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Editorial

Information Management and Business Review (IMBR) provides a digital forum for researchers to share their knowledge and publish research work in the fields of information management, business, management and related disciplines. The work submitted for publication consideration in IMBR should address empirical and theoretical developments in the subjects related to the scope of the journal in particular and allied theories and practices in general. Author(s) should declare that work submitted to the journal is original, not under consideration for publication by another journal and that all listed authors approve its submission to IMBR. It is IMBR policy to welcome submissions for consideration, which are original and not under consideration for publication by another journal at the same time. Author (s) can submit: Research Paper, Conceptual Paper, Case Studies and Book Review. The current issue of IMBR comprises papers of scholars from different universities of Malysia, China, Taiwan and Nigeria. Determinants of Resident Satisfaction in Public Housing, Waqf-Based Crowdfunding for Non-Ruminant Livestock, Influence of Sports Experience on Tourism Behaviors, Exploring Students' Early Understanding of Value Creation in Management Accounting, The Export-Led and Import-Led Growth Hypothesis Test, Community-Based Organizations' Service Delivery in Civic Leadership Engagement and Conceptual Framework on the Interplay Between Basic Psychology, Mental Health and Academic Performance are some of the major practices and concepts examined in these studies. All the submitted papers were first assessed by the journal committee and then the external editorial team for relevance and originality of the work and then blindly peer-reviewed by external reviewers depending on the subject matter of the paper. After the rigorous peer-review process, the submitted papers were selected based on originality, significance and clarity of the purpose. The issue will, therefore, be a unique proposition, where scholars will be able to appreciate the latest results in their field of expertise and to acquire additional knowledge in other relevant fields.

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PAPERS

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Determinants of Resident Satisfaction in Public Housing: A Case Study of Program Perumahan Rakyat (PPR) Paya Nahu, Malaysia

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Abstract: This study examines resident satisfaction within the Program Perumahan Rakyat (PPR), a primary government initiative in Malaysia designed to provide the B40 low-income group with affordable and sustainable housing. As housing is recognized as a fundamental human right essential for social and economic stability, evaluating the success of such public programs through the lens of resident well-being is critical for future urban planning. The purpose of this research is to assess the level of satisfaction among residents regarding their living conditions and the facilities provided under the program. Guided by Maslow's hierarchy of needs, the study focuses on three key dimensions: physical characteristics of the housing unit, safety needs, and social needs. Data was collected from 212 residents at PPR Paya Nahu, Kedah, using a quantitative approach. The findings indicate that while all variables correlate positively with resident satisfaction, the physical characteristics of the house—such as unit size, layout, and ventilation—emerge as the most influential factors. Conversely, safety needs recorded the lowest satisfaction levels, highlighting significant concerns regarding security and criminal activity in the area. This research contributes a holistic, need-based model to the literature on public housing, offering a structure for policymakers and managers to design more effective interventions that balance physical functionality with security and community cohesion.

Keywords: *Public Housing, Physical Housing Characteristics, Program Perumaham Rakyat, Safety Needs, Maslow Hierarchy of Needs, Malaysia*

1. Introduction and Background

Housing is a fundamental human right and a critical factor in social and economic stability. In Malaysia, the Program Perumahan Rakyat (PPR) was specifically established to provide the B40 income group with access to affordable and comfortable housing, distinguishing it from broader market-driven projects. This initiative aligns with Sustainable Development Goal (SDG) 11, which focuses on making cities inclusive, safe, and sustainable.

However, site-specific issues often hinder these goals. At PPR Paya Nahu in Sungai Petani, Kedah, significant dissatisfaction stems from safety concerns. Reports indicate the area has become a hub for drug trafficking, online gambling, and 'ketum water' processing. The Kuala Muda National Anti-Drug Agency confirmed that 50% of crime incidents in the vicinity are linked to drug addiction, tarnishing the area's reputation as the "Colombia Flat". Recent studies suggest that such issues prevent the full realization of the government's housing objectives.

The National Affordability Housing Policy (2019) defines the concept of housing affordability and categorizes it to ensure clarity in addressing the housing needs of different income groups. According to the National Housing Department Malaysia, 2019, affordable housing refers to homes that are considered affordable for households earning at or below the median income, as determined by the national government using a recognized housing affordability index. Housing affordability is essential to ensure that homes are offered at fair and affordable prices for people across all income levels (Raslim et al, 2020). The policy establishes specific classifications to determine what qualifies as affordable housing, ensuring targeted solutions for various income levels and promoting equitable access to quality homes. One of the initiatives by the government is introducing the Program Perumahan Rakyat (PPR) to provide affordable housing for the low-income and middle-income groups. This program aims to solve housing problems while creating sustainable, inclusive, and comfortable living spaces.

In the Sustainable Development Goals (SDGs), there are SDG 3 (Good Health and Well-being) and SDG 11 (Sustainable Cities and Communities). In Malaysia, the government introduced PPR as an effort to provide affordable housing for low-income families, namely the B40 group. The implementation of PPR is aligned with SDG 3 and SDG 11. SDG 3 aims to ensure healthy lives and promote well-being for all, while SDG 11 focuses on making cities inclusive, safe, resilient, and sustainable. However, despite the government's efforts, the program faces several issues that affect the population's satisfaction, thereby preventing the achievement of the SDGs (Md. Asrul Nasid & Nurul Fatihah, 2024).

In a 2023 study conducted by Khazanah Research Institute, the satisfaction levels of residents in five Public Housing Projects (PPRs) are examined based on two indices: the Unit Index and the Complex Index, each with detailed components. Among the PPRs, PPR Jalan Sungai scores the highest in the Unit Index (71.2), indicating better unit conditions, while PPR Kerinchi leads in the Complex Index (77.2), showing superior shared facilities. However, PPR Salak Selatan has the lowest scores in both Unit Index (63.5) and Complex Index (54.8), indicating the least satisfaction overall. These findings highlight strengths and weaknesses in housing quality across the PPRs.

There is no denying that there are many issues that arise regarding resident satisfaction with PPR. One of them is at PPR Paya Nahu at Sungai Petani, Kedah. The issues that are highlighted in PPR Paya Nahu that create dissatisfaction among the residents are more related to the safety needs. According to the news reported by Utusan Malaysia, it is believed that PPR Paya Nahu became the center of various unhealthy activities, including drug trafficking, online gambling, a location for processing 'ketum water', the sale of smuggled cigarettes, and a location where people are wanted for hiding and where members of gangster groups live (Othman, 2022). This criminal activity has been confirmed by the Kuala Muda National Anti-Drug Agency, Samsuri Yusuf, where 50% of the crime incidents that occur there are due to drug addiction problems, and this certainly affects the image and safety of the area and the surrounding areas. (Zawawi et al., 2019). Additionally, the Paya Nahu PPR is also called the 'Colombia Flat, which has further tarnished the image and given the public a bad impression of the residents of the Paya Nahu PPR (Izzad Thaqif, 2022).

Based on the issue above, we can conclude that there is an influence of safety needs that motivates us to conduct this study. Therefore, based on the issue stated regarding Paya Nahu as well as the study conducted by Khazanah Research Institute and supported by the theory of Maslow, we aim to conduct the resident satisfaction towards PPR based on three aspects, namely physical characteristics of the house, safety needs, and social needs.

2. Literature Review

This study is grounded in **Maslow's Hierarchy of Needs**, which posits that individuals are motivated to satisfy lower-level needs before progressing to higher-level fulfilment.

Physiological Needs & Physical Characteristics: In a housing context, the physical characteristics of a unit (size, ventilation, and layout) serve as the most basic requirement for comfort. Studies show that overcrowding and small kitchen or laundry areas in PPR flats lead to significant dissatisfaction.
Safety Needs: Beyond shelter, residents require a secure environment. This includes functional CCTV, safe staircases, and effective fencing to protect children.
Social Needs: Higher-order satisfaction is derived from community interaction, neighbourly trust, and participation in activities like *gotong-royong*.

While recent literature confirms a significant relationship between housing design and satisfaction, there is a gap in understanding how these three levels of Maslow's theory interact specifically within high-density, low-cost environments like Paya Nahu.

Resident satisfaction is a key measure in evaluating the success of public housing programs such as Program Perumahan Rakyat (PPR). Satisfaction refers to the extent to which housing conditions meet the expectations, needs, and comfort of residents (Mohammad Abdul et al., 2010). In low-cost housing, this satisfaction is often shaped by both physical and non-physical aspects of housing, including design, safety, and social environment

(Mustaqim, 2012). Since PPR was introduced to provide affordable homes for the low-income B40 group, ensuring residents are satisfied with their homes is essential to achieve the objectives of providing sustainable and livable housing.

Among the different factors, the physical characteristics of the house are one of the most influential in determining resident satisfaction. Physical features such as the number of bedrooms, size of the living room, kitchen, and ventilation directly affect daily activities and family comfort (Norjanna & Lau, 2024). In many PPR flats, overcrowding is a common issue because the unit sizes are often small for larger families. Studies in Malaysia have shown that while residents may be satisfied with access to facilities and location, they are less satisfied with the limited space inside their homes (Husna & Nurizan, 1987; Nurizan, 1993). This suggests that satisfaction depends heavily on whether the physical layout of the home matches the household's size and lifestyle.

Research has consistently highlighted the link between physical characteristics and housing satisfaction in different countries. For example, Huang and Du (2015) found that in China, larger housing units with more bedrooms provided higher levels of satisfaction because they allowed families to enjoy more privacy and flexibility. In Malaysia, studies on PPR residents also revealed that dissatisfaction often arises when kitchens, laundry areas, or dining rooms are too small, making it difficult for families to carry out daily activities (Goh & Yahaya, 2011; Norazmawati & Siti Nur Fatihah, 2021). These findings confirm that the quality and usability of internal spaces strongly influence residents' perception of comfort and satisfaction.

In addition to space, factors such as ventilation, lighting, and construction quality are also linked to resident satisfaction. Poor ventilation and limited natural light reduce comfort and can lead to health problems, lowering satisfaction levels (Awang et al., 2019). Conversely, strong building materials and proper finishing increase durability and safety, which give residents confidence in their homes and a sense of pride (Abdul Ghani, 2008; Tan, 2012). A study by Norjanna and Lau (2021) further showed that residents' overall satisfaction improved when housing units were designed to support both comfort and functionality, proving the strong role of physical features in shaping satisfaction.

For PPR projects, these findings mean that physical characteristics are not just about construction standards but about ensuring livable conditions that improve the well-being of low-income households. Aimi and Nor Hafizah (2020) confirmed that there is a significant positive relationship between housing design and resident satisfaction. When homes are designed with enough bedrooms, proper ventilation, and user-friendly layouts, residents report higher satisfaction levels and are more likely to view their housing positively.

In conclusion, the physical characteristics of the house are the main factor influencing resident satisfaction in PPR. Unit size, number of rooms, layout, and ventilation directly affect comfort and daily activities. Well-designed houses reduce overcrowding and improve quality of life, while poorly designed units create dissatisfaction. Therefore, enhancing the physical features of PPR homes is essential to provide livable housing for low-income communities.

Proposed Model

This paper develops a model that describes the satisfaction of residents with the People Housing Program (PPR) according to Maslow's theory. Maslow's theory states that people are motivated to satisfy their physiological needs, then safety and social needs, and then higher needs. In the case of PPR housing, the satisfaction of the residents can be described in terms of three key elements, namely physical characteristics, safety needs, and social needs.

The Integration of Physical Characteristics of the House, Safety Needs, and Social Needs Factors: The integration of these three components for the improvement of residents' satisfaction could be made in the following ways:

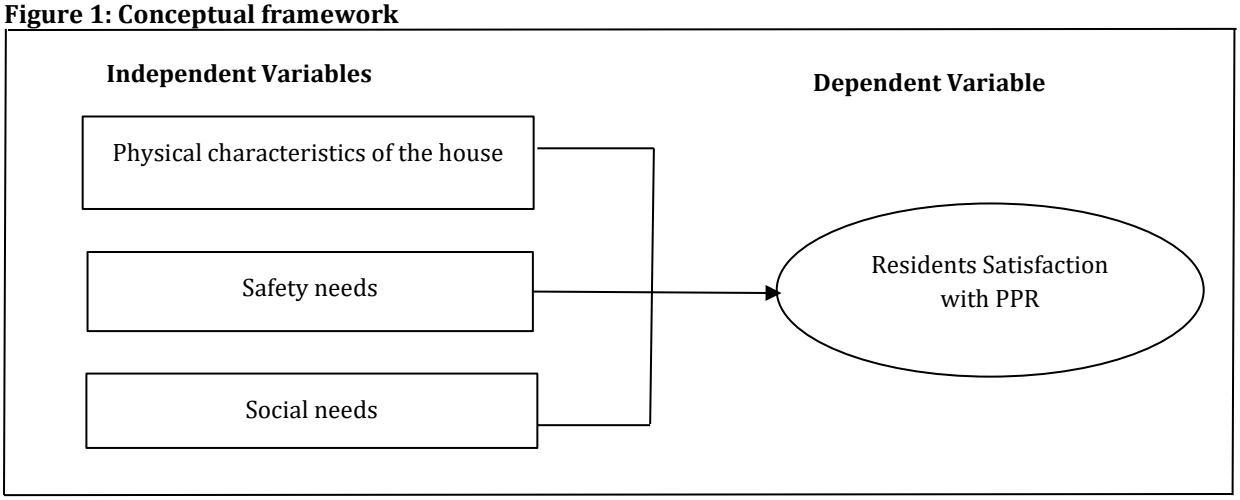
- Physical Characteristics of the House are concerned with the sufficiency of the internal features of the housing unit, which have a direct impact on comfort and daily household activities. These are the size of the living room and living hall, the number and size of bedrooms, the number of bathrooms, the

sufficiency of the dining room, kitchen, and washing area, the number of electrical sockets, and the quality of interior construction. When these features respond to the needs of the residents, the level of satisfaction is higher as the home is more suitable to support family activities and to provide a comfortable living environment.

