary areas of concentration encompass employee involvement, communication channels, and adherence to regulatory regulations. The research aims to enhance organizational efficiency and employee satisfaction by evaluating the effects of HRNexus adoption on HR practices, communication efficiency, and compliance with Malaysian employment legislation, using technology-driven interventions. Using a quantitative study approach, information was gathered via questionnaires from a wide range of respondents. Using this method made it possible to collect hard evidence about HRNexus's capacity to improve HR processes, guarantee adherence to Malaysian employment laws, and improve communication. The HRNexus technology was also put through a thorough testing process as part of the research methodology to evaluate its efficacy, usability, and performance in actual HR management scenarios in Malaysian organizations. The findings demonstrate that HRNexus significantly improves HRM processes, communication channels, and adherence to legal requirements. This underscores the significance of state-of-the-art HR technology in meeting the evolving demands of contemporary work environments. Data was collected from a diverse group of administrators and staff members through the utilization of questionnaire approaches, employing a quantitative study design. The

purpose of these strategies was to gather concrete data on HRNexus's ability to enhance communication, streamline HR procedures, and ensure compliance with Malaysian employment standards. The HRNexus mobile application was utilized, and the results indicate noteworthy enhancements in human resource management (HRM) procedures within Malaysian organizations. The results emphasize the significance of employing technologybased solutions such as HRNexus to navigate the challenges of modern work environments and enhance overall organizational effectiveness, hence carrying significant implications for stakeholders in human resource management.

Keywords: HRNexus, Human Resource Management, Malaysia Organizations, Mobile Applications, Workforce Management.

042-032

ACADEMIC PERFORMANCE OF STUDENTS WITH DISABILITIES IN SAUDI HIGHER EDUCATION

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ABSTRACT

This study aims to explore the academic performance of student with disabilities (SWDs) in higher education in Saudi Arabia. A sample of 15 SWDs from Jazan University was selected for this study. A comprehensive survey was employed to gather data from the study's sample. This meticulously designed survey aimed to capture a wide range of information relevant to the research. It included questions on various aspects such as accessibility, support services, assistive Technologies, faculty training and peer support. Data were examined using statistical software, which enabled the researchers to test their hypotheses. The analysis focused on identifying key factors that influence academic performance, providing insights into which aspects of the student experience are most critical for success. This thorough approach ensured that the findings were robust and could inform future initiatives to enhance student support and academic outcomes. The results indicated that all hypotheses are supported. Based on these findings, recommendations are provided to enhance the academic performance of students with disabilities in higher education in Saudi Arabia.

Keywords: Students With Disabilities, Academic Performance, Support Services, Higher Education, Saudi Arabia.

049-039

ENHANCING URBAN MOBILITY: ASSESSING THE ADOPTION AND IMPACT OF MICRO-TRANSPORTATION IN KUALA LUMPUR

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ABSTRACT

This study investigates the factors influencing micro-transportation adoption in Kuala Lumpur, focusing on e-scooters, bicycles, and e-bikes. By understanding the factors, policymakers and urban planners can develop strategies to enhance the use of sustainable transportation modes in urban settings. Data were collected from 420 respondents through structured questionnaires and analysed using Structural Equation Modeling (PLS-SEM). Key findings reveal significant direct impacts of incentives and support, public awareness, regulatory environment, and safety measures on micro-transportation adoption. Specifically, incentives and support ($T = 6.048$, $P = 0.000$), public awareness ($T = 2.835$, $P = 0.005$), regulatory environment ($T = 9.566$, $P = 0.000$), and safety measures ($T = 2.490$, $P = 0.013$) positively influence adoption rates. Additionally, mediation analysis shows that incentives and support significantly mediate the relationship between public awareness ($T = 3.332$, $P = 0.001$) and safety measures ($T = 2.719$, $P = 0.007$) with micro-transportation adoption. However, mediation effects were not supported for infrastructure quality ($T = 1.382$, $P = 0.168$) and regulatory environment ($T = 1.774$, $P = 0.077$). The insights suggest that a comprehensive, multifaceted approach that includes robust safety measures, effective regulatory frameworks, public awareness campaigns, and strong incentives and support is necessary to foster sustainable urban mobility in Kuala Lumpur. Future research should explore additional mediating factors and consider longitudinal studies to examine long-term impacts.

Keywords: Micro-Transportation, Adoption, Incentives and Support, Public Awareness, Regulatory Environment, Safety Measures, Kuala Lumpur, Urban Mobility.

049-040

DETERMINANTS OF SOLAR ENERGY ADOPTION AMONG HOUSEHOLD OWNERS IN BIG CITIES: A QUANTITATIVE ANALYSIS USING THE TECHNOLOGY ACCEPTANCE MODEL

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ABSTRACT

This study investigates the factors influencing the acceptance of solar energy among urban households in Malaysia, focusing on variables such as Awareness and Understanding, Cost Factors, Environmental Concerns, Social Influence, Government Support, Perceived Ease of Use, and Perceived Benefits. Using a quantitative approach, data were collected from 360 respondents and analyzed using SmartPLS. The findings reveal that Environmental Concerns, Perceived Benefits, and Perceived Ease of Use significantly impact solar energy acceptance, while Awareness, Cost, Government Support, and Social Influence are less influential. The study highlights the importance of promoting environmental awareness and improving the perceived ease of use to enhance solar energy adoption.

Keywords: Solar Energy Adoption, Environmental Concerns, Perceived Benefits, Government Support, Awareness, Perceived Ease of Use.

049-041

DETERMINANTS OF INTEREST IN ELECTRIC VEHICLE ADOPTION AMONG CAR DRIVERS IN MALAYSIA: THE MEDIATING ROLE OF GOVERNMENT INCENTIVES IN KLANG VALLEY

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ABSTRACT

The transition to electric vehicles (EVs) is a crucial step towards achieving environmental sustainability and reducing carbon emissions in the transportation sector. This study investigates the factors influencing Malaysian car drivers' interest in buying electric cars. The research identifies key independent variables, including environmental concerns, cost considerations, performance and reliability, government incentives, social influence, charging infrastructure, and brand trust. It also examines the role of perceived ease of use and convenience as a mediating variable between these factors and the interest in purchasing electric cars. A quantitative methodology was employed, using a survey of 360 respondents analyzed through SmartPLS. The findings reveal that performance, reliability, and charging infrastructure are significant drivers of EV interest, with government incentives enhancing these effects. The discussion emphasizes the need for integrated strategies that combine technological advancements with robust policy support to accelerate EV adoption in emerging markets like Malaysia. This study aims to provide valuable insights that can inform policy decisions, enhance marketing strategies, and contribute to the academic literature on electric vehicle adoption, ultimately promoting sustainable transportation in Malaysia.

Keywords: Electric Vehicles, Government Incentives, Charging Infrastructure, EV Adoption.

053-048

EVALUATING THE ROLE OF ONLINE COMMENTS AND RATINGS IN HOTEL BOOKING DECISIONS

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ABSTRACT

This study aims to explore how customer decisions are influenced by online comments and reviews when selecting a hotel. The rise of online review platforms has transformed consumer behaviour, making it crucial for the hospitality industry to understand the factors that drive customer choices. Despite extensive research on the general impact of online reviews, there is a gap in understanding the specific attributes of reviews that most significantly influence hotel booking decisions. This study seeks to fill that gap by analysing a large dataset of hotel reviews and customer booking behaviours. This study examines the correlation between numerical ratings, sentiment, and content richness towards customer booking decisions. Numerical ratings provide a quantifiable measure of customer satisfaction, while sentiment analysis reveals the emotional tone of the reviews. Content richness, including detailed descriptions and multimedia elements, adds depth to the information provided in the reviews. The results indicate that numerical ratings are the most significant predictor of booking decisions, followed by review sentiment and content richness. Higher numerical ratings strongly correlate with increased booking likelihood. At the same time, positive sentiment in reviews enhances trust and the likelihood of booking. Detailed and rich content in reviews also positively impacts booking decisions by providing potential customers with comprehensive information that reduces uncertainty. The findings offer actionable insights for hotel management to optimise their online presence, enhance customer satisfaction, and ultimately increase bookings. Hotels can strategically manage their online reputation and improve their competitive edge in the market by focusing on the elements of reviews that most strongly influence customer decisions.

Keywords: Online Hotel Reviews, Customer Booking Decisions, Review Sentiment Analysis.

ENHANCING PURCHASE EXPERIENCE: SOCIAL MEDIA PLATFORM INCORPORATING LIVE COMMERCE

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ABSTRACT

The study explores the integration of live commerce on social media platforms to enhance the purchase experience among millennial buyers in Malaysia. In an era where digital engagement is paramount, live video marketing emerges as a powerful tool to bridge the gap between brands, trust and consumers. By leveraging real-time interaction, authenticity, and immersive content, online sellers or businesses can foster a more engaging and personalized shopping experience. This research delves into the preferences and behaviors of Malaysian millennials, assessing the impact of live video content on their purchasing decisions which also indicates the buying experience. The survey has been responded online by the 152 respondents as sampling for analysis purpose which has been filtered using purposive sampling among millennials who has purchase online after watching live commerce streaming content in their own social media. The findings underscore the potential of live commerce to not only increase value and trust but also drive better reliability and user buying decision making through live streaming in the competitive Malaysian market.

Keywords: Live Commerce, Millennials, Purchase Experience, Social Media, AR Characteristics.

068-066

THE INFLUENCE OF THE MARKETING MIX, BRAND IMAGE, MOTIVATION, AND CREDIT TRANSFER ON STUDENTS' DECISIONS TO ENROLL AT A PRIVATE UNIVERSITY IN MALAYSIA

Dr Wan Amira Wan Ahmad, Dr Khairul Shahida Shabi, Arman Bin Ahmad & Dr Anis Abdul Razak

ABSTRACT

Analysing the various factors that influence a student's decision to enroll in a private university is crucial for developing a marketing strategy that targets the ideal student demographic. This study aims to examine the factors influence decision-making process of undergraduate students when choosing a private university in Malaysia. The research focus on the marketing 7Ps, brand image, motivation, and credit transfer. To gather data, a questionnaire was distributed to 350 students at University Kuala Lumpur using stratified random sampling. The findings indicate that the marketing mix (physical evidence, process), brand image, and motivation influence the student's decision, with brand image being the most significant factor. This study can contribute to the development of marketing strategies that will help increase the number of students enrolling in the university's undergraduate program.

Keywords: Marketing Mix, Brand Image, Motivation, Credit Transfer, Student Decision, Private University.

068-069

THE INFLUENCE OF THE BRAND IMAGE, MOTIVATION ON STUDENTS' DECISIONS TO ENROLL AT A PRIVATE UNIVERSITY IN MALAYSIA

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ABSTRACT

Recent alterations in the realm of higher education have engendered a substantial transformation of the educational landscape. This was evidenced by the proliferation of both public and private institutions. Consequently, universities now face the formidable challenge of alluring students to opt for their institutions amidst this heightened rivalry. Analyzing the various factors that influence a student's decision to enroll in a private university is crucial. This study aimed to examine the factors influencing the decision-making process of undergraduate students when choosing a private university in Malaysia. This study focuses on brand image and motivation. To gather data, a questionnaire was distributed to 350 students at Kuala Lumpur University using stratified random sampling. The findings indicate that brand image and motivation influence students' decisions, with brand image being the most significant factor. This study contributes to the development of marketing strategies that will help increase the number of students enrolled in the university's undergraduate program.

Keywords: Brand Image, Motivation, Student Decision, Private University.

074-078

EXPLORING THE IMPACT OF SOCIAL MEDIA MARKETING ON BRAND TRUST: A CONSUMER PERSPECTIVE

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ABSTRACT

Social media has become an invaluable marketing tool in the digital age, completely changing the way businesses interact with their customers. This study examines how social media marketing affects consumer trust in brands. The study aims to understand how these components contribute to building and maintaining customer trust in a company by looking at different methods of social media such as influencer partnerships, engagement methods and content marketing. According to research, a true, honest and consistent presence on social media significantly increases brand trust. This relationship is strengthened by positive engagement, such as quick responses to customer questions and comments. In addition, collaborating with well-known influencers who share the brand's values can increase followers' trust. According to the results of the study, engagement and authenticity define successful social media marketing.

Keywords: Social Media, Marketing, Brand Trust.

074-080

UNDERSTANDING THE IMPACT OF ELECTRONIC CUSTOMER RELATIONSHIP MANAGEMENT (E-CRM) SYSTEMS ON ONLINE SHOPPER LOYALTY: A STUDY IN MALAYSIA

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ABSTRACT

This study investigates the aspects involved in the implementation of electronic customer relationship management systems for online shoppers. A cohort of 359 individuals consisting of university students and professionals. The data was analyzed with the SmartPLS 4.0 program. The study identified many significant characteristics that influence e-loyalty among customers who purchase online in Malaysia, including e-loyalty, incentives, site safety, engagement, and decision-making in E-CRM. An in-depth analysis was conducted on these factors, yielding useful insights for practitioners and scholars. The study outlined its limitations and provided recommendations to direct future research and contribute to the academic community focused on this area. To further improve knowledge and practices in the ecommerce industry, researchers and practitioners may overcome these constraints and adopt the recommendations for e-CRM deployment and e-loyalty enhancement.

Keywords: E-Loyalty, Incentive, Site Safety, Engagement, Decision-Making.

074-082

MAXIMIZING BRAND VISIBILITY: THE EFFICACY OF SOCIAL MEDIA AS AN ONLINE BUSINESS PLATFORM

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ABSTRACT

This study examines the efficacy of utilizing social media as an online business platform. With its exponential growth and extensive user base, social media has emerged as a valuable marketing tool for companies seeking to engage with a younger demographic. The research delves into how social media's distinctive algorithm, content structures, and viral capabilities can potentially enhance brand visibility, consumer interaction, and financial returns. Numerous organizational case studies are analyzed, showcasing successful implementations of social media for marketing and sales, while emphasizing crucial strategies and best practices. Results indicate that social media's dynamic and visually stimulating content environment presents significant opportunities for businesses to innovate in their marketing approaches and effectively connect with a broader audience. The study concludes by offering insights and recommendations for organizations considering the integration of social media into their digital marketing strategies.

Keywords: Behaviour Intention, Content Quality and Frequency, Influencer Partnerships.

081-086

EXPLORING THE IMPACT OF ARTIFICIAL INTELLIGENCE ON ONLINE SHOPPING PURCHASE INTENTION: THE ROLE OF TRUST, PERFORMANCE, EASE OF USE, ENJOYMENT, AND USEFULNESS

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ABSTRACT

Artificial Intelligence (AI) is revolutionising the field of online purchasing by offering tailored suggestions and enhancing user satisfaction. Nevertheless, variables that impact customer purchase intentions on platforms powered by artificial intelligence have not been thoroughly investigated. The present study aims to examine the influence of perceived utility, convenience of use, performance/quality, trust, and enjoyment on purchase intentions inside shopping environments that are powered by artificial intelligence. Building upon the Technology Acceptance Model (TAM) by incorporating trust and performance, the study provides a comprehensive perspective on customer behaviour. An analysis was conducted on data from 287 respondents using Smart PLS-SEM to evaluate the associations between factors. Analysis reveals that the perceived utility, ease of use, performance/quality, and trust have a substantial impact on purchase intentions, but enjoyment does not. Thus, customers tend to give higher importance to the pragmatic advantages of AI, such as dependability, simplicity, and credibility, rather than hedonic characteristics. This study emphasises the need of firms enhancing the practical features

of AI systems, such as reliability, user-friendliness, and security, in order to build trust and promote purchases. This work addresses a vacuum in knowledge on the roles of performance and trust in the adoption of artificial intelligence (AI) and questions the idea that enjoyment significantly affects e-commerce behaviour. Further investigation is needed to examine cultural disparities, developing technologies such as augmented reality, and privacy issues in order to enhance comprehension of consumer behaviour in AI-powered buying.

Keywords: Artificial Intelligence (AI), Online Shopping, Technology Acceptance Model (TAM), Consumer Purchase Intention, Smart PLS-SEM.

081-087

EXAMINING THE ROLE OF AI-POWERED CUSTOMER FEEDBACK CHANNELS IN ENHANCING CUSTOMER SATISFACTION IN THE RETAIL INDUSTRY: A PRE-MARKET PERSPECTIVE

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ABSTRACT

Achieving customer satisfaction is of utmost importance for long-term success in the very competitive retail sector. With the introduction of artificial intelligence (AI), customer feedback service channels have developed, offering improved levels of interaction and pleasure. This work aims to investigate the impact of agility, dependability, tangibility, empathy, and assurance on artificial intelligence. The mediation is enabled by the Service Quality (SERVQUAL) gap model, which demonstrates how AI addresses deficiencies in service delivery by guaranteeing prompt and precise replies to consumer input. The study aims to address a research gap in the complex interaction of these variables by using a cross-sectional survey approach to collect data from 201 individuals in the Aeon Rawang environment. Advanced statistical methods such as Partial Least Squares (SmartPLS) and SPSS are used in this study to test hypotheses and investigate the mediating impact of SERVQUAL. Research suggests that customer happiness has a substantial impact on AI, with responsiveness and dependability also being crucial factors. The practical value of this research is in providing retail managers with practical insights to improve AI-driven

feedback channels, hence boosting service quality and customer pleasure. By employing AI technologies efficiently, merchants can not only fulfil but also surpass customer expectations, therefore cultivating enduring loyalty and gaining a competitive edge in the ever-changing retail environment. This paper highlights the importance of artificial intelligence (AI) in transforming management methods for customer feedback. It establishes AI as a fundamental element for promoting ongoing improvement and customer-centricity in retail operations.

Keywords: AI Technologies, Customer Satisfaction, Service-Quality Gap Model (SERVQUAL).

081-088

ARTIFICIAL INTELLIGENCE-POWERED CHATBOTS: ENHANCING CUSTOMER SERVICE EFFICIENCY IN THE BUSINESS INDUSTRY

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ABSTRACT

This study examines the direct relationship among extrinsic value, competence, accuracy, usability testing, social presence, and customer happiness in the specific setting of AI-driven chatbots employed by enterprises in the Klang Valley region. Given the growing use of AI-powered chatbots in the banking, e-commerce, telecoms, and food delivery sectors, it is essential to comprehend the impact of these systems on consumer satisfaction. Although the current body of research mostly concentrates on technical factors such as correctness and competence, there is a significant deficiency in investigating the impact of extrinsic value, usability testing, and social presence on customer satisfaction, especially within the Malaysian framework. A quantitative research approach was used to fill this need, employing an online survey to gather data from 250 participants who engaged with chatbots from companies such as CIMB, LAZADA, AirAsia, and Grab Food. The data collected were examined using Smart PLS software to evaluate the correlations among the variables. Extrinsic value and social presence significantly improve customer happiness, suggesting that chatbots offering concrete benefits and engaging, human-like conversations are more likely to enhance consumer experiences. In contrast, the study

revealed that competence, accuracy, and usability testing did not have a substantial influence on customer satisfaction. This implies that customers tended to value involvement and usefulness more than technical performance. This work enhances the existing body of knowledge by addressing the question of how external value and social presence impact customer satisfaction in AI-driven chatbot encounters. It emphasises the need of prioritising customer experience design during the adoption of chatbots. These results provide useful and applicable knowledge for companies seeking to optimise chatbot interactions in order to increase customer happiness and strengthen their competitive advantage in a market dominated by digital technologies.

Keywords: AI-Powered Chatbots, Customer Satisfaction, Social Presence, Extrinsic Value, Usability Testing.

081-090

THE EFFECT OF SMART TEACHING LEARNING ON TEACHING QUALITY OF UNIVERSITY STUDENTS AT KLANG VALLEY

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ABSTRACT

This study examines the efficacy of teaching in higher education institutions in the Klang Valley, focusing on smart teaching environments, smart teaching resources, e-learning, learning ability, and classroom design. As educational technologies become integral to modern pedagogy, understanding their impact on teaching quality is crucial. Despite extensive research on the benefits of smart technologies, there remains a gap in analyzing their real-world effects, especially regarding diverse student populations and evolving digital landscapes. This study employed a quantitative research methodology using stratified random sampling to collect data from 253 academics and students at leading institutions, with analysis conducted via Partial Least Squares Structural Equation Modelling (SMART PLS). The findings reveal that smart teaching environments, resources, e-learning, and learning ability positively and significantly impact teaching quality, promoting engagement, personalized learning, and instructional effectiveness. However, no significant correlation was found between classroom design and teaching quality, suggesting the diminished influence of physical layouts in technology-rich environments. This study fills a gap in the literature by providing empirical evidence on the

comparative impact of traditional classroom designs and smart technologies. It offers valuable insights for educators, administrators, and policymakers seeking to enhance teaching efficacy through technology. Future research should explore the long-term effects of smart technologies, virtual classroom design, and teacher preparedness for technological adoption.

Keywords: Smart Teaching Environment, E-Learning, Teaching Quality, Smart Teaching Resources, Learning Ability, Classroom Design.

081-091

EXPLORING THE INTERPLAY BETWEEN ATTITUDES, ACCESSIBILITY, AI APPLICATION, AI ACCEPTANCE AND DEPTH OF INFORMATION IN ENHANCING HEALTHCARE AWARENESS

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ABSTRACT

In recent years, Artificial Intelligence (AI) integration into healthcare systems has revolutionised medical practices by improving diagnostic precision, treatment planning, and patient care management. Machine learning and natural language processing are AI technologies that empower healthcare practitioners to analyse extensive data, forecast diseases, customise treatment strategies, and optimise resource allocation. Moreover, applications powered by artificial intelligence facilitate the continuous monitoring and timely identification of health defects, thereby enhancing patient results and decreasing healthcare expenses. Notwithstanding these progresses, obstacles such as issues about data privacy and regulatory frameworks remain, requiring ongoing discussion and development. Utilising SmartPLS for data analysis, this study adopted a quantitative research methodology and administered a structured survey to 230 participants to evaluate their awareness and expertise of AI in healthcare. Significant positive relationships were found in the statistical study between the depth of knowledge, attitudes towards AI, accessibility, applicability, and acceptability aspects with AI awareness in healthcare. These results emphasise the crucial significance of these elements in improving AI awareness

among healthcare workers. The study underscores the need of offering thorough information, cultivating favourable attitudes, and guaranteeing easy access to AI technologies in order to promote their integration and acceptance in healthcare environments. Focussing on these crucial elements, healthcare stakeholders can successfully advance AI awareness and comprehension, hence facilitating its extensive acceptance and use in clinical practice.

Keywords: Awareness, Accessibility, Application, Acceptance and Depth of Information.

090-099

THE SIGNIFICANCE OF BRAND EXPERIENCE IN MEDIATING SOCIAL MEDIA MARKETING ACTIVITIES AND CUSTOMER BASED BRAND EQUITY (CBBE)

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ABSTRACT

The primary goal of this study is to experimentally examine the mediating role of Brand Experience in the impact of social media marketing activities on customer-based brand equity (CBBE). We employed a quantitative methodology and designed a survey questionnaire to measure customer-based brand equity (CBBE). The survey was administered to 226 Tokopedia consumers. Our investigation focuses on how social media marketing significantly affects customer-based brand equity. We used structural equation modeling (SEM) in AMOS version 24 for the analysis. Our findings demonstrate social media marketing significantly affects customer-based brand equity and brand experience. Social media marketing and customer-based brand equity are favorably mediated by brand experience. This study's significance lies in demonstrating how the development of brand experience mediates social media marketing activities and customer-based brand equity (CBBE) in e-retail industry is the focal point of this study.

Keywords: Social Media Marketing Activities, Brand Experience, Customer Based Brand Equity (CBBE).

095-108

CRITICAL SUCCESS FACTORS FOR MARKETING PROFESSIONALS IN THE ERA OF AI-POWERED DIGITAL MARKETING

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ABSTRACT

The adoption of Artificial Intelligence (AI) within the realms of marketing project management (MPM) is revolutionizing the domain of digital marketing. AI's potential to boost efficiency, productivity, and decision-making marks a significant shift, necessitating a new set of skills and competencies for marketing practitioners. This ushers in an era marked by enhanced capabilities and novel challenges. With AI automating routine operations and offering insights based on data, it's imperative for project marketing professionals to adapt and evolve to maintain their critical role in this AI-influenced epoch. This study delineates seven essential success factor dimensions essential for marketing professionals to excel in this evolving landscape. These include deep industry knowledge, proficiency in core project portfolio enterprise management (PPEM) processes, fundamental coding skills, expertise in data visualization, and proficiency in data science, business analysis and communication. Developing these competencies enables marketing professionals to not only excel in the era of AI but also play a pivotal role in shaping the future of digital marketing.

Keywords: Artificial Intelligence, Coding, Data Visualization, Data Science Acumen.

1 INTRODUCTION

AI signifies a transformative shift in the essential skills and competencies for marketing professional. Comprehending the key success factors these professionals require to master in the domain of AI-Powered Digital Marketing is vital. This understanding provides stakeholders and sponsors with a detailed perspective on the elements facilitating the integration of artificial intelligence (AI) into marketing project management (MPM) and portfolio enterprise management (PPEM) processes. According to [45][57], the successful integration of AI necessitates both strong support from senior management and specialized expertise. This

acquired knowledge is crucial for marketing professionals aiming to bolster their success rates in AI-driven initiatives. Marketing project managers and professionals encounter a demanding environment marked by extensive responsibilities, intense activity, a lack of clarity, and the imperative to focus on efficiency [37][50].

The importance of this research is highlighted by the ability of AI adoption to streamline various tasks, including data collection, analysis, and decision-making [1][45]. This streamlining is instrumental in enhancing the optimization, efficiency, and cost-effectiveness of marketing project portfolio management (MPPM) and portfolio enterprise management (PPEM), thereby alleviating the pressures on marketing professionals who grapple with significant workloads, frantic schedules, disjointed tasks, and the pursuit of quick solutions [37][50]. Given the rapid evolution of AI and the continual emergence of new applications [46][32][42], marketing professional play a vital role in ensuring the strategic use of AI to enhance marketing results and support informed decision-making. The paper underscores the necessity for marketing professional to adapt and integrate AI and digital tools, to enhance marketing outreach responsiveness, achieve greater agility, efficiency, and ultimately achieve sustainable and consistent success outcomes.