- Safety Needs refer to the feeling of security of the residents in their housing units and the surrounding environment. This involves the availability of residential security measures, the staircases being in good condition, and the availability of a CCTV control system to observe activities. Safety needs include the confidence of parents in allowing their children to play in the neighborhood without supervision, the effectiveness of the fences in corridors to ensure that children do not climb, and the sense of safety when residents walk around the residential area. Besides, the general feeling that the area is crime-free is a major determinant of satisfaction. With all these elements in place, residents will feel more secure, less worried, and more confident in their living environment, which is a significant contribution to their overall satisfaction with PPR housing.
- Social Needs focus on the significance of acceptance, interaction, and participation in the PPR society. This involves a sense of acceptance by neighbors, frequent communication and the establishment of positive relationships that lead to trust and harmony. Social needs also include how residents feel responsible towards the welfare of the neighborhood, and how comfortable they feel living among people of different backgrounds. Besides, satisfaction depends on the accessibility and frequency of social activities, including gotong-royong, and whether the work-life balance of residents allows participation. The fact that associations exist in the PPR and actively participate in solving problems also reinforces social needs. When these factors are met, residents feel more connected, have a feeling of belonging, and are happier with their living conditions.

This model is based on Maslow's Theory, which states that the satisfaction of residents with PPR depends on their physical, safety, and social needs fulfilment. It is important to focus on these areas concurrently to establish sustainable housing environments that improve the comfort of residents, their security, and their sense of community.

Figure 1: Conceptual framework



Note. The framework between the independent variables and the dependent variable

According to Figure 1, there are three independent variables in the framework, which are physical characteristics of the house, safety needs, and social needs, all influencing the dependent variable, which is residents' satisfaction with PPR. Physical characteristics refer to the basic housing characteristics such as design, space, and functionality, correlating with Maslow's physiological needs. Safety needs stress the need for a secure and safe living environment, whereas social needs emphasize the importance of community engagement and relationships in housing satisfaction. According to this conceptual framework, if satisfaction increases in any one of these areas, it should directly contribute to the overall residents' satisfaction with the PPR housing initiatives.

3. Research Methodology

This study utilized a cross-sectional quantitative technique to assess satisfaction levels. According to Murthy and Bhojanna (2009), research methodology is the methodical process of solving a research topic by collecting data using a variety of approaches, providing an interpretation of the data collected, and drawing conclusions about the research data.

Unit of Analysis: The unit of analysis is the individual resident.
Population and Sampling: The target population consists of residents from PPR Paya Nahu, which comprises 2,064 units (Phase 1: 592; Phase 2: 1,472). Using convenience sampling, data were collected from residents accessible during the study timeframe.
Sample Size: While the ideal sample size for this population is 322 based on Krejcie and Morgan (1970), a total of 212 respondents completed the survey through face-to-face distribution and online Google Forms. Sample size refers to the portion of a population selected to provide enough information for drawing meaningful conclusions (Sekaran & Bougie, 2010). Kumar et al. (2013) define it simply as the total number of participants or observations included in a study. The intended residents for this study are residents of Program Perumahan Rakyat Paya Nahu, Sungai Petani, and Kedah. There are 2,064 units of houses in total, of which 592 units are in phase 1 and 1,472 units are in phase 2. The sample size table by Krejcie and Morgan (1970) suggests that 322 is the ideal sample size for this population to guarantee a statistically sound and representative sample
Measurement: Satisfaction was measured using a five-point Likert scale ranging from "Strongly Disagree" (1) to "Strongly Agree" (5).
Quantitative Research Design: According to Durrheim (2004), it is a methodical structure for gathering action data that connects research themes. Based on primary data from respondents, this study employed a cross-sectional quantitative technique. This indicates that to ascertain the residents' level of satisfaction with the Program Perumahan Rakyat PPR, a questionnaire was distributed to households using quantitative techniques. As a result, many respondents' data could be gathered using this study methodology. Additionally, hypothesis testing, which comprised null and alternative hypotheses related to dependent and independent variables, was employed to achieve the study's goals.

4. Findings and Discussion

Table 1: Demographic Profile of Respondents

Profile	Frequency	Percentage
Gender		
Male	106	50.0
Female	106	50.0
Total	212	100.0
Profile	**Frequency**	**Percentage**
Race		
Malay	160	75.5
Indian	27	12.7
Chine	25	11.8
Total	212	100.0
Profile	**Frequency**	**Percentage**
Number of households		
2	36	17.0
3	32	15.1
4	55	25.9
5	62	29.2

6 and above	27	12.7
Total	212	100.0
Profile	**Frequency**	**Percentage**
Respondent's home ownership status		
Own	4	1.9
Rent	208	98.1
Total	212	100.0
Profile	**Frequency**	**Percentage**
Phase		
Phase 1	128	60.4
Phase 2	84	39.6
Total	212	100.0
Profile	**Frequency**	**Percentage**
Employment status		
Private	55	25.9
Government	5	2.4
Business/Self-Employment	100	47.2
Unemployed	52	24.5
Total	212	100.0
Profile	**Frequency**	**Percentage**
Length of residency		
1 - 2 years	1	0.5
3 - 5 years	26	12.3
6 - 9 years	49	23.1
9 years and above	136	64.2
Total	212	100.0

Table 1 shows the demographic profile of 212 respondents who took part in this study. The demographic profile shows an equal distribution of gender (50% male, 50% female), with the majority of respondents (64.2%) having lived in the PPR for over 9 years.

The gender distribution is equal, with 50 percent male respondents and 50 percent female respondents. In terms of race, most respondents are Malay, accounting for 75.5 percent, followed by Indian at 12.7 percent and Chinese at 11.8 percent. For the number of household members, most respondents, 29.2 percent, come from families with five members, followed by 25.9 percent with four members, 17 percent with two members, 15.1 percent with three members, and the remaining 12.7 percent have six or more members in their household. Furthermore, when looking at home ownership status, a significant majority of 98.1 percent of respondents rent their homes, while only 1.9 percent own them.

In terms of the phase of participation, 60.4 percent of respondents are from Phase 1, and the remaining 39.6 percent are from Phase 2. Regarding employment status, 47.2 percent of the respondents are involved in business or are self-employed, 25.9 percent work in the private sector, 24.5 percent are unemployed, and only 2.4 percent work in the government sector. Lastly, the length of residency shows that the majority, 64.2 percent of respondents, have lived in their current area for 9 years and above, 23.1 percent for 6 to 9 years, 12.3 percent for 3 to 5 years, and only 0.5 percent for 1 to 2 years.

Table 2: Descriptive Statistics of Variables

	N	Minimum	Maximum	Mean	Std. Deviation
Resident Satisfaction with PPR	212	1.60	5.00	3.4745	0.66226
Physical Characteristics of the House	212	1.60	5.00	3.5580	0.734471
Safety needs	212	1.00	5.00	2.8187	0.76253
Social needs	212	2.00	5.00	3.9741	0.59662

Descriptive analysis was utilized to understand the residents' satisfaction with PPR. The dependent variable of the study is resident satisfaction with PPR and there are three independent variables that represent resident satisfaction with PPR. The independent variable of this study is the physical characteristics of the house, safety needs and social needs. The responses for each topic were based on a five-point Likert scale, which included (1) strongly disagree. (2) disagree, (3) moderate agree, (4) agree, and (5) strongly agree.

Based on the data presented in Table 2, the dependent variable, which is resident satisfaction toward PPR, has a mean value of 3.47, which falls in the average category of means. Among the three independent variables, social needs got the highest mean value, which is 3.9471. Next, the physical characteristics of the house got the mean value of 3.5580. Lastly, the lowest mean value was presented to safety needs with the value 2.8187. In summary, the mean values reported in the findings indicate that both the dependent and most of the independent variables fall within the average to high categories. However, an exception was observed for the independent variable related to safety needs, which was categorized as low.

Table 3: Pearson Correlation between Housing Characteristics, Safety Needs, Social Needs and Resident Satisfaction with PPR

Relationship between variables	R-value	P-value
Physical characteristics of the house and resident satisfaction with PPR	0.650	<.001, $p < 0.05$
Safety needs and resident satisfaction with PPR	0.621	<.001, $p < 0.05$
Social needs and resident satisfaction with PPR	0.535	<.001, $p < 0.05$

Correlation is significant at the 0.01 level (1-tailed)

Table 3 presents the Pearson correlation analysis results between the independent variables and resident satisfaction with the PPR. The results indicate the presence of positive and significant correlations between the three independent variables and satisfaction, at the 0.01 level. Among them, the physical characteristics of the housing units present the most significant correlation with the resident satisfaction ($r = 0.650$, $p < .001$), followed by safety needs ($r = 0.621$, $p < .001$), and social needs ($r = 0.535$, $p < .001$). These results imply that enhancements in the design and facilities of housing, alongside safety measures and social support, will increase the satisfaction levels of PPR residents. These findings also support Maslow's hierarchy of needs in reaffirming that satisfying low-order physiological and safety requirements lays the basis for social well-being and life satisfaction.

Table 4: Results of Multiple Regression Analysis

Variable	Unstandardized coefficients	Standardized coefficients	t-value	p-value	Decision
Physical characteristics of the house	0.350	0.388	7.004	<.001	Based on the beta value, the physical characteristic of the house is the most influential factor.
Safety needs	0.330	0.380	7.467	<.001	

Social needs	0.198	0.178	3.290	0.001
R^2 = 0.583 **F-value = 97.045** **P-value =** < .001				

Table 4 shows the results of a multiple regression analysis to determine the influence of physical characteristics of the house, safety needs, and social needs on residents' satisfaction with PPR housing. All independent variables show a significant relationship with the dependent variable, which is resident satisfaction with PPR, as all p-values are below the 0.05 significance level. Specifically, physical characteristics and safety needs have p-values less than 0.001, while social needs have a p-value of 0.001. This shows that all three variables significantly influence residents' satisfaction.

Among the three variables, the physical characteristics of the house are identified as the most influential factor affecting resident satisfaction. This is because it has the highest standardized beta coefficient (β = 0.388), compared to safety needs (β = 0.380) and social needs (β = 0.178). The unstandardized beta coefficient for physical characteristics is B = 0.350, followed by safety needs (B = 0.330) and social needs (B = 0.198). The regression model is statistically significant as $F(3,208) = 97.045$, $p < .001$. Thus, the independent variable, which is the physical characteristics of the house, significantly influences the dependent variable, which is resident satisfaction with PPR. The R-squared value is 0.583. It shows that only 58.3% of the variance in resident satisfaction towards PPR can be explained by the independent variable, while 41.7% cannot be explained. Hence, it proves that the model is statistically significant. In summary, the physical characteristics of the house are the most influential factors of resident satisfaction towards PPR.

5. Conclusion and Recommendations

This paper aims to compare levels of satisfaction among residents enrolled in the PPR and to suggest a model that explains the concept of satisfaction in three major dimensions, namely the physical features of the house, safety needs and social needs. Based on the Hierarchy of Needs, the results show that the combination of these dimensions determines the general satisfaction of the residents with the environment they live in.

Although the PPR program provides the low-income population with affordable housing, several issues remain in terms of housing space sufficiency, safety, and community integration opportunities. As an example, the lack of room size, maintenance issues, and concerns about the security of the neighborhood tend to reduce the level of satisfaction. Similarly, a lack of active socialization and community associations can undermine the sense of belonging among the residents. These findings highlight the necessity of housing policymakers to focus on not only affordability, but also the physical, safety, and social needs of PPR housing.

Theoretical Implications: This paper is a contribution to the literature on housing and urban studies as it expands the Hierarchy of Needs by Maslow to the setting of low-cost public housing. The results show that physiological needs (sufficient physical characteristics), safety needs (safe housing conditions), and social needs (relationships within the community) depend on each other to influence satisfaction. Using the theory of Maslow, the research shows that housing satisfaction does not only focus on the provision of shelter, but also the fulfillment of other psychological and social needs. The theoretical framework may be utilized in the future to investigate the issue of public housing in various settings, thus increasing the generalizability of need-based theories to the study of housing.

Managerial Implications: The results give several practical lessons to policymakers, housing authorities, and PPR managers. First, physical characteristics of the house, such as room size, number of bathrooms, kitchen area, and power supply, should be improved to meet the daily needs of the residents. Second, safety needs, such as proper staircases, efficient CCTV control, proper fencing and all-encompassing crime-prevention measures, are crucial to building confidence of residents in the environment. Third,

social needs should be addressed by community programs, frequent gotong-royong activities, active resident associations, and programs that encourage interaction among different backgrounds, which will enhance the cohesion of the neighborhood. These measures should be collaborative among government agencies, housing developers and community leaders to make sustainable gains in PPR satisfaction.

It can be summarized that the combination of physical features, safety needs, and social needs provides a holistic approach to the satisfaction of residents in PPR housing. Theoretically, this model applies Maslow's hierarchy of needs to the housing context, whereas, on a managerial level, it offers a structure of how more effective housing policies and interventions can be designed. Overall, the study contributes to the knowledge of how the PPR can be improved, to meet the housing development objectives of Malaysia and the Sustainable Development Goals, namely SDG 3: Good Health and Well-Being and SDG 11: Sustainable Cities and Communities. The development of a safe, comfortable, and unified living environment requires effective cooperation between the policymakers, housing authorities, and residents.

Future Research: Further studies are needed to include PPR projects in different states of Malaysia to capture regional differences in satisfaction. There should also be longitudinal studies to determine how the level of satisfaction changes with time, especially after policy interventions or facility upgrades. Moreover, mixed method designs that involve surveys and in-depth interviews would provide more detailed information on the lived experiences of residents. The generalizability of the findings would also be enhanced by comparison research with other types of public or affordable housing, both locally and internationally, which would also help to refine the proposed model.

In a nutshell, the study concludes that resident satisfaction in PPR housing is a holistic concept requiring the simultaneous fulfilment of physical, safety, and social needs.

Policy Recommendations
Enhance Unit Design: Prioritize improvements in room size, kitchen areas, and ventilation to alleviate overcrowding.
Strengthen Security: Implement robust crime-prevention measures, including efficient CCTV monitoring and improved fencing, to address the low safety satisfaction.
Community Engagement: Foster neighborhood cohesion through active resident associations and regular social programs to meet higher-order psychological needs.

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Waqf-Based Crowdfunding for Non-Ruminant Livestock: A Qard al-Hasan Model for Sustainable Food Security in Malaysia

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Abstract: This study looks into the possibility of waqf-based crowdfunding as a different way to get money to help develop non-ruminant livestock, especially poultry, in Malaysia. Even though the sector is becoming increasingly important to national food security, farmers face significant financial challenges, including high capital costs and limited access to traditional financing. At the same time, waqf funds are still not being used enough in productive sectors. This study finds important legal, institutional, and operational problems by using a qualitative method that combines doctrinal and non-doctrinal analysis, such as interviews and a Focus Group Discussion (FGD). The results show that there is a regulatory gap and broken governance that make it hard to implement waqf crowdfunding. In response, the study suggests a model that combines one-time waqf funding for infrastructure with Qard al-Hasan funding for operations. This model provides a long-term, Shariah-compliant solution that helps farmers, increases access to financial services, and helps improve food security.

Keywords: *Qard, Blended Finance, and Shariah-compliant Investment, CAPEX, SDG.*

1. Introduction

Waqf is a long-standing Islamic charitable organization that has traditionally taken the form of a cash waqf, in which donors (wakifs) give money for religious, social, or economic purposes (Aldeen, Ratih & Herianingrum, 2020). In the past, cash waqf has been very important for helping communities grow and stay healthy (Ibrahim, Amir and Masron, 2013). However, even though it is well-known how important it is, it is still mostly used in traditional areas like religious infrastructure, education, and healthcare. This means that important areas like agriculture and food security are still not getting enough funding. This imbalance shows that waqf is not being used enough as a strategic socio-economic tool to deal with Malaysia's most important national problems.

In recent years, waqf crowdfunding has become more popular with both scholars and practitioners as a way to breathe new life into waqf institutions. Azganin, Kassim, and Sa'ad (2021) point out that this model broadens the traditional definition of waqf by using digital platforms to get more people involved and make better use of resources. Waqf crowdfunding differs from traditional cash waqf by incorporating financial technology (fintech) to create clear, open, and scalable ways to raise money for a wide range of social and economic projects (Suhaili & Palil, 2016). This change shows that Islamic social finance is moving away from passive giving and toward more active and involved models.

Despite its promising potential, the implementation of waqf crowdfunding in Malaysia encounters substantial structural and regulatory obstacles. These encompass restricted public awareness, technological limitations, and, more significantly, legal and institutional ambiguities (Haniff et al., 2024). Current regulatory frameworks, especially those that govern capital markets and waqf administration, don't work well with donation-based crowdfunding models. This creates a "regulatory dead zone" that makes it hard for new ideas to grow and spread. Additionally, the lack of coordination and standardization is made worse by the fact that there are many State Islamic Religious Councils (SIRCs) with different rules.

To fully realize the potential of waqf as a tool for social and economic change, these problems must be solved. Lahuri and Lutfiah (2024) point out that the ongoing funding gaps in the social, economic, and development sectors show how important it is to find new ways to finance projects that follow Shariah principles while also

improving participation, transparency, and operational efficiency. The use of waqf crowdfunding in areas that haven't been studied much yet, like agriculture, is especially interesting because it could help with high capital costs and food security issues. This changing environment makes it even more important to create a strong, legally sound, and technologically advanced waqf crowdfunding model that can meet the needs of today's society.

Research Problem

Although cash waqf has long been practiced in Malaysia, its role in addressing modern socio-economic challenges remains limited (Abd Rahman & Awang, 2018). In practice, waqf funds are still largely concentrated in traditional sectors such as religious infrastructure and education, with minimal utilisation in critical areas like agriculture and food production, particularly in non-ruminant livestock such as poultry. This is a significant gap, given that poultry is a major source of protein in Malaysia and plays an important role in national food security.

At the same time, the non-ruminant livestock sector faces serious financial challenges. Farmers require high capital investment to upgrade to modern systems, such as closed-house farming, yet many are unable to access financing due to high risks and strict lending requirements. As a result, small and medium-scale farmers are often excluded from participating in more efficient and sustainable farming practices.

Waqf crowdfunding has been proposed as a possible way to enhance the potential for better resource mobilisation through digital platforms and public involvement. However, its application in Malaysia is still in its infancy. Some of the issues affecting its application include public awareness, lack of technological integration, and most importantly, the lack of a clear legal framework for its application (Haniff et al., 2024; Qurrata et al., 2021). For example, existing laws such as Equity Crowdfunding (ECF) are only applicable to profit-based crowdfunding and not donation-based crowdfunding. Moreover, existing State Waqf Enactments do not clearly outline the application of waqf funds in high-risk activities such as livestock farming.

As a result, there is a disparity between the potential and application of waqf crowdfunding in supporting the development of non-ruminant livestock. Therefore, there is a need to explore the potential for the application of waqf in supporting the development of non-ruminant livestock. This includes developing an appropriate model that is effective in mobilising resources, supporting farmers, and contributing to food security, while adhering to Shariah principles.

Objectives of the Study

This study aims to examine the role of modernisation of cash waqf in resolving current socio-economic challenges, especially in the development of non-ruminant livestock such as poultry. The specific objectives of this study are as follows:

- To examine the limitations of traditional cash waqf in resolving current socio-economic challenges in Malaysia, especially in the development of non-ruminant livestock.
- To examine the possibility of waqf crowdfunding and blended finance as a new mode of resource mobilisation for public participation in the development of non-ruminant livestock.

2. Literature Review

Waqf is traditionally used for the development of society, education, health, and infrastructure development in Islamic society, especially in Ottoman society (Avedta, 2023). Nevertheless, the effectiveness of waqf in resolving modern socio-economic challenges in Malaysia is limited due to government intervention and the lack of independence in the management of waqf institutions (Syamsul & Munir, 2023). Waqf is a useful tool for society and for making donations.

The introduction of cash waqf (CW) has created a more flexible option compared to the traditional waqf system because it allows the funds to be mobilized and utilized more productively. In Malaysia, the management of CW is handled by the State Islamic Religious Councils (SIRCs), indicating the possibility of generating more income in a Shariah-compliant manner (Daud, 2019). Nevertheless, the system is still restricted by legal and administrative issues that hinder the full utilization of waqf (Abdullah, Basir, & Abdul, 2022).

To further enhance the waqf system, the waqf institutions must be governed better, more transparently, and more efficiently in managing finances. In this regard, the introduction of fintech and Equity Crowdfunding (ECF) provides new avenues for the waqf system to be more modernized and made more accessible, transparent, and participatory (Haniff et al., 2023). This could transform the waqf system from a passive charity into a more defined and effective system.

ECF can assist small businesses or social initiatives through Shariah-compliant contracts, i.e., mudharabah or musharakah. This, therefore, presents an opportunity for the Waqf-Equity Crowdfunding (Waqf-ECF) model, which can raise funds more efficiently, especially for sectors with significant impact, e.g., non-ruminant development. A sustainable waqf system, therefore, requires good governance, the efficient application of technology, and the engagement of the community to achieve an effective balance between spiritual and financial objectives.

However, ECF is not considered an appropriate model for non-ruminant livestock, e.g., poultry. This is because the sector is prone to risks, e.g., diseases or price volatility. These risks make it an unattractive investment opportunity. In addition, the application of ECF is subject to regulations by the Securities Commission, which may pose bureaucratic challenges. Moreover, it is not an appropriate model due to its investment-based nature, which does not align with the charitable objective of waqf.

3. Research Methodology

This research employed a qualitative research design to assess the development of the waqf crowdfunding model in the context of non-ruminant livestock, such as poultry, in Malaysia. This research design is appropriate to this research as it seeks to understand the gaps in the laws and the challenges in the institutions, which may not be achieved using a quantitative research design.

This research process follows a systematic process of carrying out a literature review, legal analysis, data gathering, and developing a model, validated by a Focus Group Discussion (FGD) with subject matter experts.

Data Collection Methods

The doctrinal method entails examining the relevant legal and regulatory environment, including the Capital Markets and Services Act 2007 (CMSA 2007), Securities Commission Guidelines on Recognized Markets (2021), Guidelines on Islamic Funds with Waqf Features (2020), State Waqf Enactments, and the Bank Negara Malaysia Shariah Governance Framework (2019). This is necessary to determine the legal gaps and limitations in the implementation of waqf crowdfunding, particularly in sectors that are considered to be of high risk, such as non-ruminant livestock.

Moreover, the research will also be conducted using the non-doctrinal method, which entails qualitative data collection using semi-structured interview methods with key stakeholders in the waqf crowdfunding ecosystem, including State Islamic Religious Councils (SIRCs), waqf institutions, and agricultural agencies such as the Department of Agriculture (DOA) and Department of Veterinary Services (DVS), and industry players in the poultry sector. The research will also involve a Focus Group Discussion (FGD) as a validation mechanism, where subject matter experts will be consulted to provide feedback on the proposed waqf crowdfunding model.

Sampling Strategy

The research participants will be sampled using a purposeful sampling technique, where participants will be chosen based on their level of expertise in the areas of waqf, Islamic finance, and the agricultural sector. The data collected will then undergo an analysis using thematic analysis, whereby the collected data will be coded according to key issues or themes, including legal issues, financial issues, issues of governance, and the feasibility of waqf crowdfunding for the development of non-ruminant livestock. The results from both the doctrinal and non-doctrinal research will then be synthesized to form a model.

Reliability and Validity

In this regard, this research adopts a data triangulation approach to ensure the validity and reliability of the results. In this regard, expert validation through the FGD contributes to the reliability of the proposed model.

In this regard, the proposed approach provides a reliable way of understanding the challenges and opportunities associated with the implementation of waqf crowdfunding in the non-ruminant livestock industry in Malaysia.

4. Findings

Financing Challenges in Non-Ruminant Livestock

This shows that the sector of non-ruminant livestock, especially poultry, plays a critical role in the food security of Malaysia. Poultry is still the main source of protein for Malaysians, and the demand is steadily rising. Nonetheless, the sector faces serious financial problems, especially among small and medium-scale farmers.

One of the main problems identified in the sector is the high capital expenditure that is required to move from traditional open house farming to a more advanced and efficient system of farming, which is the closed house system. This is necessary to enhance biosecurity and increase production. The cost of doing this is, however, too high, and this has been a serious problem in the sector. The traditional farming methods make the sector prone to more diseases.

Moreover, access to traditional sources of finance is still limited. For instance, financial institutions are not willing to lend money to agricultural players in the sector due to the high risk associated with it, including the risk of diseases, environmental factors, and market volatility. The stringent conditions required to obtain loans, such as the need to have collateral and a steady income, also make it difficult for small-scale farmers to access finance. This creates a gap in finance, which affects the growth of the non-ruminant livestock sector.

From the findings of this research, it is evident that the sector needs alternative sources of finance that are easily accessible, have low risk, and are sustainable. Waqf crowdfunding has been identified as a possible solution to this problem because it provides an alternative source of finance that is not based on debt finance.

Underutilisation of Waqf in Productive Sectors

Another important finding is the lack of utilization of waqf funds in productive sectors of the economy. Though the collection of cash waqf in Malaysia has registered growth, its utilization is still largely in traditional sectors like the construction of religious centers, education, and healthcare. Very little attention is being devoted to sectors like agriculture, and presently, there is no specific focus on the development of non-ruminant livestock.

This is a major opportunity cost, as waqf has the potential to be used for economic development. Waqf, being a perpetual and charitable fund, has the potential to be utilized for income-generating activities, which can bring continuous benefits to the larger society. However, presently, the focus is largely consumption-based, and not enough is being done to explore the potential of waqf for its productive utilization.

From the above findings, it is clear that there is a need to shift from the traditional concept of waqf utilization to a more productive concept. By utilizing waqf funds for poultry farming, for example, it is possible to generate a continuous cycle to support further development. This approach aligns with the concept of waqf as a long-term asset that benefits both current and future generations.

Legal and Institutional Constraints

The study also points out other legal and institutional issues that affect the application of waqf crowdfunding in Malaysia. One issue is that there is no legal framework to govern donation-based crowdfunding platforms in Malaysia. For instance, the Securities Commission's Guidelines on Recognised Markets primarily govern equity crowdfunding and peer-to-peer financing platforms, which operate on a profit-sharing model. However, this is not the case in waqf crowdfunding platforms, where investors do not anticipate any returns on their investments.