2 LITERATURE REVIEW

2.1 Overview on AI Integration and Adoption in Marketing Project Portfolio Management (MPPM)

[8][30] highlight the pivotal role of AI integration and adoption in the digital marketing space in aiding organizations to attain their objectives through the delivery of desired outcomes such as innovative products and services, enhanced customer experiences, and increased efficiency in operations, necessitating comprehensive knowledge in marketing processes. [60] emphasizes the significance of industry-specific knowledge in crafting AI solutions within the marketing sector. A consensus among various authors [33][58][6][10] is that profound professional knowledge and sector-specific expertise are fundamental in the adoption and evolution of AI, positing that marketing professional with deep sectoral understanding are more adept at identifying and leveraging AI to address unique industry-specific challenges and opportunities.

[58][6] describe AI adoption as leveraging AI technologies to refine project management and business operations. [33][58][6][41] advocate that the integration of AI is crucial for organizations aiming to effectively execute project management and business strategies to realize their intended goals. Marketing projects underpinned by robust project management are more inclined to achieve their objectives, adhere to budget and timelines, and fulfill expected outcomes [45][37][38]. [41][35][36] define success factors as attributes that contribute to a project's success, emphasizing the role of skilled professionals in ensuring this. [46] underscores the necessity for a dedicated team equipped with relevant skills and knowledge to deploy and oversee AI initiatives. [32] stresses the importance of enabling personnel and developers to create solutions using appropriate technologies tailored to specific functions. [45] supports the growing evidence that industry-specific expertise is vital for the effective application of AI in

marketing project management (MPM). Moreover, [10][9] have identified that professionals need essential skills like deep industry knowledge, proficiency in core project management processes, basic coding, data visualization, and data science expertise to excel and meet their immediate and long-term career objectives, aligning with the strategic and long-term goals of their organizations. In the context of rapid advancements in AI and evolving enterprise applications [46], marketing professional with data science capabilities play an essential role in ensuring the effective use of AI to enhance MPM and PPEM processes and facilitate informed decision-making [45].

2.2 Deep industry expertise

Professionals with substantial industry knowledge are more adept at utilizing AI in their specific sectors [33][58][6]. They possess an acute understanding of the unique challenges and potential AI offers within their industries. [10] suggests that professionals in various companies can utilize their sector-specific expertise to pinpoint and prioritize AI initiatives that promise the most significant business impact. Their comprehensive industry insight is crucial for steering the development of AI models in marketing, interpreting the outcomes produced by AI, and making strategic decisions that are in sync with current industry trends and standards [29][52][5][1][18][23]. Since AI technologies are data-dependent, the integrity of their output's hinges on the input quality [33]. Marketing experts with in-depth industry knowledge are pivotal in ensuring the effective application of AI tools, guaranteeing that their outputs are pertinent, actionable, and consistent with industry norms [29]. Such professionals possess an understanding of industry subtleties that AI tools lack, enabling them to navigate, interpret, and refine AI outcomes effectively [61]. By capitalizing on their profound industry expertise, these professionals can adeptly steer and refine AI models to generate insightful outputs and make well-informed decisions [5] [18] [23]. In essence, marketing professional endowed with industry expertise are optimally positioned to exploit AI's potential, thereby enhancing both tactical and strategic decision-making processes.

2.3 Mastery of Core Project Portfolio Enterprise Management Processes (PPEM)

[14] notes that although AI can automate numerous tasks within project and portfolio enterprise management (PPEM) and expedite processes, a comprehensive and solid grasp of the fundamental principles is essential to guarantee the accuracy and compliance of AI-generated outcomes. Such expertise is indispensable for confirming that AI-produced results are grounded in established marketing processes and methodologies [52] [5] [23]. It is imperative for marketing professional to maintain their proficiency in critical areas such as market forecasting, business analysis closing accounts, financial forecasting, adherence to revenue recognition norms, managing scheduling risks, and complying with regulatory standards to effectively deploy AI tools and ensure that the AI-generated results are based on robust practices [14].

2.4 Basic Coding Skills

In the contemporary AI-driven context, it is increasingly imperative for marketing professional to acquire a foundational understanding of programming languages such as Python [3][42]. These coding competencies enable professionals to streamline processes like data collection, cleansing, and visualization, thereby boosting team productivity and enhancing the quality of decision-making [47][28]. Fundamental coding abilities facilitate the automation of routine tasks, the crafting of tailored AI solutions, and the interpretation of AI-driven results within the realm of digital marketing, and project management [16]. With proficiency in languages such as Python and the use of robust APIs in Enterprise Resource Planning (ERP) systems, professionals can optimize data-related processes, which in turn augments team efficiency and the decision-making process [43].

As the evolution of Artificial Intelligence (AI) persists, it is reshaping the domain of marketing. The shift from traditional methodologies to a more strategic and data-oriented approach signifies the transformative impact AI has on the field [60][47]. For marketing professional to effectively harness AI, in the digital marketing ecosystem, it is crucial to cultivate essential skills in data science and coding [42]. AI's rapid integration into marketing project portfolio management (MPPM) practices underscores the necessity for professionals to grasp and apply AI tools and methodologies effectively [33].

2.5 Data Visualization Expertise

Conveying complex marketing PPEM data effectively is pivotal for sound decision-making [55]. Marketing professional need to excel in data visualization techniques, merging analytical acumen, narrative skills, and design proficiency to convert complex data sets into clear and impactful visual stories that enable informed executive decisions [31][49]. Given the vast amounts of data generated by AI tools, the capability to present this data in an easily interpretable and coherent manner is crucial [44]. Mastery in data visualization is key for translating AI-generated insights into actionable information for stakeholders and facilitating data-driven decision-making [48].

In the realm of digital marketing and marketing portfolio project management (MPPM), the ability to effectively communicate sophisticated data is vital for making well-informed choices. Professionals in this field should be proficient in data visualization, integrating analytical, narrative, and design expertise to render complex data into engaging and insightful visual stories for decision-makers [31][49].

2.6 Data Science Acumen

The role of data science is essential in leveraging AI to enhance marketing project portfolio management (MPPM) and PPEM processes and informed decision-making [40][24]. Data scientists can apply AI-generated data to produce data-driven projections, identify irregularities in extensive data sets, and construct predictive models to reduce risks and improve

efficiency [10]. Data science, defined as the extraction of knowledge from data [29], is crucial for understanding AI's potential and crafting effective AI strategies [1]. In a competitive market, making decisions based on data is imperative [18]. Developing data science competencies allows professionals to use predictive analytics to generate forecasts, spot anomalies in large data sets, and refine insights from AI [5] [23].

In the current competitive scenario, making decisions driven by data is of utmost importance [32][63]. [10] suggest that a strong emphasis on data and analytics enables marketing professionals to monitor their AI initiatives' progress and make well-founded improvements. The AI field is evolving swiftly, with continual development of new applications [46][32]. Data scientists play a crucial role in ensuring AI's effective use in enhancing PPEM processes and informed decision-making [39][25][4].

2.7 Business Analysis and Communication

Business analysis and communication have emerged as indispensable competencies for marketing professionals navigating the complex landscape of AI-powered digital marketing [16b]. The ability to scrutinize vast datasets generated by AI algorithms, extract meaningful insights, and effectively communicate these findings to diverse stakeholders is paramount. Moreover, as AI automates routine tasks, marketers must focus on higher-order strategic thinking and storytelling, demanding exceptional communication skills to build brand narratives and foster customer relationships [43b]. Thus, a solid foundation in business analysis and communication empowers marketers to harness the potential of AI while maintaining a human-centric approach to driving business growth.

3 METHOD

An extensive review of over 200 articles published between 2006 and 2023 was conducted to grasp the current state of knowledge concerning AI's integration and adoption in PPEM. This review pinpointed several key factors critical for the successful integration and adoption of AI in project management and PPEM, guiding professionals to excel in the AI-driven project management landscape. It underscores the importance for project and financial professionals to develop and refine skills in industry knowledge, PPEM process expertise, coding, data visualization, and data science, all identified as critical success factors [58] [5] [23] [42][55]

3.1 Literatures Reviewed on Project Management, Deep Industry Expertise, PPEM Processes, Basic Coding Skills, Data Visualization and Data Science Acumen

The researcher began collecting and analyzing journal articles in December 2022, reviewing a total of 260 articles and categorizing 132 into seven distinct dimensions, each comprising various key factors. As illustrated in Table 1, the categorization included eighteen journal articles on deep industry expertise, twenty on the mastery of core PPEM processes, twenty-two on basic coding skills, twenty on data visualization expertise, and twenty on data science acumen, fifteen on business analysis, seventeen on communication. The synthesis of these articles provided a foundation for discussing the pivotal elements that empower professionals to excel in the AI-enhanced project management and financial domains.

Table 1. Number of journal articles categorized into the Seven dimensions of CSFs.

| Description | Number of Articles |
|--------------------------------|--------------------|
| Deep Industry Expertise | 18 |
| Mastery of Core PPEM Processes | 20 |
| Basic Coding Skills | 22 |
| Data Visualization Expertise | 20 |
| Business Analysis | 15 |
| Communication | 17 |
| Data Science Acumen | 20 |

4 PROJECT PORTFOLIO MANAGEMENT (PPM)

Project portfolio management (PPM) plays an integral role in fostering organizational agility [2][34], encompassing the effective management of project selection, prioritization, and execution to enhance adaptability and responsiveness to changes [22][54]. The integration of artificial intelligence (AI) within PPM empowers marketing professional to with the overarching goals of the organization, providing a cohesive direction [7][54]. Additionally, PPM aids in risk management by identifying, evaluating, and mitigating potential project risks, thereby reducing interruptions and delays [53][51]. It also optimizes resource allocation, ensuring that resources are utilized efficiently across projects [51][59]. Increasing business value and drives differentiation. Moreover, PPM enhances collaboration and communication, establishing a common understanding of project priorities and interdependencies, which supports effective coordination and decision-making [54]. The adoption and integration of AI within marketing PPM synergize these processes, enhancing strategic implementation and accelerating the execution phase [54].

PPM acts as a conduit linking organizational strategy with execution [12], connecting project management with overarching strategy through program and portfolio management,

thereby facilitating strategic coherence, optimizing resource deployment, and encouraging ongoing learning [27]. Through adept management of project portfolios and the strategic application of AI, marketing professional can help organizations navigate uncertainties, capitalize on emerging opportunities, and adapt to evolving market dynamics, thereby achieving sustained success [2][3].

5 CONCLUSION

As the integration of Artificial Intelligence (AI) in the digital marketing ecosystem intensifies, professionals are encountering a paradigm shift, necessitating the acquisition of vital data science and coding competencies. AI is transforming marketing project portfolio management practices (MPPM), rendering these skills indispensable for effectively utilizing AI tools and methodologies. To excel in this AI-centric environment, marketing professional are required to adapt and enhance their skills continually. By acquiring and refining these essential abilities, they can align with ongoing industry changes, optimizing their potential for successful AI integration and setting the stage for future advancements in digital marketing project portfolio management. There is a consensus among experts that fostering a culture of innovation, experimentation, and a strong emphasis on data analytics is vital for the effective deployment of AI in project management. The collective viewpoint underscores the significance of industry-specific knowledge in leveraging AI to make well-informed decisions in an environment increasingly driven by data [45] [10] [18][60][42][47].

Professionals need to evolve and master these pivotal competencies to stay abreast of industry shifts and lead in shaping the future of marketing project portfolio management [10][17]. A robust culture of innovation, alongside a focus on data and analytics, is essential for the successful adoption and integration of AI, enabling professionals to harness its full potential [33]. The expertise specific to the industry is crucial for the effective application of AI in project management, equipping professionals with the necessary insight for informed decision-making in a data-centric landscape [60][47][17]. Ultimately, integrating AI into project management demands the development of essential data science and coding skills, coupled with solid industry knowledge. This integration calls for ongoing learning and skill enhancement to navigate the evolving AI-powered project management terrain [11]. By developing these competencies, professionals can leverage the opportunities and changes AI introduces, ensuring their continued success in this AI-driven era.

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WHAT BROADCASTER CHARACTERISTICS INFLUENCE GENERATION Z'S IMPULSE BUYING? CASES IN LIVE STREAMING ON SHORT VIDEO APPS

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ABSTRACT

In today's digital landscape, short video apps like TikTok have gained immense popularity among Generation Z, with live streaming shopping emerging as a dominant trend. Within this context, broadcasters play a pivotal role in product promotion. Drawing upon the S-O-R (Stimulus-Organism-Response) model, this study investigates how broadcaster characteristics—specifically attractiveness, expertise, and trustworthiness—affect Generation Z's urge to buy impulsively. The research gathered insights from Malaysian Generation Z individuals actively engaged in live streaming shopping on short video apps. Findings reveal that broadcaster characteristics, including attractiveness, expertise, and trustworthiness, exert a substantial impact on consumer arousal and Generation Z's urge to buy impulsively. These results underscore the pivotal role of broadcasters in shaping consumer behaviours in live streaming commerce. This study provides valuable insights for marketers in the dynamic realm of live streaming, driving impulse buying among this young generation.