In addition, the Guidelines on Islamic Funds with Waqf Features primarily govern unit trusts and not project-based crowdfunding platforms. This creates a legal void where there is no law governing waqf crowdfunding platforms. Furthermore, State Waqf Enactments do not offer clear provisions on investing in high-risk assets

like livestock due to concerns over the application of the principle of perpetuity (ta'bid). This creates ambiguity among waqf authorities in implementing this project.
In addition, the current system of waqf governance in Malaysia is dispersed and involves various State Islamic Religious Councils (SIRCs) with their own set of rules. This lack of standardization makes it difficult to have a uniform system of waqf crowdfunding at the national level. In this regard, the current system results in a "regulatory dead zone."

Potential of Waqf Crowdfunding Model
However, the findings have demonstrated a good opportunity for the development of a crowdfunding model based on the concept of Waqf for the non-ruminant livestock sector. This would be a more sustainable and Shariah-compliant alternative for financing, considering the shortcomings of the existing financing systems.

The proposed model for Waqf crowdfunding would have three phases: collection, financing, and management. In the collection phase, funds would be collected through digital platforms from the donors/wakifs through a Wakalah arrangement. The Waqf funds would be used for one-time infrastructure development, for example, building closed-house systems for poultry farming and essential farm infrastructure. This would ensure the sustainability of the Waqf.

In the financing phase, the farmers would be financed through a Qard al-Hasan system, where funds would be provided for operational costs. The farmers would only be required to pay back the principal amount, and this would be used for future financing. In the management stage, relevant agencies and players in the industry will be responsible for providing technical support and supervision for the efficient management of farms while adhering to biosecurity requirements.

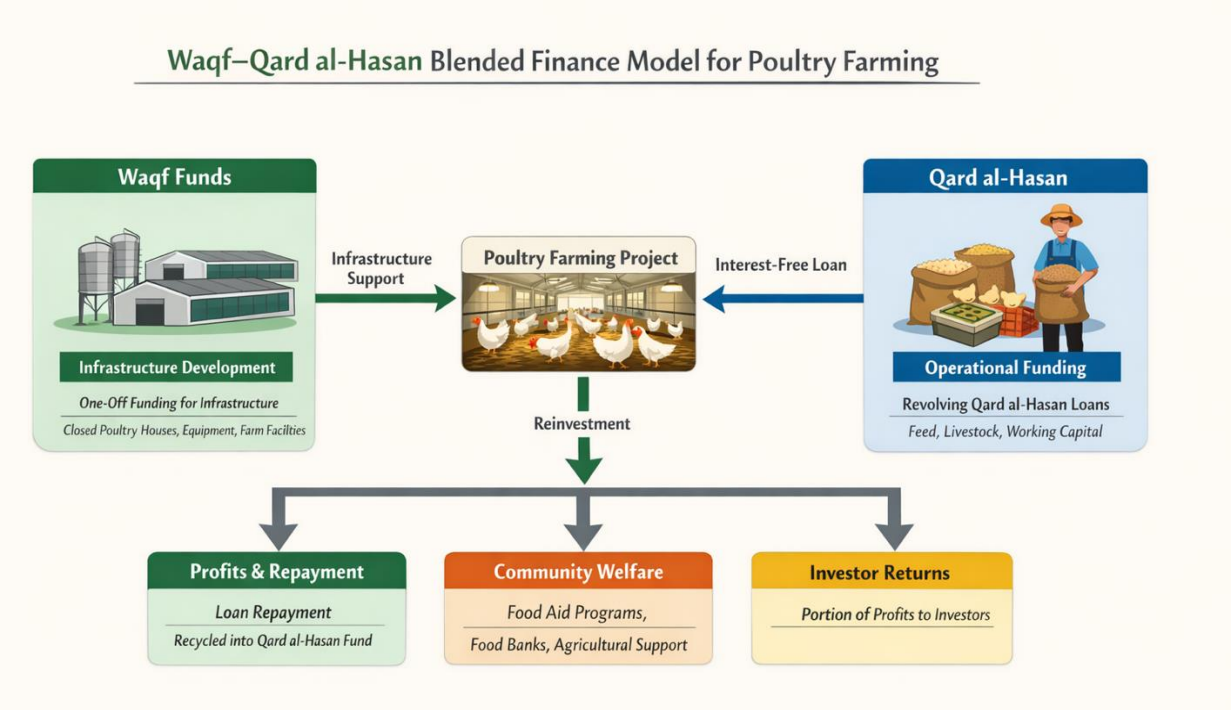
Significantly, the proposed model portrays contributors as donors who seek social and spiritual rewards, not financial ones. However, the model establishes a sustainable system in which waqf assets are not depleted, while Qard al-Hasan funds are constantly flowing. The addition of digital technologies makes the system more transparent, accountable, and participatory, thus promoting public trust and engagement in waqf activities.

Waqf-Qard al Hasan
However, the existing waqf management in Malaysia is still heavily reliant on conventional administrative practices, which are not very dynamic and not entirely compatible with modern financial instruments and technological advancements. This has, in turn, affected the ability of waqf institutions to reach their maximum economic potential. Some of the major issues in the existing waqf management in Malaysia are related to the management of funds, lack of strategic planning for investments, and limited integration with financial systems and the private sector. Moreover, legal and administrative issues also limit the flexibility of waqf institutions.

Another major issue in the existing waqf management in Malaysia is related to the lack of standardisation in the governance of waqf institutions in the country. Different State Islamic Religious Councils (SIRCs) in Malaysia operate under different regulations and rules. This has affected the ability to introduce new and innovative ideas, such as waqf crowdfunding, especially in high-impact areas like non-ruminant livestock. This has, in turn, limited waqf initiatives to conventional charitable activities.

In order to address the challenges, it is necessary to strengthen the existing governance structures, promote transparency, and align the initiatives with the national development agenda, especially with regard to issues such as food security. Financial innovation, especially with regard to waqf crowdfunding, is an opportunity to improve the effectiveness of fund mobilization, especially with regard to sectors such as poultry farming.

Figure 1: Waqf-Qard al-Hasan Blended Finance Model for Poultry Farming



According to the proposed model, the structure of waqf crowdfunding is designed as an Islamic financial system to support the development of non-ruminant animals, especially poultry, by clearly separating the different components. In the proposed model, cash waqf funds will only be used for financing infrastructure development, which is once-off, i.e., the construction of closed-house poultry, equipment, and other farm facilities. This is to ensure that the waqf asset is maintained, productive, and consistent with the concept of ta'bid, or perpetuity, where the infrastructure will generate ongoing benefits.

For operational purposes, the proposed model will adopt the Qard al-Hasan, or interest-free loan, financial contract. In this financial structure, financing will be made available to farmers for operational purposes, e.g., feed, animals, and maintenance, without interest. The farmer will only pay back the principal amount, which will then be used to finance other farmers. This will create a revolving effect, thereby promoting sustainability.

The distinction between waqf and Qard al-Hasan is a strong aspect of this model. This is because, unlike waqf, which offers permanent support for the development of the required infrastructure, Qard al-Hasan offers continuous support through financial flow, as it is repayable and reusable. This helps minimize the financial burden on the farmers without compromising the integrity of waqf funds.

The impact of this model is twofold. On one hand, the individual farmers will be positively impacted through increased productivity and income. On the other hand, the community as a whole will be positively impacted through increased production of chicken, which will translate into increased food security for the country as a whole. This, therefore, shows that this model is effective as it provides a solution for the development of the non-ruminant livestock sector through the transformation of waqf into a more productive financial tool.

5. Conclusion

The proposed model for waqf-based crowdfunding is found to have tremendous potential to harness Islamic social finance for sustainable development, especially for non-ruminant animals such as poultry, thereby promoting national food security. This is because the proposed model is found to alleviate the financial burden on farmers by providing an alternative solution that is not only feasible but also Shariah-compliant.

However, certain challenges need to be addressed. One of the challenges is the lack of coordination between the different State Islamic Religious Councils (SIRCs) with different regulations governing them. This is because, currently, the legal system does not clearly support the proposed model of waqf-based crowdfunding. This is due to the lack of clear regulations, thereby creating an uncertain environment.

Another significant issue to address is institutional capacity. Waqf institutions tend to be traditionally set up as administrative or charitable institutions and may not have the technical expertise to handle more complex and innovative forms of financing. Without proper governance structures, financial management systems, and technical expertise, it may not be an effective model. Moreover, there is also a risk to the non-ruminant livestock sector in terms of diseases, price risks, and other operational risks that may impact project sustainability.

Public awareness and stakeholder confidence also form a significant part of this model's success. Waqf crowdfunding and Qard al-Hasan-based models are relatively new forms of financing and may not be very well understood among potential donors and participants in these models.

However, despite all these challenges, the model presents a transformative idea, transforming the concept of waqf from a purely charitable concept to a more productive and sustainable concept. By focusing on the development of infrastructure and supporting farmers through interest-free financing, the model is not only contributing to economic empowerment and social welfare, but it has the potential to strengthen the non-ruminant livestock sector, food security, and socio-economic development in Malaysia.

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A Study on the Influence of Sports Experience on Tourism Behaviors

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Abstract: Sports participation has gradually become a core component of modern tourism development. Both sports activities and tourism consumption place a high value on experiential perception and active participant involvement. This paper aims to explore the effect of individual sports experience on tourists' overall travel experience, satisfaction level, willingness to engage in sports tourism, and destination revisit intention in the background of domestic tourism. Based on existing scholarly findings, this study developed measurement scales for key research variables and surveyed Taiwan residents aged 18 and above who had travelled domestically in the past year. Through purposive sampling, 695 valid responses were collected for empirical analysis. The analytical results reveal that sports experience is significantly and positively correlated with tourism experience, tourist satisfaction, sports tourism participation willingness, and revisit intention. This study further verifies that experiential participation in sports plays a vital role in shaping tourists' behavioral tendencies and their subjective evaluation of tourism destinations.

Keywords: *Revisit Intentions, Tourist Satisfaction, Sports Experience, Sports Tourism, Tourism Experience*

1. Introduction

In recent years, consumer consumption logic has shifted from simple material product purchase to experience-oriented value pursuit. Modern travelers are increasingly inclined to seek novel and meaningful interactive experiential activities in their leisure time (Pine & Gilmore, 2013). The experience economy has widely penetrated retail, entertainment, sports and other service industries (Bascur & Rusu, 2020; Duerden et al., 2015). Among them, tourism and leisure sports stand out for their immersive participation and value co-creation characteristics. In the field of sports tourism, tourists no longer regard experience acquisition as a single consumption behavior; instead, they jointly construct unique travel feelings through interaction with the scene environment and on-site service systems (Perić, 2010).

Previous academic works have confirmed the correlation between travel experience, satisfaction and post-trip behavioral intention. However, these studies adopted a simple linear research perspective and failed to deeply explore the internal psychological driving mechanism behind tourists' decision-making (Chen & Chen, 2010; Prayag et al., 2017). In addition, most of the existing theoretical models regard experience as a general abstract concept, without distinguishing experiential differences brought by different activity types (Weed & Bull, 2009). Sports experience, which features physical participation, emotional arousal and social interaction, forms an independent experiential category different from general tourism experience. To optimize the design and operational management of sports tourism projects, it is necessary to clarify how multi-dimensional sports experience affects tourists' perceptual judgment and behavioral response tendency (Perić, 2015).

To fill the research gaps mentioned above, this study constructed a comprehensive theoretical framework integrating the experience economy theory and the Theory of Planned Behavior (TPB). From the perspective of the experience economy, joining sports activities during travel belongs to active immersive participation, which can effectively enhance tourists' perceived experiential value through physical and mental engagement (Pine & Gilmore, 1999). Nevertheless, a single experiential value cannot fully explain the formation of subsequent behavioral intention. TPB makes up for this deficiency by interpreting the generation mechanism of behavioral intention from cognitive evaluation dimensions, including individual attitude, subjective norm and perceived behavioral control (Ajzen, 1991). The combination of the two theoretical perspectives can better explain the transformation path from tourists' experiential perception to subsequent travel decision-making, and help systematically clarify the influence mechanism of experiential stimulation on behavioral results.

Sports experience can be regarded as a multi-dimensional external stimulus, which influences tourism behavioral decision-making through emotional perception, such as travel experience and satisfaction, and further affects tourists' willingness to participate in sports tourism and destination revisit intention (Hosany & Gilbert, 2010; Prayag et al., 2017). Although sports tourism has long been recognized as an important branch of the tourism industry (Standeven & De Knop, 1999), relevant research mostly focuses on large-scale sports events and spectator-oriented sports tourism scenarios. Few studies pay attention to participatory sports experience embedded in daily domestic tourism activities (Gibson, 1998).

Against this research background, this paper focuses on discussing the impact of sports experience in the domestic tourism scenarios on tourism experience, tourist satisfaction, sports tourism participation willingness and revisit intention. The main purpose is to construct and verify the structural relationship model among variables, and to identify the internal mechanism of how experiential participation drives tourism behavioral decision-making. Different from traditional linear research models, this study comprehensively explains the joint driving effect of emotional experience and cognitive evaluation on tourists' travel decisions (Prayag et al., 2017).

2. Literature Review and Hypothesis Development

Theoretical Foundation: An Integrated Experience-Behavior Framework

This research is built on a composite theoretical system combining the experience economy perspective, the Theory of Planned Behavior and the Stimulus–Organism–Response (S-O-R) model. Within this integrated framework, sports experience serves as an external environmental stimulus, which can trigger tourists' internal psychological and emotional responses represented by tourism experience and satisfaction, and ultimately drive specific behavioral outcomes such as sports tourism willingness and revisit intention (Mehrabian & Russell, 1974).

The experience economy theory explains how immersive, participatory and value-co-creating activities generate unique perceived value through tourists' active engagement (Pine & Gilmore, 1999). However, this theory cannot fully interpret the logical path from experiential value to behavioral intention formation. TPB supplements this theoretical deficiency by analyzing individuals' behavioral intention formation process from attitude perception and behavioral control evaluation (Ajzen, 1991). The S-O-R model further integrates the above two theories, forming a complete mechanism research logic linking external experiential stimulus, internal cognitive and emotional evaluation, and final behavioral response.

Construction of Key Concepts

Tourism Experience and Sports Experience: The concept of "experience" has been widely applied in brand marketing, destination promotion and digital service scenarios in recent years, reflecting its important theoretical and practical value in commercial operation and academic research (Pine & Gilmore, 2013). Romiti and Sarti (2016) pointed out that sports and tourism are among the earliest and most typical application fields of experience economy theory. Academic and industry practitioners all recognize that the experience concept is not only the core of analyzing the operation law of experience economy, but also the key starting point for exploring tourist behavioral changes in sports and tourism (Wang, Li & Wong, 2021).

Tourism experience refers to tourists' overall psychological perception and emotional feedback in the process of traveling and visiting destinations. It is a typical hedonic consumption form that fits tourists' inner psychological needs and travel expectations (Schönherr, Peters, & Kuščer, 2023). Walls et al. (2011) believed that tourism experience has obvious multi-dimensional characteristics, jointly shaped by tourists' internal psychological state and external destination environment. Perić (2010) further summarized four core dimensions of tourism experience: entertainment perception, educational experience, aesthetic appreciation and escapism feeling. On the basis of existing research, this study defines tourism experience as a multi-faceted variable containing subjective perception and situational characteristics, which is formed when tourists gain pleasure, knowledge acquisition, aesthetic enjoyment and temporary escape from daily trivialities during travel.

Sports experience has gradually evolved into an independent experiential type parallel to general tourism

experience (Kurtzman, 2005). In view of the insufficient systematic discussion on sports tourism experience in previous literature, Perić (2010) sorted out the classification standard proposed by Weed and Bull (2009) and divided sports tourism into five categories based on tourists' participation mode and involvement degree, ranging from active participation to passive viewing. Referring to the abovementioned research results, this study defines sports experience as tourists' perception towards the interaction with activity projects and tourism destinations formed by their level of participation in sports and leisure activities (Weed & Bull, 2009).

Tourism Satisfaction, Sports Tourism Willingness, and Revisit Intention: Tourism satisfaction is a core indicator for evaluating tourists' overall perception and their comprehensive assessment of tourism destinations (He & Luo, 2020). Oliver (1993) put forward the classic definition of consumer satisfaction, regarding it as individuals' cognitive judgment on whether products or services meet their psychological expectations and actual needs. In tourism research, satisfaction is usually divided into three levels: service process satisfaction, destination hardware environment satisfaction and tourists' overall emotional psychological satisfaction (Santoso, 2019). This study defines tourism satisfaction as the degree of matching between tourists' travel expectation and experience, covering service quality perception, destination operation performance and overall psychological sense of acquisition.

Sports tourism willingness refers to tourists' tendency to take the initiative to participate in sports-related leisure activities during vacation. Sports participation is found to have become one of the main travel motivations (Markuš et al., 2019). In the sports tourism industry, sports characteristic projects are the key resources to enhance destination attractiveness and travel experience quality. Combined with the research needs, this study defines sports tourism willingness as individuals' tendency to take part in sports tourism activities again in the future, which reflects tourists' continuous interest and positive experiential accumulation in sports tourism (Škorić et al., 2021; Vegara-Ferri et al., 2020).

Revisit intention has always been a hot topic in tourism behavioral research, representing tourists' tendency to return to the same destination again (He & Luo, 2020; Nguyen et al., 2020). From the perspective of consumer behavior, revisit intention is similar to repeat purchase willingness in commodity consumption; that is, consumers have the tendency to choose the same product or service repeatedly. In tourism and leisure scenarios, it refers to the probability of tourists revisiting familiar destinations or choosing similar tourism services again (Markuš et al., 2019; He & Luo, 2020).

A tourism destination can be regarded as a special tourism product. Tourists' willingness to revisit and recommend to relatives and friends is an important embodiment of destination satisfaction and loyalty (Yoon & Uysal, 2005). Therefore, this study measures revisit intention from three dimensions: willingness to revisit independently, recommendation intention to others and positive word-of-mouth dissemination behavior (Nguyen et al., 2020; Santoso, 2019).

On the whole, all of the research variables in this paper have multi-dimensional attributes affected by emotional perception and cognitive evaluation (Walls et al., 2011; Prayag et al., 2017). Among them, tourism experience and satisfaction belong to emotional perception and comprehensive evaluation variables, while sports tourism willingness and revisit intention are behavioral intention variables derived from cognitive judgment. This division conforms to the integrated theoretical framework adopted in this study. Under the S-O-R model, tourism experience and satisfaction act as intermediary internal psychological variables between external sports experience stimulus and final behavioral response. From the perspective of TPB, this cognitive evaluation process further promotes the formation of tourists' behavioral intention (Ajzen, 1991). The division of variable dimensions in this paper provides solid theoretical support for explaining the influence path from experiential participation to tourism behavioral decision-making.

Hypothesis Development

Sports Experience as a Stimulus: From the experience economy perspective, sports participation is of an immersive experiential consumption mode, which can enrich tourists' sensory experience, emotional resonance and cognitive perception (Pine & Gilmore, 1999). In the research framework of this study, sports experience is taken as an external stimulus, which can arouse tourists' internal psychological and emotional changes, and further affect their cognitive evaluation and behavioral decision-making (Mehrabian & Russell, 1974). Sports experience not only can enrich tourists' overall travel experience, but also bring about positive

emotional satisfaction and strengthen their willingness to participate in similar activities in the future (Hosany & Gilbert, 2010).

Modern tourists are no longer satisfied with simple sightseeing; they prefer diversified and meaningful experiential activities to enrich personal spiritual perception through in-depth participation (Perić, 2010). A large number of empirical studies have confirmed that sports experiential participation can significantly improve overall travel experience quality (Herbold et al., 2020; Weed, 2008). Participating in major sports events and characteristic sports tourism projects can create more impressive and valuable travel memories for tourists (Wang et al., 2021). Adding sports activities to travel itineraries can also effectively enhance destination attractiveness and tourists' experiential value perception (Nishio, 2013; Vegara-Ferri et al., 2020).

In addition to improving travel experience quality, sports experience also plays a key role in shaping tourists' destination evaluation and subsequently affects behavioral intention. In the experience economy background, a high-quality sports experience can significantly enhance tourist satisfaction and stimulate destination revisit willingness (Romiti & Sarti, 2016). Existing studies have shown that sports-related factors such as destination image, service quality and perceived value can significantly affect tourist satisfaction and revisit intention (Markuš et al., 2019; Showkat et al., 2021). Similarly, research on sports event experience also proves that positive sports experience can effectively improve tourist satisfaction and return willingness (Jeong et al., 2019; Škorić et al., 2021).

Moreover, tourists' previous sports experience is found to have a significant predictive effect on their future sports tourism participation willingness (Škorić et al., 2021; Vegara-Ferri et al., 2020). Relevant empirical studies have also verified that sports experience is an important antecedent variable affecting subsequent sports tourism participation intention (He & Luo, 2020; Nguyen et al., 2020). Based on the above theoretical deduction and empirical research conclusions, this paper puts forward the following hypotheses:
H1: Sports experience positively influences tourism experience.
H2: Sports experience positively influences tourism satisfaction.
H3: Sports experience positively influences sports tourism willingness.

Tourism Experience as an Organism Response: In the S-O-R theoretical framework, tourism experience is regarded as the state of tourists' internal cognitive and emotional evaluation, which can directly affect subsequent emotional perception and behavioral intention (Mehrabian & Russell, 1974). Positive tourism experience can bring about tourists' emotional satisfaction and high perceived value, and both of these are important antecedent variables of overall satisfaction and behavioral intention formation (Chen & Chen, 2010; Prayag et al., 2017). In this logical path, tourism experience acts as a core intermediary mechanism, transforming external environmental stimulus into internal psychological evaluation and final behavioral response.

Experience perception is also a basic constituent element of behavioral theories such as TPB and attitude-behavior model (Ajzen, 2020; Sommer, 2011), which determines individuals' perception mode, interpretation logic and behavioral response to the external environment. From the experience economy perspective, the experiential element is the core driving factor of tourists' perceived value (Pine & Gilmore, 2013). Mossberg (2007) pointed out that tourism experience is affected by multiple factors such as physical environment, atmosphere, social interaction atmosphere and service quality, and all of these factors jointly determine tourists' overall destination evaluation.

Tourism experience can directly affect tourists' satisfaction level, which is the most intuitive comprehensive evaluation result of the travel process (De Vos et al., 2015). This evaluation not only will affect tourists' explicit behavioral choice, but also influence their internal psychological activities such as perception, cognition, memory accumulation, emotional change and self-identity construction. A good travel experience makes it easier to form positive memories and a cognitive attitude, and then subsequently guides travel decision-making. Existing research also confirms that satisfaction is closely related to tourists' behavioral intention, especially destination revisit willingness (Ali et al., 2015). Accordingly, the following hypotheses are proposed:
H4: Tourism experience positively influences tourism satisfaction.
H5: Tourism experience positively influences revisit intention.

Satisfaction as a Cognitive Assessment (TPB Integration): From the perspective of TPB, satisfaction represents individuals' positive cognitive evaluation result, which can help form a positive behavioral attitude towards future similar activities (Ajzen, 1991). This cognitive evaluation process plays a decisive role in behavioral intention generation; individuals tend to revisit activities with positive experience and a good evaluation attitude (Lam & Hsu, 2006). Tourism experience undertakes the transformation function from external stimulus to internal psychological evaluation, while satisfaction acts as a key cognitive intermediate variable connecting experiential perception and subsequent behavioral decision-making.

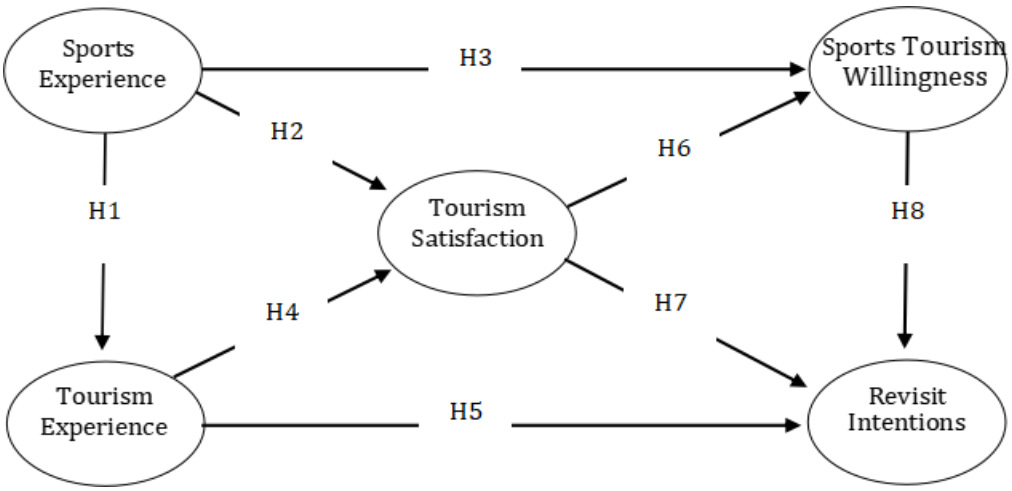
More and more studies have proved that satisfaction is a critical variable affecting tourists' behavioral intention, especially in the case of sports tourism. Empirical results show that satisfaction can significantly predict tourists' willingness to participate in sports tourism activities again (Chenini & Touaiti, 2018; Wang et al., 2021). Tourism and sports-related research also confirm that satisfaction can guide tourists' follow-up behavioral tendency and maintain their continuous preference for similar activities and destinations (Hall, O'Mahony, & Gayler, 2016; Showkat et al., 2021). In addition, tourists with high satisfaction are more likely to have strong revisit willingness, forming a stable logical correlation between satisfaction and destination loyalty (He & Luo, 2020; Nguyen et al., 2020).

To sum up, tourist satisfaction not only can improve tourists' willingness to participate in future sports tourism projects but also significantly enhances destination revisit intention. Therefore, the following hypotheses are proposed:
H6: Tourist satisfaction positively influences sports tourism willingness.
H7: Tourist satisfaction positively influences revisit intention.

Behavioral Intention Linkage: There is an inherent logical correlation among different behavioral intentions, showing obvious hierarchical structural characteristics. Specific domain intention, such as sports tourism willingness, can extend and promote broader behavioral tendency represented by revisit intention (Bagozzi, 1992). In tourism research, tourists' intention for specific experiential activities can predict their general behavioral tendency, such as destination loyalty and revisit behavior (Yoon & Uysal, 2005). Therefore, higher sports tourism participation willingness will strengthen tourists' revisit intention to the destination, and the two have logical consistency and mutual promotion in behavioral cognition.

Existing empirical research also supports the abovementioned correlation. Participation in sports and leisure tourism activities can significantly affect tourist satisfaction and revisit possibility (He & Luo, 2020; Markuš et al., 2019). Sports tourism willingness, whether through active participation or passive viewing, has become an important driving factor of tourists' revisit behavior (Markuš et al., 2019). Research literature generally shows that tourists with stronger sports tourism participation intention have a higher revisit tendency to the destination. Based on the theoretical reasoning and empirical evidence, the following hypothesis is proposed:
H8: Sports tourism willingness positively influences revisit intention.