Keywords: Generation Z, Broadcaster, Impulse Buying.

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**THE RELATIONSHIP BETWEEN CONTENT MARKETING, CUSTOMER
ENGAGEMENT AND BRAND LOYALTY ON CHINESE PUER TEA BRANDS:
CHATBOTS AS A MODERATOR**

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ABSTRACT

In the Internet environment, We Media has become an important supplementary force to mainstream media and plays an important role in brand publicity and promotion. In particular, the rise of online live broadcasts and the emergence of short video platforms such as Douyin in recent years have innovated tea industry. In this way, a new tea sales platform has been built, and it has also become a platform for direct communication with consumers. The emergence of We Media platforms has significantly improved the freedom of information dissemination, which is both an opportunity and a challenge for the tea industry. Faced with the impact of artificial intelligence on We Media content and customer-brand communication, and the theoretical deficiencies and practical challenges of brand loyalty in Chinese Pu'er tea companies, this article introduces the idea of mass communication in communication science on the basis of drawing on international research results. In the field of brand internationalization research, it is pointed out that the motivation for audiences to contact self-media brand pages/brand public accounts is to satisfy their own needs for media content. Therefore, this study uses Uses and Gratifications (U&G) theory as the theoretical basis, introduces the concepts of content marketing and customer participation, and reveals the impact mechanism of Pu'er tea brand content marketing and customer participation on brand loyalty with the participation of chatbots and analyze it.

Keywords: Brand Loyalty, Content Marketing, Customer Engagement, Chatbots, AI.

1. INTRODUCTION

Tea is a very important natural beverage and is considered one of the three most important beverages in the world. The tea industry is one of the important pillar industries of China's agriculture. Its tea garden area and tea industry rank first in the world. Among competitors of similar products, according to Porter's "Five Forces Model", tea's substitute products such as coffee, purified water, various juice drinks, etc. are dividing the tea market share, and their market positions have been greatly affected. challenge. In a market context where customers are becoming increasingly picky, tea companies are under increasing marketing pressure. How tea companies can break through the above-mentioned opportunities and challenges, conduct deep market penetration, and increase the market share of tea products is a very important issue.

Since in the tea marketing process, tea is a product that can be purchased and consumed repeatedly, therefore, how to cultivate tea customer loyalty behavior has become the source of the company's core competitiveness. With the increase of new tea drinks and new brands, tea customers are increasing day by day. customers will be influenced by tea brands in the process of purchasing tea, and their purchasing behavior depends to a certain extent on their loyalty to the brand. Brand loyalty is a potential intangible asset of a company. If a company wants to have a place in the competitive market, it must establish a good emotional connection with customers. As products become increasingly homogeneous, customers have become the main factor determining corporate competition. With the continuous deepening of global economic integration, many multinational brands have entered the Chinese market; at the same time, as time goes by, market competition has changed from product-led to brand-led. If tea companies want to develop the tea market, they need to continuously improve customers' brand loyalty.

However, there are currently few studies on the relationship between customer participation and brand loyalty in tea brand building. If tea brand customers with high loyalty behavior can be cultivated, it can bring stable income and net profit inflow to the company, and can also save the company a lot of publicity expenses and later customer maintenance costs. More importantly, in the competition of homogeneous products, customers with high loyal behavior can help companies naturally resist other competitors, thereby consolidating the company's market position and share.

For tea brands, social media tea communication is both an opportunity and a challenge. According to research, the overall brand communication power of the tea brand is slightly insufficient. Nowadays, in the great wave of We-media, the channels for individuals to obtain and disseminate information are characterized by diversification and convenience. The rapid development and popularization of artificial intelligence technology is a distinctive feature of this era. Artificial intelligence, machine learning and natural language processing are profoundly changing the way organizations work. Excitement around AI is growing as data continues to pour in and AI systems are developed to understand the data to solve business challenges.

From the above analysis, we can see that China's tea brand development has great potential, but the current situation is worrying. How to establish a brand marketing communication theory that conforms to the theoretical reality of Chinese enterprises is a question that requires in-depth consideration. However, there is currently no systematic theoretical analysis and empirical research on the marketing communication practice of tea brands under China's national conditions in the academic community. Therefore, using an inter-sectional theoretical perspective that combines marketing and communication and adopting new methods to conduct theoretical and empirical research on tea brand marketing communication will have important theoretical value and practical guidance.

2. LITERATURE REVIEW

2.1 Content Marketing

Although different literature have different definitions of content marketing, based on the consensus reached in various literature and the direction of research development, this study plans to use the Content Marketing Society (Content Marketing Society) Institute's definition: Content marketing is focused on creating and disseminating valuable, relevant and continuous content. A strategic marketing tool that attracts and retains a clearly defined audience and ultimately makes a profit. This definition not only emphasizes that the content should be entertaining, informative or inspiring, but also relevant to the brand and should have continuity.

2.1.1 Functional Information

Social media users' motivations for functional information needs include using information-related media to satisfy their needs. In addition to the mass media already involved in obtaining the latest developments in related events, seeking advice, and avoiding risks, customers can also gain more benefits by using social media. Advanced and convenient communication methods. In social media-related research, this type of need is called information (Sangwan, 2005).

2.1.2 Entertainment Information

In addition to the entertainment and escaping from reality that are already involved in mass media, social media users' motivations for entertainment needs include the pursuit of fashion and status by using social media. In social media related research, this type of needs is called entertainment (Papacarissi & Rubin, 2000).

2.1.3 Social Interaction & Brand Interaction

The motivations of social media users for social needs include maintaining the exposure of social circles, reducing life stress and anxiety, and reducing loneliness, which are already involved in mass media. Because of the characteristics of social media, customers using social media can also participate in media interactions. In social media related research, this type of needs is called

socialization and interaction (Leung, 2009; Leung & Wei, 2000).

Specifically, interactions on social media are divided into firm-customer interactions and customer-to-customer interactions. These two aspects of interaction complement each other and jointly promote Social media marketing communications for businesses (Gallaughier & Ransbotham, 2010). As more and more brands invest in social media marketing, the author believes that it is necessary to further distinguish customers' social interactions based on social media into social interactions between customers (social interaction) and interactions between customers and brands (brand interaction).

2.1.4 Self-concept

Self-concept is defined as an individual's relatively stable view of himself in different situations (Nurmi, 2004). In the process of using social media, people can obtain the satisfaction of self-concept expression, that is, the satisfaction of expressing their own thoughts and beliefs. In social media-related research, this type of need is called self-concept.

2.2 Customer Engagement

Customer participation originated from the field of service marketing and was used to represent customer behavior related to service production and delivery. At that time, customer participation was generally used to represent this behavioral concept.

2.2.1 brand Knowledge

Brand knowledge refers to the information they obtain when they recognize brand awareness and brand image (Yu Wei, Wang Xingyuan, 2008).

2.2.2 Brand Trust

Emotional trust refers to the attitude of trust, which is generated by the interactive experience between customers and brand service representatives. (Johnson & Grayson, 2005).

2.2.3 Online Engagement

Online Engagement is the behavior of customers such as reading, liking, and forwarding on social media brand pages/public accounts (Gummerus et al., 2012).

2.3 Chatbots

Chatbots refer to computer programs that imitate human language and interact with humans through text-based dialogue systems (Zumstein & Hundertmark, 2017). Because they can mimic human conversations, they are able to engage customers on a social level, which distinguishes them from self-service technologies (Pizzi et al., 2021; van Doorn et al., 2017).

2.4 Brand Loyalty

there are one-dimensional views, including behavior theory and attitude theory. The behavioral perspective regards brand loyalty as a behavior: customers not only like and prefer a specific brand, but also make repeated purchases for this specific brand.

2.5 Theoretical Perspective

Mandan (2021) noted that the theory of uses and pleasure is originated in the communication literature, which seems as crucial to comprehending and assessing the comprehension of social media marketing. According to this theory, people search for media that will satisfy their wants and provide them with the greatest level of satisfaction. Although this theory is applicable to social media, it has received little attention in the literature on social media and marketing. For this reason, in order to aid in and provide an explanation for how the content marketing and customer engagement utilize chatbots under the digital media platform to follow the brands and products, researchers employ the uses and gratification theory in this work.

3. HYPOTHESIS DEVELOPMENT & RESEARCH MODEL

According to Chen Lou and Quan Xie (2020), the amalgamation of the entertainment and social value of customer-generated brand content, coupled with the functional value of the YouTube channel, collectively affects customers' assessment of their experience. Consequently, this helps to bolster brand loyalty. The results suggest that the coordination of functions has a significant influence on the precision and dependability of peripheral communication channels (Juhee Kang, Liang Tang, and Ju Yup Lee, 2013). According to Fariba Esmailpour's perspective in 2015, there is a beneficial influence of perceived quality (specifically, the impact of functionality) on brand loyalty. Zainuddin et al. (2007) conducted a study that identified several relationships between functionality and the three aspects of brand loyalty segmentation. S.R. Nikashemi and Naser Valaei's 2018 study demonstrates that brand personality indirectly influences intended brand loyalty through functional consistency. Thus, the following hypothesis is proposed:

H1a: functional information is positively related to brand loyalty.

In their study, Hyejeong Kim and Linda S. Niehm (2009) examined the impact of entertainment on loyalty intentions in the context of online garment shopping. Kondo, Fumiyo N., Hirata, Jiro, and Akter, Shahriar (2010) identified seven categories of measured variables for entertainment, including email, SMS, MMS, music, ringtones, video streaming, and games. These categories have varying effects on the behavior-satisfaction-loyalty network. Additionally, their research indicates that entertainment information significantly influences brand loyalty. Chen Lou and Quan Xie (2020) conducted a study that analyzed the relationship between functional information and brand loyalty, as well as the relationship between entertainment information and brand loyalty. Florencia Yohandra Suthianto (2023) discovered that there is a relationship between online entertainment factors and e-satisfaction factors, which subsequently influence brand loyalty factors. Masayuki Yoshida et al. (2018) found that the entertainment value of social media pages positively influences the identification of online brand communities.

This recognition, in turn, has a beneficial impact on brand-related social media engagement, ultimately impacting brand loyalty. Thus, the following hypothesis is proposed:

H1b: entertainment information is positively related to brand loyalty.

The study conducted by Bashokouh, Naser Seifollahi, and Allahyar beigi firoozi (2020) discovered that attributes associated with parasocial interactions had a moderating effect on the connection between customers' relationships with companies and their loyalty towards those businesses. In a study conducted by Meysam Shir-Khodaei et al. (2017), it was discovered that social identity plays a crucial role in shaping brand communities on social networks. This influence has a direct and beneficial impact on brand loyalty. The findings of Masayuki Yoshida et al. (2018) emphasize the significance of brand-related social media engagement in influencing behavioral brand loyalty. Additionally, their research offers fresh perspectives on the factors that contribute to customer involvement in brand-related social media usage. Thus, the following hypothesis is proposed:

H1c: social interaction is positively related to brand loyalty.

The study conducted by Hongwei He, Yan Li, and Lloyd Harri (2012) validates the crucial significance of brand identity in fostering brand loyalty. Liezl-Marié van der Westhuizen's (2018) study concluded that brand experience plays a crucial role in validating an individual's relationship to a brand and fostering brand loyalty. The research conducted by Gen LI, Juan LI, and Xixiang SUN (2019) demonstrated that interaction-based green brand equity has a noteworthy influence on brand loyalty. the study (Jane Hemsley-Brown, Ibrahim Alnawas) (2016) found that brand enthusiasm and self-brand connection affect the brand loyalty relationship. Thus, the following hypothesis is proposed:

H1d: brand interaction is positively related to brand loyalty.

Eun-Ho Kim et al. (2021) found that customers with a strong sense of interdependence, irrespective of their perceived levels of interactivity and openness, demonstrate increased parasocial interaction, customer participation, and brand loyalty. A study conducted by Juhee Kang, Liang Tang, and Ju Yup Lee (2013) revealed that customer loyalty to brands is influenced by self-congruity. In their 2016 study, Kem Z.K. Zhang et al. introduced the concept of self-consistency, also known as self-factor, and its influence on brand loyalty. In their study, Ahmed Rageh Ismail et al. (2020) discovered that self-concept and value consciousness significantly impact brand loyalty among Generation Z buyers. In their study, Archana Nayak Kini et al. (2024) investigated the relationship between self-brand relationships, brand engagement, and brand loyalty among customers. Thus, the following hypothesis is proposed:

H1e: self-concept is positively related to brand loyalty.

Hongwei He's study in 2011 proved that brand identification and brand knowledge have substantial direct and indirect impacts on the traditional factors that influence brand loyalty, such as perceived value, satisfaction, and trust. Furthermore, the investigation validated the significant influence of brand identification on the establishment of brand loyalty and highlighted the

intermediary function of brand identification in the progression from brand identification to brand loyalty. Thus, the following hypothesis is proposed:

H2a: brand knowledge is positively related to brand loyalty.

A study conducted by Reham Shawky Ebrahim in 2019 discovered that social media marketing has a direct impact on brand loyalty and an indirect impact on brand equity through the establishment of brand trust. The study placed significant emphasis on the importance of trust. Evi Yusniar's (2022) research is anticipated to offer valuable insights for companies employing social media as a digital marketing tactic to generate innovative, authentic, and beneficial content for social media users, thereby fostering customer trust and loyalty. In his research, Geok Theng Lau (1999) argued that trust in a brand is crucial and plays a significant role in fostering brand loyalty. Thus, the following hypothesis is proposed:

H2b: brand trust is positively related to brand loyalty.

The research conducted by Katherine Barnett et al. (2016) revealed that customers who engaged with companies on social networking platforms like Pinterest had positive brand experiences. This finding aligns with prior studies that have shown a link between pleasant brand experiences and higher levels of brand loyalty. The research conducted by Tahir M. Nisar and Caroline Whitehead in 2016 provides a comprehensive analysis of the motivations behind online brand engagement and investigates user behavior and loyalty. Thus, the following hypothesis is proposed:

H2c: online engagement is positively related to brand loyalty.

Yang Cheng and Hua Jiang (2020) discovered that the employment of chatbots provides users with utilitarian information, hedonic amusement, and technical media appeal. Social presence and contentment are strong predictors of user happiness with the chatbot service provided by their preferred brand. Conversely, the perceived privacy dangers linked to the employment of chatbots diminished customer happiness. The study moreover demonstrates that user satisfaction has a favorable influence on the sustained intention to utilize chatbot services and customer loyalty. According to Crystal T et al. (2021), well-crafted artificial intelligence chatbots can assist marketers in creating successful brand marketing tactics. Their study discovered that the IQ and EQ of artificial intelligence chatbots can be better understood by using a multidimensional social support model. This model helps to explain customers' satisfaction with communication, which in turn promotes emotional attachment and purchase intention. Ultimately, it helps to strengthen consumers' loyalty to the brand. AI-powered chatbots revolutionize customer service by offering tailored assistance and aggressively advocating marketing tactics. The utilization of artificial intelligence enhances the delivery, customization, and evaluation of content in social media and influencer marketing. The combination of artificial intelligence and predictive analytics has the ability to forecast consumer behavior, allowing for accurate targeting and optimization of the customer journey in order to enhance brand loyalty (Hafize Nurgul Durmus Senyapar, 2024). According to the author, the progress of artificial intelligence will allow content marketing to better connect with customers and gather their insights more accurately. This will result in increased customer loyalty to the brand and

improved brand loyalty (Shang-Fang Hsu; Shyhnan Liou, 2019). Thus, the following hypothesis is proposed:

H3a: The positive relationship between functional information and brand loyalty is stronger when chatbots accessing is high.

H3b: The positive relationship between entertainment information and brand loyalty is stronger when chatbots accessing is high.

H3c: The positive relationship between social interaction and brand loyalty is stronger when chatbots accessing is high.

H3d: The positive relationship between brand interaction and brand loyalty is stronger when chatbots accessing is high.

H3e: The positive relationship between self-concept and brand loyalty is stronger when chatbots accessing is high.

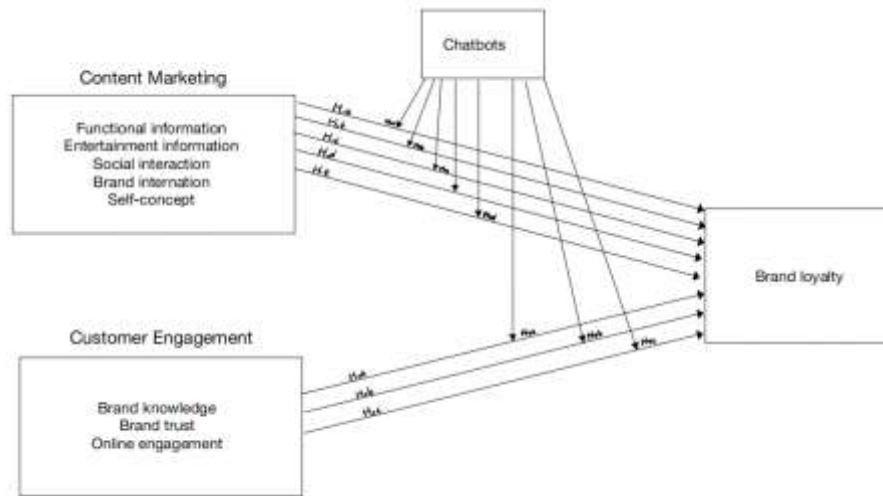
Several firms are currently employing chatbots with artificial intelligence to enhance corporate user interaction and drive higher conversions and sales. Abayomi Oluwaseyi Ikumoro (2019). Yang Cheng and Hua Jiang's 2022 study explores how artificial intelligence (AI)-powered chatbot marketing fosters connections between brands and their customers. It also examines how this relationship marketing approach influences online customer behavioral intentions. According to the research findings, the quality of the AI chatbot service has a significant impact on customers' loyalty to the e-brand. The article by Farrukh Shahzad et al. (2024) explores the impact of AI chatbot service quality on consumer trust and its significant role in fostering e-brand loyalty. Ojapaska (2018) conducted a study that analyzed the factors that influence the positive or negative effects of chatbots on customer engagement, and the differences between chatbots and other communication channels used to boost customer engagement. nt. Khonkanen and Evelina (2023) conducted a study to examine the influence of chatbot marketing on customer-brand connections and engagement in the Finnish fashion industry. The primary aim was to identify strategies for enhancing consumer engagement through chatbot marketing.

H4a: The positive relationship between brand knowledge and brand loyalty is stronger when chatbots accessing is high.

H4b: The positive relationship between brand trust and brand loyalty is stronger when chatbots accessing is high.

H4c: The positive relationship between online engagement and brand loyalty is stronger when

chatbots accessing is high.



4.CONCLUSION

4.1 Theoretical Implications

At the moment, the Chinese tea industry still needs theoretical research on brand social media marketing. Despite the growing popularity of social media content marketing research in marketing, communication, and related fields, most of the literature still primarily focuses on reviewing and critiquing Western social media research theories. This study aims to introduce theoretical innovations in social media content marketing for Chinese Pu'er tea brands and establish a corresponding theoretical foundation for Chinese tea companies' international marketing strategies.

The Uses and Gratifications (U&G) theory in communication studies continues to advance the development of brand marketing communication theory, which is centered around social media. The interconnection between the theories of integrated marketing communication and uses and gratifications (U&G) forms a sophisticated theoretical framework. Nevertheless, there is a lack of agreement among scholars over the definition of content marketing, and there is a scarcity of empirical research on the use of brand social media content marketing. The absence of a theoretical study hampers academics' comprehension of content marketing and the efficacy of corporate marketers' utilisation of social media content marketing to enhance brand worldwide marketing communications.

This study aims to examine human communication behaviour and psychological cognition. An analytical framework is established to analyse the brand loyalty provided by

content marketing and customer engagement. The concept of chatbot participation is introduced, and theoretical research on content marketing and customer engagement is expanded. A closed analytical framework is constructed to clarify the role of chatbots. Content marketing and customer engagement are critical for fostering brand loyalty.

Simultaneously, the examination and investigation of chatbot mechanisms in terms of enhancing brand loyalty have partially compensated for the deficiencies in both domestic and international research. Furthermore, they offer valuable insights and guidance for enterprises' marketing endeavours.

Most of the brand marketing communication research on social media is based on international social media platforms and well-known brands from developed countries. However, China's local tea companies are in a period of important strategic opportunities for "going global" and urgently need to understand how to better Boost brand loyalty by leveraging modern tools of AI in social media marketing.

Despite scholarly explorations based on relevant theoretical studies, there is still a lack of empirical research on the development mechanisms of social media Content Marketing and Customer Engagement in relation to the simultaneous development of Brand Loyalty. This study gathered data from Chinese social media platforms, specifically WeChat, Tiktok about individual engagement with Pu'er tea brands. The study aims to examine the relationship between Content Engagement (Functional Information, Entertainment Information, Social Interaction, Brand Interaction, and Self-Concept), Customer Engagement aspects (Brand Knowledge, Brand Trust, and Online Engagement) and Brand Loyalty, while considering the moderator of chatbots. Specifically, the research seeks to understand how Content Marketing and customer Engagement impact Brand Loyalty.

The study utilised structural equation testing to examine the relationship between Content Marketing, Customer Engagement, and Brand Loyalty. The findings confirmed that Chatbots play a moderating role in this process. A comprehensive model was developed, incorporating multiple theories, to ensure the research's scientific rigour. This study offers a theoretical foundation and practical recommendations for Chinese Pu'er tea companies to effectively execute marketing strategies.

4.2 Practical Implications

According to We Are Social, a media research organisation based in Singapore, and the Global Web Index (GWI), there are currently 5.16 billion Internet users worldwide. According to the Internet Index's findings, there are currently 5.16 billion people who use the Internet and 4.76 billion who use social media worldwide. This accounts for around 59.4% of the entire global population. Individuals between the ages of 16 and 34 are more inclined to use social networks rather than search engines while seeking brand information. The global number of social media users grew by 3.0% compared to the previous year, which is equal to an additional 137 million individuals. Additionally, digital advertising spending surged by 15.2% compared to the previous year, resulting in an increase of US\$88 billion. Investment in social media advertising has increased significantly since the COVID-19 pandemic, reaching a staggering 2,260 billion US dollars by 2022.

Evidence indicates that brief videos remain highly favoured. In 2023, marketers will increasingly adopt social commerce by leveraging the platform's latest capabilities. The demise of third-party cookies is near. In 2023, marketers should revamp their performance measures by focusing on gathering first-party data and implementing contextual marketing strategies. Gaining insights into your target demographic, identifying their online presence, and comprehending their engagement patterns with companies on the internet will be a crucial aspect of formulating your strategy in 2023 and beyond.

Short video content on the Internet commonly includes subtitles, partly due to Generation Z's preference for them. Social networks continue to invest in these accessibility features, but further progress is still required. In 2022, a poll revealed that 42% of consumers with disabilities struggled to complete an online purchase because they had trouble accessing a website or app.

When utilizing social media content marketing, the author proposes that corporate marketing departments should prioritize meeting consumers' requirements for both functional and entertainment information. This approach aims to enhance brand awareness and foster emotional trust, ultimately leading to the development of brand loyalty among social media followers.

Furthermore, it should be acknowledged that the global expansion of my country's tea industry brands is currently in a rather underdeveloped state. Hence, it may be necessary for relevant government departments to facilitate the involvement of government-led enterprises in establishing a favourable network environment, establishing collaborative channels with international social media platforms, and mitigating the operational costs and risks associated with enterprises' international brand strategies in order to promote the dissemination of brand culture. Offer guidance on policy support.

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AN EXPLORATORY APPROACH TO SENSORY MARKETING IN TOURISM: CREATING INCLUSIVE EXPERIENCES FOR CHILDREN WITH SENSORY PROCESSING DISORDERS

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ABSTRACT

With an emphasis on developing inclusive experiences for kids with sensory processing disorders (SPDs), this study explores sensory marketing in the tourist sector. Although the typical goal of sensory marketing is to improve consumer experiences by appealing to various senses, its potential for inclusivity—especially for those with special needs—has received less attention. Due to their heightened or lessened sensory reactions, children with SPDs sometimes find standard tourism surroundings overwhelming, which can cause discomfort and anxiety. This research investigates how sensory marketing strategies can be adapted to accommodate these children better, ensuring that tourism experiences are accessible, enjoyable, and supportive. By examining the sensory challenges children with SPDs face in conventional tourism settings, the study proposes practical interventions to mitigate these challenges, thereby contributing to a more inclusive and empathetic approach in the tourism industry. The findings aim to raise awareness about the importance of sensory inclusivity and offer actionable insights for designing tourism environments that cater to the needs of all visitors, regardless of their sensory processing abilities.

Keyword: Sensory Marketing, Tourism Marketing, Inclusive Tourism, Sensory Processing Disorder.

1. INTRODUCTION

Tourism is a multi-faceted industry that thrives on the creation of engaging and memorable experiences. At its core, the tourism industry relies heavily on the stimulation of the senses—

sight, sound, smell, taste, and touch—to captivate visitors and leave lasting impressions. This sensory-rich environment has traditionally been designed with the general population in mind, aiming to evoke emotions, build brand loyalty (Riza & Wijayanti, 2018), and enhance visitor satisfaction (M. Ali & O. Ahmed, 2019). However, as the industry evolves, there is a growing recognition of the need to make these experiences more inclusive through design and environment, particularly for individuals with unique sensory needs (Ghazali, Rasidah, et al., 2018b).

One such group that has historically been overlooked in the design of tourism experiences is children with Sensory Processing Disorders (SPDs). Sensory Processing Disorder is a condition where the brain has difficulty receiving and responding to information that comes in through the senses (Ghazali, Rasidah, et al., 2018a). Children with SPDs can be hypersensitive (over-responsive) or hyposensitive (under-responsive) to sensory stimuli, making everyday environments overwhelming or under-stimulating. For these children, a typical tourism experience—characterized by bright lights, loud noises, strong smells, and crowded spaces—can lead to sensory overload, resulting in anxiety, discomfort, and an inability to enjoy the experience (Filipova et al., 2023).