Figure 1: Research Model



3. Methodology

Study Sample and Data Collection

This study adopted a questionnaire survey to collect research data from October 2018 to May 2019. The research objects were Taiwan residents aged 18 and above who had travelled domestically within the most recent 12 months and had participated in sports-related tourism activities. Purposive sampling was adopted to ensure that all respondents have a corresponding tourism and sports experience, meeting the research variable measurement requirements.

The questionnaire is divided into two parts: the first part uses a 7-point Likert scale to set the measurement items of all research variables; the second part collects respondents' demographics information (see Table 1). A total of 750 questionnaires were distributed and recovered. After eliminating the incomplete and invalid responses, 695 valid questionnaires were finally retained for subsequent data analysis.

Purposive sampling is suitable for theoretically driven research focusing on specific experiential scenarios, but it limits the external generalization of research conclusions. Taiwan has a mature tourism market with rich sports tourism resource endowments, which makes it suitable as the empirical research background for this study. Therefore, the research conclusions are more suitable for theoretical generalization rather than simple statistical popularization. Future research can further verify the applicability of this research model in different countries and for different tourism scenarios.

Table 1: Demographic and Geographic Information of Respondents (N = 695)

VARIABLE	FREQUENCY	PERCENTAGE
GENDER		
Male	361	51.9
Female	334	48.1
AGE		
18-20	107	15.4
21-30	261	37.6
31-40	143	20.6
41-50	98	14.1
Over 50	86	12.4
EDUCATION LEVEL		
Secondary school or below	35	5.0
High school	153	22.0
College	104	15.0
University	325	46.8
Graduate school or above	78	11.2
MONTHLY INCOME		
NT $19,999 or less	181	26.0
NT $20,000-39,999	220	31.7
NT $40,000-59,999	206	29.6
NT $60,000-79,999	52	7.5
NT $80,000 or above	36	5.2
AREA OF RESIDENCE		
Northern Taiwan	178	25.6
Central Taiwan	200	28.8
Southern Taiwan	203	29.2
Eastern Taiwan	62	8.9
Outlying islands	52	7.5
DOMESTIC TRAVEL FREQUENCY IN A YEAR		
1 time or less /year	148	21.3
2-4 times /year	388	55.8
5-10 times /year	150	21.6
11 times or above /year	9	1.3

Instruments and Measurement

All of the measurement items in this study were formulated referring to existing literature, covering five core variables: sports experience (SE), tourism experience (TE), tourism satisfaction (TS), sports tourism willingness (STW) and revisit intention (RI). All variables were measured by multi-dimensional scales, as shown in Table 2.

The sports experience scale includes three dimensions: Activity Experience, Place Experience and Interpersonal Experience, with four measurement items for each dimension. The dimensional division is based on the research framework of Kurtzman (2005) and Weed & Bull (2009). The tourism experience scale is divided into Entertainment Experience, Educational Experience, Aesthetic Experience and Escapist Experience, each with four measurement items, developed with reference to Perić (2010), Schönherr et al. (2023) and Walls et al. (2011).

Tourism satisfaction scale involves three dimensions: Service Demand, Quality Commitment and Overall Satisfaction, with four items for each dimension, drawing on Chenini and Touaiti (2018), Hall et al. (2016 and Showkat et al. (2021). The sports tourism willingness scale includes Arrange Sports Tourism, Invite Participate Sports Tourism and Seek Sports Tourism Opportunities, referring to Herbold et al. (2020), Škorić et al. (2021) and Vegara-Ferri et al. (2020). The revisit intention scale is measured by Re-travel Intention, Purchase Intention and Recommendation Intention, adapting the scale design of Chenini and Touaiti (2018) and Wang et al. (2021).

On the whole, all measurement scales were revised on the basis of mature scales in sports tourism, consumer behavior and experiential research fields. Combined with the research background and theme of this paper, the questionnaire items were appropriately adjusted and optimized to ensure content validity and practical applicability. At the same time, this study fully considers the multi-dimensional characteristics of tourism experience and behavioral response, which further improves the rationality of the measurement framework.

Table 2: Convergent Validity

CONSTRUCTS AND ITEMS	M	SFL	R2	CR	AVE
SPORTS EXPERIENCE (SE)				.86	.68
Activity Experience (ACE)	5.64	.85	.72		
Place Experience (PLE)	5.81	.86	.74		
Interpersonal Experience (IPE)	5.81	.75	.56		
TOURISM EXPERIENCE (TE)				.85	.59
Entertainment Experiences (ENE)	5.92	.75	.56		
Educational Experiences (EDE)	5.68	.83	.69		
Aesthetic Experiences (AEE)	5.77	.80	.64		
Escapist Experiences (ESE)	5.90	.69	.48		
TOURISM SATISFACTION (TS)				.88	.71
Service Demand (SED)	5.36	.81	.66		
Quality Commitment (QUC)	5.33	.84	.71		
Overall Satisfaction (OVS)	5.43	.87	.76		
SPORTS TOURISM WILLINGNESS (STW)				.93	.81
Arrange Sports Tourism (AST)	5.55	.89	.79		
Invite Participate Sports Tourism (IPS)	5.51	.93	.86		
Seek Sports Tourism Opportunities (SSO)	5.49	.88	.77		
REVIST INTENTION (RI)				.86	.67
Re-travel intention (RTI)	5.81	.84	.71		
Purchase Intention (PUI)	5.28	.68	.46		
Recommend Others Intention (REO)	5.64	.92	.85		

Note: Goodness of fit: χ^2=202.06, χ^2/d.f.=2.15, SRMR=.03, RMSEA=.04 (<.05), GFI=.96, AGFI=95, NNFI=.98, IFI=.99, CFI=.99 (>.90), PGFI=.67, PCFI=.77, PNFI=.76 (>.50).

SFL: Standardized Factor Loading; R^2: Square Multiple Correlation; CR: Construct Reliability; AVE: Average Variance Extracted.

Data Analysis

The data analysis process of this study was carried out step by step. Firstly, SPSS 22.0 was used for descriptive statistical analysis, item analysis, exploratory factor analysis and reliability test to screen and optimize questionnaire scales. Secondly, AMOS 22.0 was adopted for confirmatory factor analysis to test the fitting effect of the measurement model and verify the corresponding relationship between observed variables and latent variables.

Finally, structural equation modeling was used to test the path relationship among the core variables. This paper mainly examined the influence of sports experience and tourism experience on tourism satisfaction, sports tourism willingness and revisit intention. AMOS 22.0 was used to evaluate the overall fitting degree of the structural model, estimate path coefficients, verify research hypotheses and analyze the explanatory power of the model, following the analytical standard of Chang (2011).

4. Results and Discussion

Measurement Model Testing

This study used AMOS 22.0 to conduct confirmatory factor analysis and test the construct validity of five latent variables: sports experience, tourism experience, tourism satisfaction, sports tourism willingness and revisit intention. The overall model fitting effect is good: χ^2 = 202.06, df = 94, p = .00; χ^2/df = 2.15; GFI = .96; AGFI = .95; NFI = .98; CFI = .99; RMSEA = .041. Referring to the evaluation standard of Hair et al. (2010), this paper used standardized factor loading, construct reliability (CR) and average variance extracted (AVE) to test convergent validity. All factor loadings reach a significant level ($p < .01$), the CR value ranges from 0.85 to 0.93, and the AVE value is between 0.59 and 0.81, proving that the measurement model has good internal consistency and convergent validity (Jöreskog & Sörbom, 1984). Discriminant validity was verified by comparing the AVE value and correlation coefficient between variables, and all indicators meet the standard (see Table 3).

Individual indicators are close to the critical threshold but still within the acceptable range of academic research, especially for empirical research with a specific scenario background. All factor loadings are statistically significant and consistent with theoretical expectations. In general, the measurement model has an ideal fitting degree, reliability and validity, which lays a solid foundation for subsequent structural model analysis.

Table 3: Analysis of AVE Discriminant Validity

	AVE	SE	TE	TS	STW	RI
Sports Experience (SE)	.68	**.82**				
Tourism Experience (TE)	.59	.73	**.77**			
Tourism Satisfaction (TS)	.71	.54	.59	**.84**		
Sports Tourism Willingness (STW)	.81	.70	.48	.57	**.90**	
Revisit intention (RI)	.67	.63	.59	.76	.70	**.82**

Note: The AVE of each dimension is higher than the square of the correlation coefficient of each pair of variables, which suggests discriminant validity (Chang, 2011).

Structural Model Testing

This study used a structural equation model to verify all research hypotheses. The structural model fits well with the survey data: χ^2 = 218.7, df = 96; χ^2/df = 2.28; GFI = .96; AGFI = .95; SRMR = .03; RMSEA = .04. All of the eight hypothetical paths passed the significance test. Sports experience has significant positive influence on tourism experience (β = .72), on tourism satisfaction (β = .24) and on sports tourism willingness (β = .54). Tourism experience positively affects tourism satisfaction (β = .41) and revisit intention (β = .14). Tourism satisfaction has significant positive impact on sports tourism willingness (β = .27) and revisit intention (β = .46). Sports tourism willingness also significantly promotes revisit intention (β = .38). All research hypotheses are supported by the empirical data (see Table 4).

On the basis of statistical significance, this study further examined the magnitude of structural effects. The

findings indicate that sports experience exerts strong positive influences on tourism experience and sports tourism willingness, highlighting its role as a key antecedent variable in shaping sport tourism behavior. Moderate effects were observed from sports experience to tourism satisfaction, tourism experience to tourism satisfaction and revisit intention, and tourism satisfaction to both sports tourism willingness and revisit intention. These findings suggest that behavioral intention is shaped not only by immediate experiential stimulation but also by subsequent evaluative processes.

Furthermore, sports tourism willingness shows a significant positive effect on revisit intention, indicating that participation intention toward sport tourism activities can translate into broader destination loyalty behaviors. The structural model demonstrated satisfactory explanatory capability, accounting for 70% of the variance in revisit intention, 53% in sports tourism willingness, and 37% in tourism satisfaction. Overall, sports experience serves as the primary driving factor within the framework, whereas tourism satisfaction and sports tourism willingness operate as important mediating mechanisms linking experience and behavioral outcomes (see Table 5 and Figure 2).

Table 4: The Results of Hypothesis Tests

Path	Structural coefficient	t-Value	Test Result
H1 Sports experience → Tourism experience	.72	14.9*	Supported
H2 Sports experience → Tourism satisfaction	.24	4.02*	Supported
H3 Sports experience → Sports tourism willingness	.54	12.29*	Supported
H4 Tourism experience → Tourism satisfaction	.41	6.59*	Supported
H5 Tourism experience → Revisit intention	.14	3.48*	Supported
H6 Tourism satisfaction → Sports tourism willingness	.27	6.79*	Supported
H7 Tourism satisfaction → Revisit intention	.46	11.14*	Supported
H8 Sports tourism willingness → Revisit intention	.38	10.17*	Supported

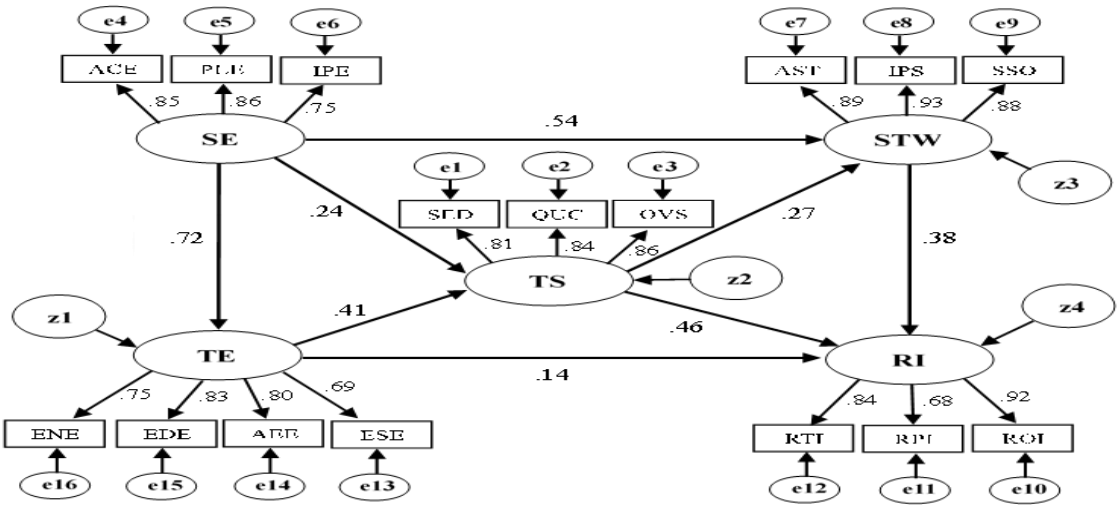
* $p<0.05$

Table 5: Direct, Indirect and Total Effects of Relationships

Predictor	Outcome Variable	Direct Effect	Indirect Effect	Total Effect	Effect Size
Sports Experience (SE)	Tourism Experience (TE)	.72	–	.72	Strong
	Tourism Satisfaction (TS)	.24	.30	.54	Moderate
	Sports Tourism Willingness (STW)	.54	.15	.69	Strong
	Revisit Intention (RI)	–	.61	.61	Strong
Tourism Experience (TE)	Tourism Satisfaction (TS)	.41	–	.41	Moderate
	Sports Tourism Willingness (STW)	–	.11	.11	Weak
	Revisit Intention (RI)	.14	.23	.37	Moderate
Tourism Satisfaction (TS)	Sports Tourism Willingness (STW)	.27	–	.27	Moderate
	Revisit Intention (RI)	.46	.10	.56	Moderate–Strong

Note. "–" indicates that no direct or indirect effect was specified in the structural model. Effect size interpretation follows standardized coefficient conventions: weak (< .20), moderate (.20–.49), strong (≥ .50).