Given the increasing prevalence of SPDs and the growing emphasis on inclusivity (Passarello et al., 2022), it is imperative that the tourism industry considers how sensory marketing strategies can be adapted to better accommodate these children (Hayden & McIntosh, 2023). Sensory marketing, which involves crafting experiences that engage multiple senses, offers a unique opportunity to create environments according to Murwani et al. (2023) that are not only inclusive but also enriching for children with SPDs (Ghazali, Rasidah, et al., 2018b). By thoughtfully considering the sensory aspects of tourism—from the design of physical spaces to the selection of ambient music and scents—industry stakeholders can create experiences that are more accessible and enjoyable for all visitors, including those with sensory sensitivities (Hayden & McIntosh, 2023).

This study seeks to explore the intersection of sensory marketing and tourism, with a particular focus on how these strategies can be employed to create inclusive experiences for children with Sensory Processing Disorders (van den Boogert et al., 2022). The research will begin by examining the specific sensory challenges faced by these children in conventional tourism settings (Gillovic & McIntosh, 2020), drawing on existing literature and case studies (Ghazali et al., 2019). Following this, the study will propose practical sensory marketing strategies that can be implemented to mitigate these challenges, thereby creating more welcoming environments.

The aim of this exploratory approach is twofold: first, to raise awareness within the tourism industry about the importance of sensory inclusivity, and second, to suggest actionable insights and strategies that can be used to design more inclusive experiences (Ghazali, Md. Sakip, et al., 2018). By doing so, this research hopes to contribute to a broader understanding of how sensory marketing can be leveraged to create truly inclusive and supportive environments, ensuring that

all children, regardless of their sensory processing abilities, can enjoy the rich and diverse experiences that tourism has to offer.

2. LITERATURE REVIEW

2.1 Sensory Marketing

Sensory marketing is a multi-dimensional concept that involves the strategic use of the five human senses—sight, sound, touch, taste, and smell (Krishna, 2012) as to create a deep, memorable, and often subconscious impact on consumer behavior and decision-making (Mahmood Khattab, 2024.). The goal is to enhance the overall customer experience, build brand identity, and foster emotional connections between consumers and products or services (Michulek & Krizanova, 2023.).

Table 1: Elements in sensory marketing

| |
|---|
| Sight (Visual Marketing) |
| Definition: Visual marketing focuses on how brands use visual stimuli such as colors, shapes, designs, lighting, and overall aesthetic appeal to influence consumer perceptions and behaviors. This aspect of sensory marketing is based on the idea that people process visual information more quickly and efficiently than other types of sensory information, making sight a dominant sense in consumer decision-making. |
| Application: Brands use specific color schemes to evoke certain emotions (e.g., red for excitement, blue for trust), distinct logos to build brand recognition, and visual storytelling in advertisements to engage consumers. For example, luxury brands often use minimalist and sleek designs to convey exclusivity and sophistication. |
| Sound (Auditory Marketing) |
| Definition: Auditory marketing involves the strategic use of sound, including music, jingles, voice tones, and ambient noise, to create an emotional response or reinforce brand identity. Sound is a powerful tool for creating atmosphere, triggering memories, and enhancing brand recall. |
| Application: Retail stores might play specific types of music to match the brand's personality or influence customer behavior (e.g., slow music to encourage shoppers to linger). Fast food restaurants might use upbeat music to create a lively atmosphere. Additionally, brands often use signature jingles or specific sounds in their ads to make them more memorable. |
| Touch (Tactile Marketing) |
| Definition: Tactile marketing focuses on how the physical feel of a product or its packaging influences consumer perception and behavior. The sense of touch is closely related to judgments of quality and can significantly impact a consumer's purchasing decision. |
| Application: In the fashion industry, the softness of a fabric can suggest luxury and comfort. In product packaging, a smooth, glossy finish might convey a sense of premium quality, while a textured surface might suggest natural or organic qualities. In retail, customers might be encouraged to handle products, as physical interaction can increase attachment and the likelihood of purchase. |
| Taste (Gustatory Marketing) |
| Definition: Gustatory marketing involves using taste to create a sensory experience that can influence brand perception and loyalty. While most relevant to the food and beverage industry, the concept of taste can also extend metaphorically to other industries, |

| |
|--|
| representing an overall "flavor" or essence of a brand. |
| Application: In the food industry, offering samples allows consumers to directly experience the taste of a product, which can lead to immediate purchase decisions. Restaurants and food brands often focus on the flavor profiles of their offerings as a core component of their brand identity. In non-food industries, "taste" might be used in a metaphorical sense, referring to the overall style or aesthetic of a brand. |
| Smell (Olfactory Marketing) |
| Definition: Olfactory marketing is the use of scents to evoke emotions, trigger memories, and enhance the consumer experience. The sense of smell is closely linked to the limbic system, the part of the brain responsible for emotion and memory, making it a powerful tool in creating lasting impressions. |
| Application: Retail environments might use ambient scents to create a specific atmosphere—such as the smell of fresh bread in a bakery or a signature fragrance in a luxury store. Some brands develop signature scents that are consistently used across their stores and products, reinforcing brand identity and ensuring that customers associate a particular smell with the brand. |
| Holistic Sensory Marketing |
| Definition: Holistic sensory marketing refers to the integrated use of all five senses to create a cohesive and immersive brand experience. This approach recognizes that the consumer experience is multi-sensory and that each sense contributes to the overall perception of the brand. |
| Application: A hotel might combine visual elements like elegant interior design with soothing music, soft bedding, pleasant scents, and delicious cuisine to create a comprehensive sensory experience. The goal is to engage multiple senses simultaneously to create a more profound and memorable experience that can differentiate the brand in a competitive market. |

Source: Own processing according to (Dwijia Utama, 2022; Guzel & Dortyol, 2016; Krishna, 2012; M. Ali & O. Ahmed, 2019; Rybowska & Dawidowska, 2024; Silaban Et Al., 2023; Simha, 2020)

2.2 Sensory Processing Disorder (SPD)

Sensory Processing Disorder (SPD) is a neurological condition where the brain has difficulties in receiving, interpreting, and responding to sensory information from the environment (Al-Heizan et al., 2015). This disorder affects how sensory signals—such as touch, sound, light, taste, and smell—are processed, leading to abnormal responses to these stimuli. Individuals with SPD may be overly sensitive (hypersensitive) to sensory inputs, under-responsive (hyposensitive), or experience mixed responses, depending on the sensory context (Filipova et al., 2023). According to Brout (2015) SPD is not officially recognised as a distinct, stand-alone diagnosis in the DSM-5 but typically considered as part of broader neurodevelopmental disorders, particularly Autism Spectrum Disorder (ASD) and Attention Deficit and Hyperactive Disorder (ADHD).

According to Al-Heizan et al. (2015), children with autism who displayed auditory hypersensitivity similar to SPD also showed increased sympathetic responses when loud stimuli were repeated. There have also been reports of visual and tactile processing dysfunctions in the literature (Filipova et al., 2023). Further research has revealed additional sensory processing

issues, including sensory seeking, the incapacity to recognise or avoid stimuli, and sensory sensitivity, in children with autism (Galiana-Simal et al., 2020).

2.3 Inclusive Experiences in tourism for SPD children

With the ongoing rapid expansion of tourism, the hidden inequalities become increasingly evident, requiring more advanced and nuanced evaluations of them (Ghazali et al., n.d.). When taking into account the perspectives of these overlooked groups whose voices are not sufficiently represented and suppressed, the fundamental motif is the subjugation and marginalisation of the 'other' (Gillovic & McIntosh, 2020; Le et al., 2012). Formulated as a hopeful, analytical, and morally upright change, it will be beneficial to advance and broaden the viewpoint of tourism that supports human rights and social justice in the industry and related research (De La Fuente-Robles et al., 2020). The concept of inclusive tourism aims to improve knowledge and understanding of tourism by actively addressing the exclusionary elements of tourism and ensuring that a wider range of people participate in and benefit from tourist activities (Gillovic & McIntosh, 2020).

Considerable focus has been devoted to the economic and environmental viability of the sector (Gnoth, n.d.). Insufficient focus has been given to matters of social sustainability, particularly disregarding the consequences of global ageing and disability, which unquestionably pose obstacles for the future of tourism (Gillovic & McIntosh, 2020).

The fundamental concept that inclusive tourism advocates is to perceive tourism as a catalyst for change, whereby underprivileged communities engage in the ethical creation or consumption of tourism and in the fair allocation of its results (De La Fuente-Robles et al., 2020).

The case study selected as the approach of this research based on real-life condition as there is a distinct need to research a complex phenomenon holistically (Ghazali et al., 2019; Ugwu & Val, 2023). Jelatok Retreat Farm in Negeri Sembilan was chosen as a case study for this research due to two criteria. First, it is a farm that promotes natural environment and nature as a short gateway destinations for city folks as Negeri Sembilan is about less than 2 hours' drive from Klang Valley. Second, facilities at Jelatok Retreat farms fits to the Design Criteria Checklist (DCC) that evaluate the effectiveness, convenient and fit of a premise or a location for autism children. The checklist was developed by Ghazali, Rasidah, et al. (2018b) in their research on sensory design for Autism Centre. Among of the criteria are planning and sense of space, compartmentation, building scale, safety and security, wayfinding, accessibility, quiet room, acoustic, colour, smell and lighting.

3. METHODOLOGY

The study will employ two primary qualitative methods: observation and semi-structured interviews, with an exploratory approach aimed at raising awareness about sensory inclusivity within the tourism industry. The respondents will be both SPD children over 12 years old, under

18 years old as well as their parents and parents of SPD children who are under 12 years old. These respondents are the patronage of Jelatok Retreat Farm in Negeri Sembilan. The respondents were chosen based on the need to tap on their experiences that they can describe while participating in this research (Knobloch et al., 2014)

3.1 Observation

Observation will involve the systematic recording of behaviors and interactions within a natural setting. In the context of resort patronage, observation will allow researchers to directly witness how guests interact with the environment, the services, and other patrons, with a particular focus on sensory inclusivity (Guzel & Dortyol, 2016). This method can be either participatory, where the researcher actively engages in the setting, or non-participatory, where the researcher remains an external observer (Ugwu & Val, 2023).

For this study, non-participatory observation will be chosen to minimize researcher influence on the participants' natural behavior (Ugwu & Val, 2023). Observations will be conducted in various areas of the resort, including the reception, dining areas, recreational facilities, and social spaces. Special attention will be given to how different sensory elements, such as lighting, sound, and textures, influence the experiences of guests, particularly children with Sensory Processing Disorder (SPD). The data collected will include notes on guest behavior, patterns of movement, interactions with staff, and engagement with different amenities, highlighting aspects related to sensory inclusivity (Hayden & McIntosh, 2023).

3.2 Interviews

Semi-structured interviews will complement observational data by providing deeper insights into the reasons behind observed behaviors, especially concerning sensory experiences. This method will involve open-ended questions that allow participants to express their thoughts and experiences in their own words (Yang & Cornelius, n.d.). Interviews will be conducted with parents of children with Sensory Processing Disorder (SPD), who are likely to have a keen awareness of how sensory environments affect their children.

The interview guide will be designed to explore key themes such as the motivations for choosing the farm, perceptions of the farm experience, satisfaction with services, and factors influencing repeat patronage (De La Fuente-Robles et al., 2020). Additionally, it will include questions related to the sensory experiences of their children and the inclusivity of the farm environment. The flexibility of semi-structured interviews will enable the researcher to probe further into unexpected topics that may arise during the conversation, enriching the data collected and providing actionable insights into designing more inclusive experiences (Yang & Cornelius, n.d.).

1. DATA ANALYSIS

Data from observations and interviews will be analyzed using thematic analysis, a method that involves identifying, analyzing, and reporting patterns (themes) within the data (Godovykh &

Tasci, 2020). This process will include familiarization with the data, generating initial codes, searching for themes, reviewing themes, and defining and naming themes (Ugwu & Val, 2023). Observational data will first be coded according to patterns of behavior, interaction, and use of resort facilities, with a specific focus on sensory inclusivity. These codes will then be compared with interview data to identify recurring themes and discrepancies between observed behavior and reported experiences. Thematic analysis will allow for the synthesis of diverse data sources, providing a comprehensive understanding of farm patronage and sensory inclusivity (Ugwu & Val, 2023).

2. FINDINGS AND CONCLUSION

The study will also explore how sensory marketing can be leveraged to create truly inclusive and supportive environments. It is expected to find that specific sensory elements, such as calming colors, soothing sounds, and comfortable textures, play a crucial role in making the farm experience enjoyable for all guests, particularly children with SPD (Le et al., 2012). Parents of these children may cite these sensory-friendly aspects of the farm as critical factors in their decision to return (Gillovic & McIntosh, 2020). These insights, drawn from the combination of observed behaviors and personal accounts, will highlight the importance of both tangible and intangible elements in shaping farm patronage and will suggest actionable strategies for designing more inclusive experiences within the tourism industry (Hayden & McIntosh, 2023).

By raising awareness about the importance of sensory inclusivity and providing practical recommendations, this research aims to contribute to a broader understanding of how farms, resorts and other tourism destinations can better accommodate the needs of all visitors, ensuring that everyone, regardless of sensory processing abilities, can enjoy rich and diverse experiences (Bernaki & Marso, 2023).