Figure 2: SEM Results



R^2 values indicate that the model explains 70% of the variance in revisit intention, 53% in sports tourism willingness, and 37% in tourism satisfaction, demonstrating satisfactory explanatory power.

Discussion

Integrating sports characteristic projects into travel arrangements can transform traditional sightseeing tourism into in-depth experiential tourism with a sense of participation and memory. The research results confirm that sports experience and tourism experience jointly affect tourists' satisfaction, future sports tourism participation willingness and destination revisit intention. Although existing literature has discussed sports tourism from multiple research perspectives (Jeong et al., 2019; Markuš et al., 2019; Showkat et al., 2021), few studies explore the interactive relationship and internal mechanism of experiential variables in general tourism behavioral research. This study verifies that sports participation experience can affect, directly or indirectly, tourists' destination evaluation and behavioral decision-making.

There is a strong positive correlation between sports experience and tourism experience, which means that in-depth participation in sports activities can significantly enrich tourists' overall travel perception. This conclusion is consistent with the view of existing research that sports and tourism have complementary development characteristics (Herbold et al., 2020; Vegara-Ferri et al., 2020; Wang et al., 2021). The underlying reason for this correlation is that sports participation contains emotional resonance, social interaction and situational immersion, which can effectively enhance tourists' experiential value perception during travel (Perić, 2010; Weed & Bull, 2009). The high path coefficient of sports experience on tourism experience also reflects that modern tourists are more inclined to choose participatory experiential tourism rather than passive sightseeing.

The correlation hypotheses among tourism satisfaction, sports tourism willingness and revisit intention are all supported. Tourists with higher sports experience and tourism experience show stronger satisfaction, and further form higher sports tourism participation willingness and revisit intention. This research conclusion is consistent with the mainstream view in tourism research that satisfaction is an important intermediate variable connecting travel experience and behavioral intention (He & Luo, 2020; Hall et al., 2016; Showkat et al., 2021). In sports tourism scenarios, positive experiential memory will further encourage tourists to choose similar sports tourism projects in future travel.

The difference in path effect intensity also has important research implications. Sports experience has the strongest direct influence on tourism experience, while its driving effect on satisfaction and behavioral intention is relatively gentle. It shows that tourists' future travel decision-making is not only affected by immediate experiential perception, but also regulated by psychological expectation, experience and travel

scenario environment. Tourism behavioral formation is not a simple linear process, but a multi-stage cognitive evaluation cycle, in which satisfaction and participation willingness continuously strengthen tourists' revisit tendency.

In conclusion, sports participation experience has been closely combined with tourists' destination evaluation and future travel intention formation. Sports experience can bring not only travel pleasure and satisfaction on site, but also improve tourists' willingness to participate in sports tourism and revisit the destination. The research results further highlight the important status of participatory experiential activities in modern tourism development.

5. Conclusion and Implications

Theoretical Implications

This study constructs an integrated experiential-behavior research framework, systematically revealing the joint influence mechanism of sports experience and tourism experience on tourism satisfaction, sports tourism willingness and revisit intention in the domestic tourism background. Different from previous studies, which focused on perceived value and service quality cognitive variables, this paper highlights the decisive role of multi-dimensional experiential perception in shaping tourist behavioral intention.

This research clarifies the interactive relationship between sports experience and tourism experience. Previous studies mostly discuss the two concepts separately, while this paper verifies that sports participation can significantly improve overall tourism experience quality, supporting the view that active participation can create high experiential value and optimize destination perception (Perić, 2010; Weed & Bull, 2009). It is also confirmed in this study that both variables have multi-dimensional structural characteristics, which explains the complexity of tourists' experiential perception and behavioral response.

In addition, this paper enriches the research system of sports tourism willingness in domestic tourism scenarios, which has been less discussed in existing literature. The results prove that sports tourism willingness is affected by sports experience, tourism experience and tourism satisfaction, and it plays an important intermediary role between experiential variables and revisit intention. The research findings provide a new theoretical perspective for explaining the driving effect of experiential participation on tourism behavioral decision-making.

Managerial Implications

The research conclusions provide practical reference for tourism operators and destination management institutions. First of all, sports experience is confirmed as the core driving factor of tourist behavioral intention. Tourism destinations should focus on developing innovative and participatory sports characteristic projects to enhance tourist satisfaction, sports tourism participation willingness and revisit intention (Perić, 2015).

Secondly, destination managers should create an integrated experiential environment covering sports participation, entertainment leisure, knowledge popularization, aesthetic appreciation and escapism. By strengthening tourist interaction participation and emotional investment, destinations can form unique, memorable travel experiences and enhance market competitive advantage (Markuš et al., 2019; Yoon & Uysal, 2005).

Finally, tourism planning institutions can develop diversified sports tourism products and characteristic themed routes combining local cultural characteristics. Reasonable investment in sports tourism infrastructure and characteristic projects can effectively enhance destination attractiveness and cultivate long-term tourist loyalty (Kranjcevic, 2017; Markuš et al., 2019).

Limitations and Future Research

This study still has several limitations worthy of attention. First, the research sample adopts purposive sampling only in the Taiwan region, which restricts the external generalization of research conclusions. Although Taiwan's tourism and sports environment is suitable for this research, the conclusion cannot be directly applied to other cultural and geographical scenarios. Future research can verify the applicability of the

research model in different countries and tourism markets.

Secondly, this study mainly relies on tourists' self-reported questionnaire data, which may be affected by common method bias. Although procedural and statistical control measures have been adopted, the interference of homologous variance cannot be eliminated. Follow-up research can adopt multi-source data collection, experimental design and longitudinal tracking method to improve research rigor.

Thirdly, although the measurement scale is revised on the basis of mature literature, it still needs further optimization to adapt to the characteristics of different tourism scenarios. Tourists' expectations and experiential perception also have obvious differences among different demographic groups and behavioral types. Future research can further examine the path difference of the model among different tourist segments.

Conclusion

This paper constructs a comprehensive theoretical framework to explore the influence of sports experience on tourism behavioral intention in domestic tourism scenarios. The empirical results confirm that sports experience plays a significant role in shaping tourists' perceptual evaluation and future behavioral tendency.
Tourists' travel decision-making is jointly driven by immediate experiential perception and subsequent cognitive evaluation. Sports experience does not affect tourism behavioral results through a single linear path, but acts on revisit intention through intermediate variables such as tourism experience, satisfaction and sports tourism willingness. This study clarifies the internal mechanism of participatory sports experience in driving tourism behavioral decision-making.

In addition, participatory sports experience can effectively enhance tourism value perception and stimulate positive behavioral intention. From a practical perspective, destination operators can create more in-depth experiential sports tourism projects to improve tourist satisfaction and consolidate revisit willingness. On the whole, this research enriches the theoretical research of sports tourism behavior and also provides practical operational suggestions for tourism destination development.

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Exploring Students' Early Understanding of Value Creation in Management Accounting: A Qualitative Classroom-Based Study

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Abstract: This study investigates how students at the beginning of the learning process develop the knowledge of value creation in management accounting following a simple lesson in the classroom. The study has been carried out using a qualitative classroom-based design by analysing the written responses of 24 students enrolled in a Management Accounting class. The data were gathered using open-ended questions that elicited responses from the students regarding the definition of value creation, the role of management accounting information in managerial decision making and suggestions for teaching methods to enhance their understanding of management accounting information. Thematic analysis was used to analyse the responses. The findings reveal that the students' early knowledge of value creation was predominantly financially related, with the majority of students linking value creation with profit, costs, benefits and efficient use of resources. Other students showed more of a sense of the wider picture by making connections between value creation and customers, stakeholders, quality, sustainability and long-term business performance. Students also saw management accounting information as a support to cost analysis, pricing, profitability and decision making. Students recommended that using real-world examples, practice exercises, providing a clearer explanation, summarizing content, and speaking more slowly would help them understand the material. The study reveals that students are starting to understand that there is more to value creation than just money and that management accounting has a broader and more practical dimension as a decision-making tool.

Keywords: *Accounting education, Classroom-based study, Management accounting, Thematic analysis, Value creation.*

1. Introduction

Management accounting is a vital tool for managerial decision making, planning of business activities, monitoring business performance and implementation of the business strategy (Salmanzadeh et al., 2022). Management accounting is a profession that provides expertise in financial reporting and control, partnering with management decision makers, developing planning and performance management systems and providing expertise in financial reporting and control to assist organisational strategy (IMA, 2008). This definition transcends the concept of management accounting being only a technical accounting role to instead making it a decision-support process that assists managers in understanding information and responding to it.

This more comprehensive management accounting role is closely linked to the notion of value creation, which is a key concern in modern business education. To create value, the organisation has to comprehend the relationships between the resources, processes, decisions and outcomes (Tapaninaho & Heikkinen, 2022). IFAC states that only a firm grasp on the concept of value, which must be defined, created, delivered, and sustained, will enable organisations to effectively measure and communicate value (IFAC, 2020). Likewise, the CGMA Global Management Accounting Principles point out that management accounting can support improved decision-making, risk management and safeguarding of organisational value creation (CGMA, 2014). The following ideas indicate that management accounting students need to not only develop accounting skills, but also recognize the accounting information's role in aiding decision making, which creates value for the organisation.

But for students at the beginning of their learning of management accounting, it will be hard to understand the creation of value. At first, students might think of making value that can be in the form of profit or cost reduction, but once they have a better grasp of the actual meaning of value, they can also consider the value for the customer and the quality of the product or service, the ability of the employees, the efficiency of the operations, sustainability, and the value for the stakeholders. There is a requirement for relevant information, both financial and non-financial, to support value creation over the long term and decision making (CGMA,

2014). That is, students must learn to relate accounting information to real business situations and not confine management accounting to just calculation and reporting.

Conceptual knowledge should thus be developed into applied understanding, as this is the need of accounting education (Carvalho & Almeida, 2022). Past accounting education research suggests that experiential learning can be used to help develop students' critical thinking and problem-solving skills, as it allows them to 'do', 'reflect', 'think', and 'apply' what they have learnt (Apostolou et al., 2019). In the field of management accounting education, researchers have also explored the need to have active learning approaches to help students develop meaning rather than being given technical knowledge (Korhonen et al., 2021). This is relevant because value creation is not only a definition to be memorised. It is a concept that students must learn to apply when analysing managerial decisions, business trade-offs, financial consequences, and non-financial outcomes (Butler et al., 2019)

This study is situated in the context of an introductory classroom session on Management Accounting for Value Creation. Data were collected through a student reflection form after the lesson. The form asked students to reflect on their understanding of value creation, explain how management accounting information can support managerial decision-making, identify financial and non-financial factors related to value creation, respond to a simple business scenario, and suggest ways to improve the teaching approach.

The present study focuses on students' written responses because these responses provide useful evidence of how students make sense of value creation at the beginning of the course. Rather than testing relationships between variables, this study adopts a qualitative classroom-based approach to examine students' early understanding. This approach is appropriate because qualitative descriptive research aims to provide a clear summary of participants' views in everyday terms, while thematic analysis offers a flexible method for identifying patterns across qualitative data (Sandelowski, 2000; Braun & Clarke, 2006).

The purpose of this research is to investigate the initial level of understanding of value creation in management accounting following an introductory class and session in the classroom. Specifically, the study covers the concepts that students associate with value creation, their explanations of the role of management accounting information in managerial decision-making, and the teaching methods they recommend for enhancing their learning. This study's emphasis on students' initial reflections offers a window into how students start to make links between value creation and business decisions and the concepts of management accounting in the classroom.

The study has three research questions. It first examines the students' understanding of value creation in a management accounting context. Second, it investigates students' explanations of the function of management accounting information in the process of managerial decision making. Third, it explores how students would like teachers to teach them about value creation in management accounting.

The remainder of this paper is organized as follows. The literature review is presented on management accounting, value creation and the theories of learning for the study. The methodology explains the qualitative classroom-based design and thematic analysis process. The results reflect students' attitudes to value creation, decision making and instruction. Lastly, the limitations of the study and recommendations for future studies are summarized.

2. Literature Review and Underpinning Theories

Management Accounting and Value Creation

Management accounting is no longer a one-sided affair of recording costs and reporting internally. Now it is widely known as a function of decision support in assisting in planning, controlling, monitoring performance and supporting the implementation of organisational strategy (Jakobsen, 2024; Sutjahyani, 2025). Management accounting is a profession that relates to the process of assisting management in making decisions, developing planning and performance management systems, and providing advice and support in financial reporting and control (IMA, 2008). This definition is important for the present study because it

positions management accounting as an active contributor to managerial decisions, rather than a passive process of preparing accounting information (IMA, 2008; Pedroso & Gomes, 2024).

The connection between management accounting and value creation is also emphasised in professional accounting literature. IFAC explains that before an organisation can measure, track, or communicate value, it must first understand how value is defined, created, delivered, and sustained (IFAC, 2020). This suggests that value creation is not limited to profit generation. It also involves how organisations use resources, manage activities, serve customers, improve processes, and sustain long-term outcomes (Aithal, 2023; Aksoy, 2023). In this sense, management accounting supports value creation by helping managers understand the financial and non-financial consequences of business decisions (IFAC, 2020; Ribeiro et al., 2024).