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UNDERSTANDING ONLINE REPURCHASE INTENTION: THE MODERATING ROLE OF WEBSITE REPUTATION (CASE STUDY ON INDONESIAN GENZ)

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ABSTRACT

Internet users reached 77% of Indonesia population, but online shopping is still low. This research aims to examine the influence of e-service quality, web design and gender on online repurchase intention, and the role of website reputation as a moderating. An online questionnaire was distributed to 100 generation Z selected using a purposive sampling technique. Hierarchical Regression Analysis result show that service quality and web design influence online repurchase interest. This research also found that website reputation plays a moderating role, but its influence is somewhat different on the relationship between the two X variables on online repurchase intention. The results of simple slope analysis reveal that reputation has a significant effect on improving service quality on online repurchase intentions, both when reputation is low and high. Meanwhile, website reputation only has a significant effect on the influence of improving web design on online repurchase intentions, when reputation is low. But when reputation is high, improvements in website design do not significantly influence online repurchase intentions. Meaning: if the website's reputation is high enough, then the modest design is enough to make consumers want to shop again on the online platform. This finding is not different between male and female.

Keywords: Online Repurchase Intention, E-Service Quality, Web Design, Website Reputation, Hierarchical Regression Analysis.

UNLOCKING ORGANIC FOOD MARKET THROUGH DIGITAL MARKETING: A COMPREHENSIVE BIBLIOMETRIC ANALYSIS

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ABSTRACT

The popularity of organic food is growing due to increasing public awareness about the importance of a healthy lifestyle. However, the market share for organic food in developing countries like Indonesia remains a challenge. Marketing innovations for organic agricultural products through online marketing channels are increasingly being implemented to develop the organic food market. However, there are still few studies that have conducted studies regarding future research directions related to organic food products in the digital market. This research aims to (1) identify the main research themes related to organic food and digital marketing; (2) identify the types of digital marketing approaches on organic food industry; (3) identify the future research agenda. We conducted comprehensive bibliometric analysis, such as (i) performance analysis using publication-related metrics, (ii) science mapping with co-word analysis and (iii) visualization network analysis. This study analysed 554 qualified articles published on Scopus. Based on VOS Viewer software, the prominent research themes in organic food nowadays are e-grocery food, organic food on social media and sustainable food marketing. The digital marketing approaches that are developing in organic food research includes social media, branded-mobile application, and websites. Further research considered to uses a mix method approach which discusses the development of the internet of things in the organic food market.

Keywords: Marketing Innovation, Digital Marketing, Organic Food, Social Media, Bibliometric Analysis.

1. Introduction

Environmental sustainability in the global food system is a significant challenge this century. Organic farming is one alternative to maintain the balance of nature, sustainable food consumption and brings great benefits for local farmers (Annunziata & Vecchio, 2016). The

popularity of organic food products is expanding, especially since the onset of the COVID-19 pandemic. Global sales of organic food & drink increased by 15 percent to 129 billion US dollars in 2020 (Ecovia Intelligence 2020). The market reported the highest growth in terms of revenues this year. The 17 billion US dollar increase was brought about by the pandemic elevating consumer interest in organic foods.

Several studies have revealed that many consumers have a positive attitude toward organic food, but regular purchases of organic food are still low (Mkhize & Ellis, 2020; Pearson et al., 2011; Septiani et al., 2019). Organic food literacy plays an important role in filling the gap that exists between consumer attitudes and behaviour. Regarding consuming organic food, literacy refers to a person's ability to understand and confidently make decisions that affect their health and the sustainability of food systems. (Cullen et al., 2015). Increasing organic literacy in the community is expected to encourage buying interest and the development of a wider organic food market (Sumarwan et al., 2022).

Currently, the use of digital marketing in agricultural sector products is increasing. In addition to being an alternative in brand strengthening and product promotion, digital marketing through social media is also effective for conducting marketing campaigns (Kaplan & Haenlein, 2010). In fact, several previous studies (Pilař et al. 2021; Nelson & Fleming 2019; Choudhary et al. 2019) stated that social media can influence consumers in their food purchasing behavior. Social media in the organic food industry plays an important role in building organic food literacy. The information conveyed through social media shapes consumer knowledge, leading to their interests, and buying behaviour (Javed et al., 2022; Najib et al., 2022; Seyyedamiri & Tajrobeikar, 2019) and can be used as a policy measure to increase food literacy (Zhou et al. 2018; Steils & Obaidalahe 2020).

The existence of COVID-19 pandemic has accelerated the use of digital marketing in fresh food products, including organic food. In addition, healthier lifestyle changes are also a driver of increasing organic food purchases through digital platforms. Based on an analysis of social media Twitter in 2020, it is known that organic food is the word most frequently communicated in the hashtag #healthyfood (Pilař et al. 2021). This is inseparable from the role of the influencer community which can convey knowledge, experiences, attitudes, opinions and values through social media (De Veirman et al. 2017; Childers et al. 2019). Previous research (Lou & Yuan 2019; Pilař et al. 2021) found that the influencer community has a very large influence in shaping people's interest in the field of healthy food.

Research on digital marketing optimization for market development strategies is limited. To provide comprehensive and reliable results, this study uses comprehensive bibliometric analysis with VOS Viewer software. Bibliometric analysis is a popular and rigorous method for exploring and analyzing large volumes of scientific data that unpack the evolutionary nuances of a specific field, while shedding light on the emerging areas in that field (Donthu et.al 2021).

We reviewed the literature to address the following research questions:

RQ1: What are the prominent research themes pertaining to organic food and digital marketing?

RQ2: What digital marketing approaches have been applied to organic food?

RQ3: What are the future research perspectives regarding organic food in digital market?

2. Literature Review

2.1 Consumer behaviour of organic food

In the scope of consumer perspective, in general, many previous studies have discussed the intention to buy organic food products and what factors influence the purchase of organic food (Lin et.al 2021; Asti et.al 2021; Wu et.al 2023). Due to the popularity of organic food as a futuristic product, organic food research continues to grow both in developed countries and developing countries. Previous studies have shown different results in the context of consumer behavior in each country.

Most consumers in developed countries have a higher understanding of organic product consumption and accept it as part of their lifestyle (Davidovici & Gavrilescu, 2010), but in developing countries, consumers are at the beginning of this process (Radman, 2005). When in developed markets consumers are motivated more by egoistic aspects such as greater perceived health, higher nutritional performance, and better taste of organic produce (Meyer et al. 2015), not so in developing countries such as Indonesia which are larger driven by altruistic motives where they recognize organic food only as an environmentally friendly product (Septiani, Najib & Sumarwan, 2019).

The price factor is still a variable that needs to be improved in the context of the marketing mix of organic food products in developing countries, including in Indonesia (Septiani, Sumarwan, & Najib, 2022). Price is a sensitive factor that can stimulate consumer purchase interest in Taiwan and Spain. If the price of organic food is closer to conventional food, they will consume it more. On the other hand, the results of Jiang et.al (2023) known that besides price, others marketing stimuli such as product, place and promotional strategies (Melovic et.al

2020) had a significant positive relationship with attitude and consumer buying decisions of organic food.

2.2 Organic food and digital marketing

The use of digital marketing, especially social media, has expanded to agricultural products, including organic food. Several producers sell their fresh food products on one or a combination of several platforms, such as marketplaces, social media, social commerce, or quick commerce. Previous studies (Javed et al., 2022; Najib et al., 2022; Seyyedamiri & Tajrobehkar, 2019) state that information conveyed via social media shapes consumer knowledge which leads to their interests and purchasing behavior. In addition, visual or text information shared by friends or people we follow on social media has a major influence on our emotions (Javed et al., 2022). Marketing strategies via social media influencers are also increasingly being used to promote organic brands because they can increase their sales (Folkvord 2019; Pilar et.al 2021; Wu et.al 2023).

Kusno et.al (2022) research found that consumers buy organic black rice through several online platforms such as Instagram, WhatsApp, or marketplaces. Direct purchases from producers are made via WhatsApp but purchases from resellers are made via Instagram or marketplace. The increasing demand and production of organic products has encouraged manufacturers to use all accessible advertising tools to face increasing competition (Folkvord et al., 2020; Ye et al., 2021).

3. Methods

This paper uses the comprehensive bibliometric analysis. We chose Scopus as our main academic literature search tool because of its matching algorithm that enables searches for keyword terms in the titles, abstracts, or full texts of articles sourced from many publishers and websites (Bakkalbasi et al., 2006). Currently, Scopus is acknowledged as a reliable source of data for review paper (Gusenbauer and Haddaway, 2020).

The bibliometric analysis by using Scopus database to identify the most prominent themes in the literature through a clustering process. The content analysis includes a publication trends analysis, keyword analysis and cluster analysis using Vos-viewer software. Based on the search keywords used in the Scopus database with keyword “organic” OR “food” OR “online”; search within article title, abstract, keyword; publication stage is final; and only English paper, then 554 scientific articles were obtained.

4. Findings and Discussion

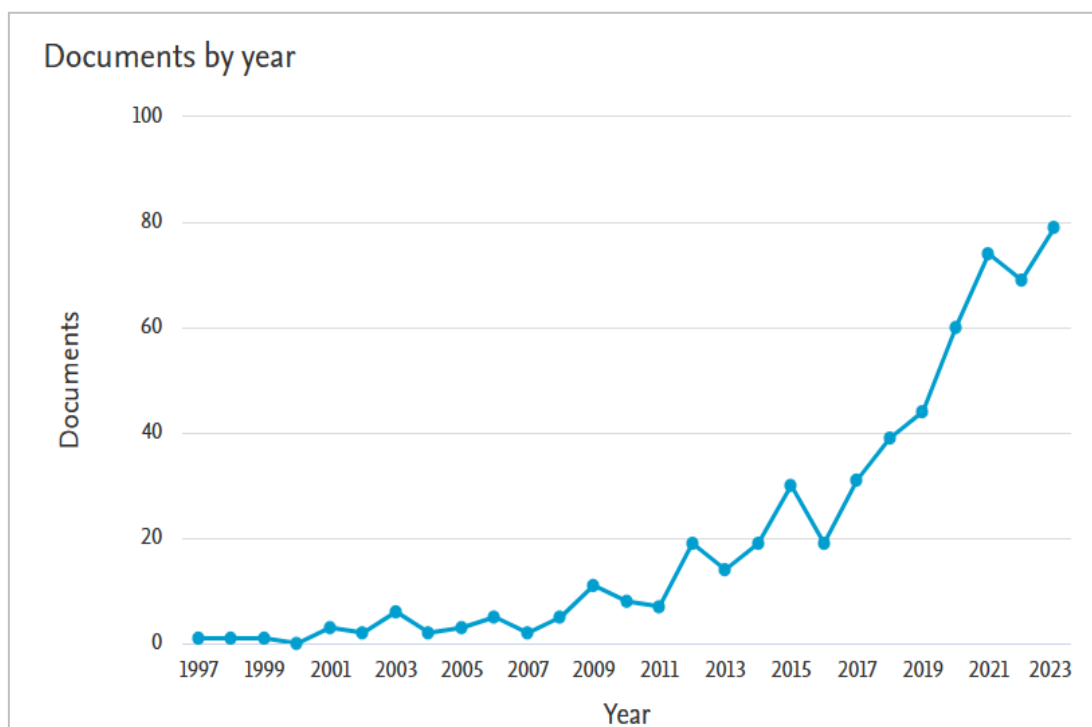
4.1 Bibliometrics analysis

On the bibliometric analysis, we identify the most prominent themes or topics by the researchers. In this section, we follow the steps for conducting bibliometric analysis along with the general guidelines by Donthu et.al (2021). This section presents a summary of the quantitative results. To better understand the prominent themes based on the documentary clusters, we conducted a text-based analysis of the title and abstract fields using the VOS viewer software. Out of the 554 terms examined, number of keywords to be selected 379, and minimum threshold of 5 occurrences selected by the authors. Referring to Donthu et.al (2021), we conducted three types of analysis, namely (1) performance analysis to summarize the performance of prolific research constituents using publication-related metrics, (2) visualization network analysis and (3) cluster analysis.

4.1.1 Publication trend analysis

Research on organic food in the digital market from year to year shows an increasingly positive trend (Figure 1). The latest Scopus data shows that 2023 will be the year with the highest number of papers in history, reaching 79 publications. The increase in online organic food research has begun to appear very rapidly in the last 3 years, contributing around 50 percent to the total number of papers. The Covid-19 pandemic has become a trigger that accelerates public awareness of healthy lifestyles, including the consumption of organic food through online platforms.

Fig 1. The Annual Publication Trend of 554 papers between period 1997 – 2023



We have reviewed and analyzed 434 documents from the Scopus database, as depicted in figure 2. Figure 2 shows that almost 60% of the total papers were published by the US, Germany, Italy, and the United Kingdom, which means that these countries are key players in the improvement of online organic food research. As we can observe, the United States is the largest producing country in the field of online organic food with 104 papers. Next is Germany with 70 papers and China with 68 papers. This shows that the development of online organic food research started in developed countries with a good level of consumer awareness and was supported by the massive use of technology in these countries.

Along with the growing use of technology and health consciousness in developing countries, this is also an opportunity for developing countries. This can be seen from around 15 percent of papers related to organic food online, coming from developing countries.

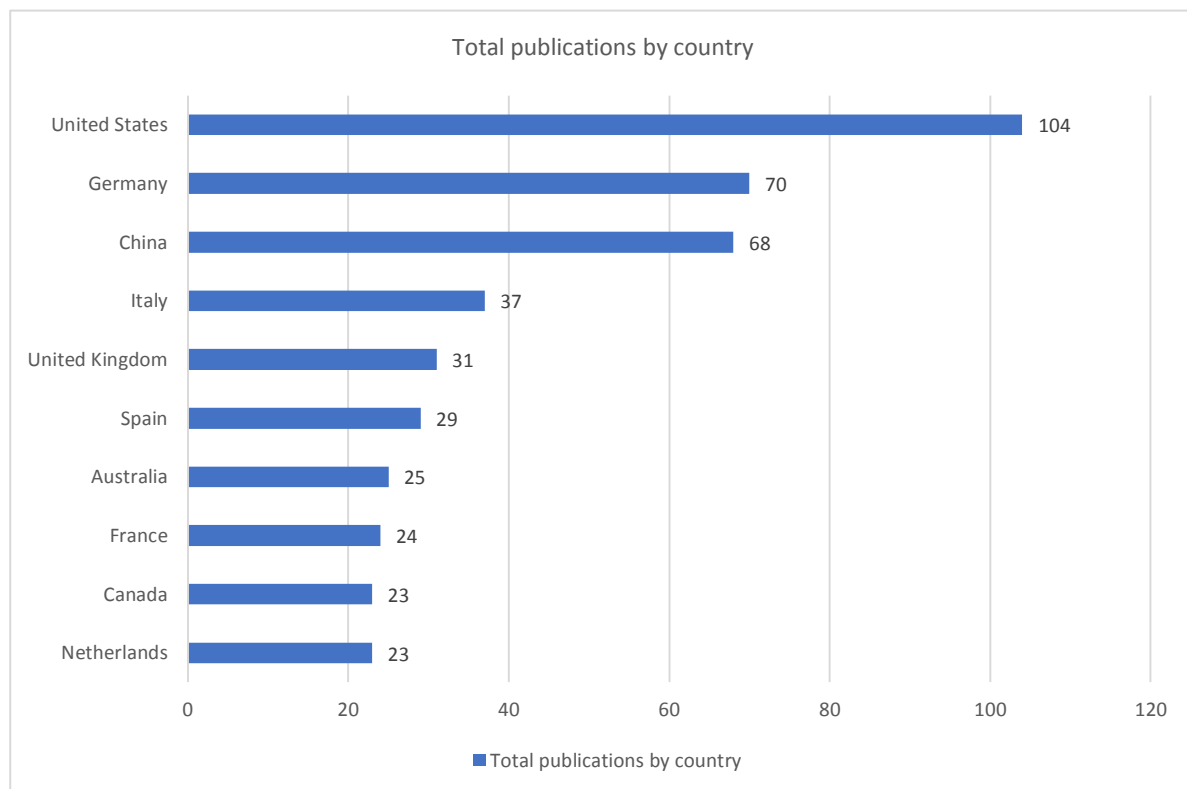


Fig 2. The 10 most productive countries in organic food online

4.1.2 Visualization network analysis

Based on the VOS Viewer output in Figure 3, research topics that are increasingly bright indicate that the topic is still relatively new to be studied further. On the other hand, bubble size represents the number of publications on a particular research topic. Related to the topic of organic food online, research with the keyword's behaviour, trust, sustainable consumption and

social media is a promising research in the future. So that further research can study more deeply about the potential of organic food in the online ecosystem.

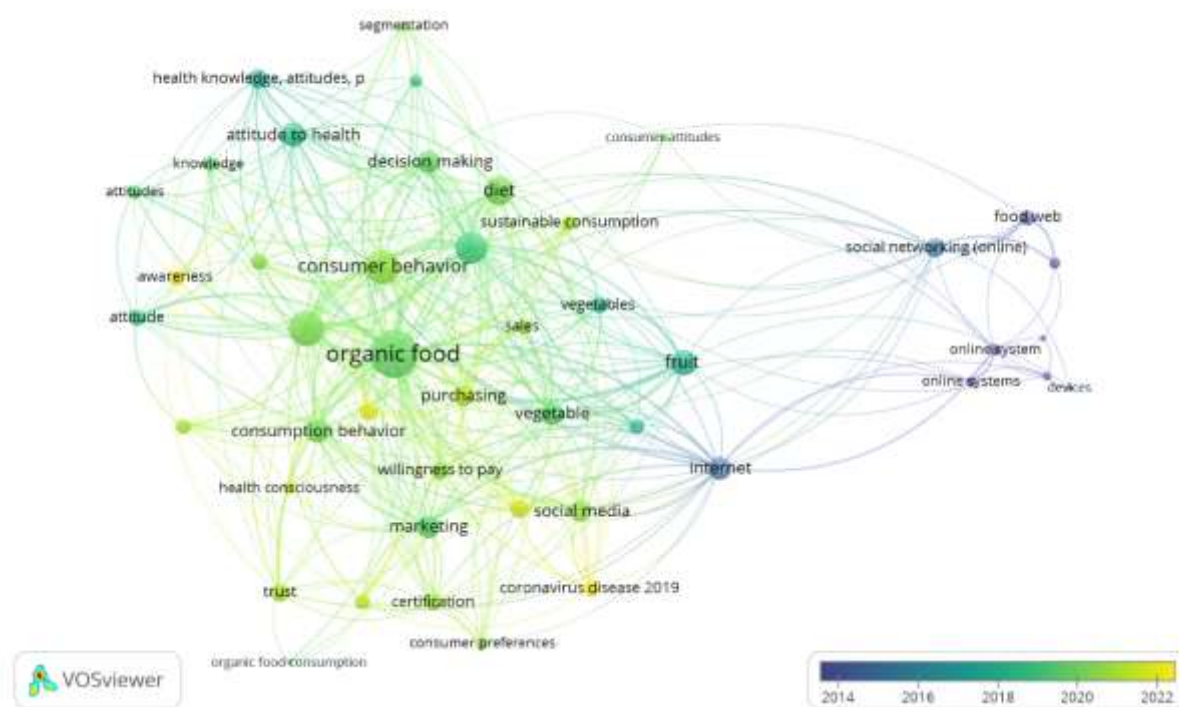


Fig 3. The overlay visualization

4.1.3 Cluster analysis

Cluster 1: e-grocery food

The first cluster consists of several themes related to the use of digital technology in organic food trade such as Devices, Food web, Food webs, Internet, Online analysis, Online systems, Online systems, Social networking (online) and Trace analysis. In general, these themes lead to the concept of agri-tech industry, especially the application of e-grocery. Bjørgen et.al. (2021) explained, e-groceries is an online service that includes delivery of fresh food and ingredients to consumers' homes, delivery from wholesale stores and delivery of agricultural products.

Cluster 2: Organic food social media

Several themes identified in the second cluster include Advertising, Coronavirus disease 2019, Covid-19, Electronic commerce, Organic food consumption, Purchasing, Sales, and Social media. This cluster shows that the digital market for organic food products has great potential for

development. Marketing organic food products through social media and e-commerce is considered effective in shaping consumer perceptions and purchasing behavior (Hilverda et.al 2017; Tariq et.al 2018).

Cluster 3: Organic food intention to buy

In analyzing the intention to purchase a product, theory of planned behavior (TPB) is often used as a theoretical framework. In the TPB it is explained that there are several factors that influence consumer buying intention, namely attitude, subjective norms and perceived behavioral control. Several studies on organic food explain that health consciousness, awareness, and knowledge influence perception (Devi and Singh 2023; Bhutto et.al 2023). This cluster includes themes such as Attitude, Attitude to health, Attitudes, Awareness, Diet, Diet, healthy; Health knowledge, attitudes, practice; and Knowledge which is antecedent factors that influences the intention to purchase organic food.

Cluster 4: Sustainable food marketing

This cluster includes Consumer attitudes, Consumption behavior, Health consciousness, Marketing, Organic food, Purchase intention, Sustainable consumption, and Theory of planned behavior. Organic food marketing is also known as sustainable food marketing. As previously discussed, the growing health consciousness is currently increasing the market for sustainable food. Many previous studies used TPB to measure consumer buying intention in new products, including organic food products (Tariq et.al 2019; Danner and Menapace 2020; Sesini et.al 2023). Furthermore, Wu et.al (2023) found that the role of social media influencers is very large in influencing consumer purchase intention of organic food. It can be concluded that digital marketing plays a crucial role in accessing new markets in the sustainable food industry (Gelgile and Shukla 2023)

Cluster 5: Consumer organic fruit vegetable

Consumer behavior for a product begins with trust, which then creates consumer preferences and willingness to pay for the product. For organic food products such as fruit and vegetables, product certification is one of the important points that can build consumer trust (Tariq et.al 2019). The marketing approach through advertising via the internet is also increasingly common for organic food products. In fact, many people are buying and selling fresh fruit and vegetables via digital platforms (Sesini et.al 2023; Park et.al 2021). Consumers who are used to shopping online assume that the sensory attributes of digital images and actual products are no different (Park et.al 2021). So the sale of fresh organic food, both fruit and vegetables, has become commonplace. Several themes identified in the first cluster include Certification, Consumer preferences, Fruit, Trust, Vegetables, Vegetables, and Willingness to pay.

This cluster shows that most research on organic food focuses on consumer behavior towards fresh organic food products and organic food marketing.

Cluster 6: Organic food market

In the sixth cluster, themes such as Consumer attitude, Consumer behavior, Consumer perception, Decision making, Food preference and Segmentation are identified. This cluster describes that the organic food market is largely determined by key factors such as consumer attitudes and preferences towards local organic products. As previously explained, perception is the basis of consumer attitudes. Kuchler et.al (2020) conducted a study examining consumer perception on organic food and natural food based on web searches. The results show that consumers view the two claims as related, or even view the two claims as identical. More specifically, Tohidi and Mousavi (2023) researched segmenting the organic saffron market and shaping their behavior. Analysis of the organic food market includes studies related to consumer perception, market segmentation and decision making.

4.2. Type of digital marketing

This section specifically answers RQ2: What digital marketing approaches have been applied to organic food. In general, social media is the type of digital marketing that is most widely used in organic food research (Kusno et.al 2023; Hilverda et.al 2017; Scuderi et.al 2019; Pilar et.al 2021; You et.al 2020; Danner and Menapace 2020; Tariq et.al 2019; Jurado et.al 2019; Jurado et.al 2017; Chetioui et.al 2023; Bhutto et.al 2023; Hvitsand et.al 2023; Chiu et.al 2019; Kusno et.al 2022). Social media platforms that are often used as research objects include Facebook, Instagram, WhatsApp, YouTube, and Twitter. Each has a different role according to the research objectives.

4.2. Future research agenda

This part describes about RQ3: What are the future research perspectives regarding organic food in digital market. If we look further, the types of digital marketing that have not been widely discussed include e-mail marketing, search engine optimization, and pay per click. Future research could consider this type of digital marketing as a part of the Integrated Marketing Communication (IMC) concept for organic food products. In the future, research can be developed such as making comparisons between several digital platforms, differences across generation, race, and culture or on box scheme purchasing decisions vs non-box scheme consumers.

5. Conclusion

Based on the bibliometric analysis we know that the prominent research themes pertaining to organic food and digital marketing are e-grocery food, organic food social media, organic food intention to buy, sustainable food marketing, consumer organic fruit vegetable, and

organic food market. The digital marketing approaches that is developing in organic food research includes social media, branded-mobile application and websites. In general, social media is the most widely used in online organic food research. Social media platforms that are often used as research objects are Facebook, Instagram, WhatsApp, YouTube, and Twitter. Finally, we recommend investigating the current context such as influencer marketing, prosumer, or AFN and a combination of updated theories regarding the development of the internet of things in the organic food market.

6. Limitation

We focused on extracting publications from the Scopus database only. In addition, we extracted empirical papers published in English and overlooked books, book chapters, book proceedings, notes, reviews, conferences, and non-English publications, so this research is not completely free of bias.

7. Acknowledgment

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MARKETING TOURISM AND SUSTAINABILITY OF THE STUDY PROGRAM IN PRIVATE UNIVERSITIES

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ABSTRACT

Tourism and sustainability are inseparable. Tourism studies are crucial to prepare the industry with players that area ready to serve the industry not in only locally, yet internationally. The covid-19 pandemic has affected the industry wholly and almost all the Tourism sectors are affected. The private sectors were struggling to maintain the Tourism businesses. Among those affected are also the Tourism program and public and private universities. The papers intended to evaluate the marketing techniques and strategies to promote Tourism during and post covid-19 for the sake of Tourism Industry Sustainability. The method used is case study based on the private universities experiences, such as Universiti Kuala Lumpur (UniKL) Business School, Tuanku Abdul Rahman Management University (TAR UMT) and Management Sciences University (MSU). The paper reveals on some effective methods in promoting and enhancing the Tourism industry during and post covid-19. The case studies empathizes on the efforts made by private universities in the essence of promoting Tourism. The paper will serve as a basis for the private industry, mainly private universities to revolve and develop Tourism education and the Tourism industry post-coivd-19 pandemic.