The Global Management Accounting Principles further support this view by highlighting the role of management accounting in helping business decision-makers create and preserve value (Susilowati, 2023). The principles also reflect the growing importance of sustainability, analytics, and broader organisational performance in modern management accounting practice (AICPA & CIMA, 2026). This is relevant to accounting education because students need to understand that management accounting information is not only used to calculate cost or profit. It is also used to support decisions that affect customer satisfaction, operational efficiency, product quality, employee performance, and long-term business sustainability (Lutfi et al., 2022).

For students who are newly introduced to management accounting, value creation can be conceptually challenging (Alawattage & Wickramasinghe, 2026). Students may first understand value creation in simple financial terms, such as increasing profit, reducing costs, or improving revenue. While this understanding is not wrong, it is incomplete. A broader understanding requires students to connect financial information with non-financial factors, such as customer satisfaction, quality, service performance, employee capability, and stakeholder value (Hristov et al.,2024). Therefore, the concept of value creation provides a useful basis for examining how students begin to interpret management accounting as a decision-oriented subject.

Students' Understanding of Management Accounting Concepts

Management accounting concepts often require students to connect technical knowledge with business judgement (Venkatesh et al., 2023). Students may learn tools such as cost analysis, budgeting, variance analysis, pricing decisions, or cost-volume-profit analysis, but conceptual understanding depends on whether they can explain how these tools support managerial action. This distinction is important because students may be able to identify management accounting techniques without fully understanding how the information produced by those techniques contributes to value creation.

In the context of accounting education, students' early understanding should not be judged only by whether they can reproduce textbook definitions (Renaldo & Sevendy, 2023). They use their written explanations, examples, and reflections to show how they are making sense of new concepts (Byrne & Flood, 2004; Dellaportas et al., 2023). It is particularly important for a subject like value creation, as the idea involves students thinking beyond the calculation. These factors must be taken into consideration: to consider how accounting information is used in making decisions in relation to what should be produced, how it should be priced, where the cost of production should be reduced, how the quality should be improved, and how financial and non-financial outcomes of actions should balance.

In this study, then, the students' responses are taken as evidence of initial conceptual development. The Week 1 form conveyed to students the following concepts: Value creation, examples of management accounting information, financial and non-financial factors, topic application to a business situation, and recommendations for teaching. These are good questions to ask about students' initial understanding, as they ask students to articulate the concept rather than check off an answer.

Constructivist Learning Theory

Constructivist learning theory is the theory applied in this study. Students are not passive receivers of knowledge but learners who construct their own knowledge in a process of building on pre-existing knowledge (Jayasinghe, 2021; Sithole & Pereira, 2019). Rather, they build understanding by relating new information to previous knowledge, classroom explanations, examples, discussion and reflection. This theoretical lens is

appropriate for the current study as the emphasis is on achievement as measured by a test score. The emphasis is on value creation and how students will explain it after being introduced to the concept.

Management accounting is not only technical, as stated by Jayasinghe (2021) and Oguguo (2015), but it also has a management side that is more suitable to be taught using constructivism. Interpretation, judgement and application to business situations required. Constructivism in management accounting education is discussed by Korhonen et al. (2021), and it is suggested that active and authentic learning environments may enable the student to become more engaged in the learning of management accounting knowledge. The study reveals that the education of management accounting can be improved if students are encouraged to do knowledge construction in addition to merely receiving the knowledge through lectures.

In this study, the written responses of the students are taken as a component of the meaning-making process. Students' definitions of value creation, their explanation of the information that management accounting provides to managers, and their ideas for improving the teaching of this topic indicate what they now know about the topic. Profit or cost reduction could be the primary meaning of value creation for some students. It can also be linked with customer satisfaction, resource utilization, decision making, or value creation for stakeholders. The differences are significant as they indicate the variation in early conceptualization following the introductory class.

The study is, therefore, primarily built on the constructivist learning theory. It enables the study to focus on students' answers as not just right or wrong, but as indicators of learning emerging. This is suitable for a classroom-based qualitative study, as the research objective is to examine the process of the students' early understanding of value creation in management accounting.

Experiential Learning and Reflection in Accounting Education

While constructivist learning theory is used as the primary theoretical framework, experiential learning theory is introduced as an appropriate supporting theory (Ahmed, 2019; Butler et al., 2019; Hassall & Joyce, 2014). According to Kolb's experiential learning theory, learning is an active process that involves transforming experience into knowledge. The concrete experience, reflective observation, abstract conceptualisation and active experimentation (Kolb, 1984) are the four components of the learning cycle that are commonly associated with it. This framework is relevant because students in this study engaged in an introductory class, had written responses to the topic and offered suggestions about how future teaching might enhance their understanding.

The relevance of experiential learning to accounting education is particularly significant for accounting students because they must have experiences in which accounting concepts are related to practice. Experiential education in accounting is not simply about doing activities, according to Butler et al. (2019). Students must do, reflect, think and apply. They also explain that experiential education is able to help students think critically and solve problems in the learning of accounting. This directly relates to the present study, as the students' reflections indicate whether students are starting to shift from conceptual to applied understanding.

This perspective also contributes to the understanding of why the suggestions made by the students for improvement in teaching are important. Suggestions should not be viewed solely as class feedback if students ask for real-life examples, exercises, to slow down the explanation, or to make it clearer how the explanation applies. They can suggest what students require to shift from teaching to learning. Real business examples and practical scenarios can facilitate students in understanding that accounting information is used in the decision-making process, in managing trade-offs and in creating value in management accounting (Christ et al., 2016).

The pedagogical dimension is thus reinforced by the experiential learning. It promotes the concept that learning about value creation can be facilitated by thinking about value creation, using examples, and involving students with business scenarios. This is in line with the qualitative focus of the study in the classroom, particularly the third research question, which is on teaching approaches that may improve students' understanding.

Qualitative Classroom-Based Inquiry

This study has a qualitative approach based on classroom observation since it investigates students' early understanding rather than testing statistical relationships. A qualitative approach can be used when the researcher wants to understand the meaning, explanation, and experiences of the participants (Alase, 2017; Fossey et al., 2002). In this study, students' written responses are used to gain insight into their conceptions of value creation, their conceptualisation of management accounting information, and their ideas about how teaching could be enhanced.

A qualitative descriptive approach will be used for this study. Qualitative description is helpful when the purpose is to give a complete description of participants' reactions in "real-life" terms, as Sandelowski (2000) writes. This is similar to the current investigation as it does not attempt to develop a complex theory or test a model. The aim is to explain and analyse students' initial comprehension as derived from their written answers.

Thematic analysis can also be used to analyze the data. Thematic analysis has been defined by Braun and Clarke (2006) as a flexible approach to identifying, analysing and reporting patterns in qualitative data. This approach is suitable because the key findings from the students' written responses can be thematised (Maguire & Delahunt, 2017; Yukhymenko et al., 2014) as value creation is equated with profit generation, management accounting is seen as a decision-making tool, awareness of non-financial factors and a positive attitude towards practical teaching methods.

Thematic analysis enables the study to be faithful to the students' own language and to yield organised findings. This is important as the study is not seeking to generalise to all accounting students. Rather, it seeks to offer a concise report of the understanding of value creation by one group of students, following a lesson on management accounting.

Literature Gap and Position of the Present Study

As revealed by the literature surveyed, there is a close relationship between management accounting and the creation of value and decision-making. The importance of management accounting for planning, performance management, strategy, and value creation is the focus of professional accounting sources. Other literature on accountancy education also indicates that active, reflective, and experiential learning methods are preferred by students. Focusing, however, less attention has been given to students' very early grasp of the wide-ranging concepts of management accounting, particularly soon after their first exposure in the classroom.

This study aims to fill this gap by looking at the written feedback given by students following their first class in management accounting for value creation. The study is not an attempt to measure learning improvement and/or test causal relationships. Rather, it presents students' conceptions of value creation, their explanations of the function of management accounting information in decision-making, and the ways they think this might be enhanced through teaching.

The study is thus set up as a qualitative classroom-based study of the early conceptual understanding of students. Constructivist learning theory is used as the main theory that frames students as active meaning constructors. From the pedagogical point of view, the theory of experiential learning is applied: the theory of "how to account education" is explained by reflection, practical examples and the process of applying. These views together offer a suitable starting point to analyse the way students start to develop an understanding of the creation of value in management accounting.

3. Research Methodology

Research Design

The research method used in this study was qualitative and exploratory research that was conducted in the classroom. Appropriateness of design was justified as it was designed to explore the early understanding of value creation in management accounting, rather than hypothesis testing and statistical relationships. Since the focus was on students' written explanations, interpretations, and suggestions, a qualitative approach allowed the study to examine how students made sense of the concept after an introductory classroom session (Segolsson et al., 2017).

The study is also descriptive in nature. Qualitative description is suitable when a study seeks to provide a clear and direct account of participants' views using language that remains close to the data (Sandelowski, 2000). This matched the purpose of the present study, which was to understand how students defined value creation, how they explained the role of management accounting information in decision-making, and what teaching approaches they believed could improve their understanding.

The study was conducted in the context of an introductory classroom session on Management Accounting for Value Creation. During the session, students were introduced to the key ideas related to value creation and the role of management accounting information in supporting business decision-making. After the lesson, students completed a reflection form that gathered their views on their understanding of the topic and their suggestions for improving the teaching approach.

This context was suitable for the study because it captured students' initial responses after being introduced to the topic. Their written reflections gave good insight into how they started to grasp the concept of value creation in management accounting and how they related the concept to managerial decision making. The subjects were students of one classroom group, which studied the concept of Management Accounting for Value Creation. A total of 24 student responses were included in the study. The participants were sampled purposefully within the classroom. The purpose of the study was to explore the views of the students who had taken part in the learning session and filled out the reflection form.

The main data for this study came from the open-ended questions. Students were asked what value creation means, and what sort of examples of how information in management accounting could help management make better decisions. They were also required to recognize financial and non-financial factors affecting value creation, answer a basic business scenario and make suggestions for improvement of the teaching method.

The students were allowed to share their understanding using open-ended responses, which were appropriate for the study. This enabled this analysis to not only determine students' understanding of the topic, but also how they understood it.

Data Analysis

The thematic analysis method was used to analyse the data. Thematic analysis is a flexible qualitative approach that identifies, analyses and reports patterns in qualitative data (Braun & Clarke, 2006). It was appropriate for this study, as the answers were short written reflections, which were amenable to coding in terms of recurring themes.

This analysis process consisted of six stages, adapted from Braun and Clarke's (2006) approach. The students' answers were read multiple times to familiarize the students with the data. Secondly, codes were created from meaningful words, phrases and ideas from the answers. Third, codes that were related were aggregated into possible themes. Fourth, themes were checked to make sure that they were in line with the children's responses. Fifth, the themes were identified and labelled. Lastly, selected student quotes were used to support the interpretation of the findings.

The coding involved in the process was on the three research questions:

- Students' definitions of value creation
- Students' explanations of management accounting information in decision-making
- Students' recommendations on how to enhance teaching and learning

Recurring ideas that were considered during the analysis included profit, cost reduction, use of resources, customer satisfaction, decision making, financial and non-financial factors, real-life examples, exercises, and teaching explanations. These were then elaborated into larger themes.

Key points that were considered during the analysis included profit, cost reduction, customer satisfaction, decision-making, real-world examples, exercises, and a clearer teaching explanation. These recurring ideas were then clustered into larger ideas.

Steps were undertaken to ensure the trustworthiness of the qualitative analysis. First, the analysis was based on the students' initial written answers. This minimized overinterpretation and made it more likely that the results were a true representation of students' explanations. Second, the themes were generated by multiple readings of the answers, not by a preconceived notion. Third, representative quotations were provided in the findings to provide evidence of the themes.

An audit trail was also ensured as raw responses were coded and then finally thematised to form final codes. This is crucial because in qualitative research, interpretations are created transparently. Thematic analysis can be used to generate credible results as long as the researchers specify the coding and theme-building process and the interpretation of the analysis (Nowell et al., 2017).

Ethical Considerations

Students' privacy and confidentiality have been protected through ethical care. The learned responses that were analyzed were only those that were relevant to the research questions, including students' written reflections on value creation, management accounting information and teaching approaches. The analysis and reporting of the research did not include any information that would identify individual students.

The results are reported anonymously. Students are encouraged to refer to general labels S01, S02 and S03 instead of identifying any student by name. This strategy enabled the responses of students to be used as evidence in the findings, with the students' confidentiality being maintained.

The study was also not designed to test the performance of a particular student. Rather, the intention was to examine students' preliminary knowledge of creating value in management accounting. The data were gathered in a classroom setting and the answers given were treated with sensitivity and the analysis was directed at common themes that emerged, rather than at individual students.

4. Findings

The results of the 24 students' responses that followed the introductory class on Management Accounting for Value Creation are given in this section. The analysis is based on students' written responses to the open-ended questions, especially in relation to students' definitions of value creation, explanation of how management accounting information is used in managerial decision making and recommendations for improvements to the teaching approach.

The results are presented by the following research questions:

RQ1: What is the meaning of value creation in the field of management accounting?
RQ2: What is the function of management accounting information for managing decisions?
RQ3: What are the students' recommendations to enhance the knowledge of value creation in management accounting?

The findings from the analysis resulted in 3 major themes and 7 sub-themes (Table 1)

Table 1: Summary of Themes from Students' Written Responses

Research Question	Main Theme	Sub-themes
RQ1	Students' early understanding of value creation	Value creation as profit and benefit, value creation as efficient use of resources, value creation as stakeholder and customer value
RQ2	Management accounting as decision-support information	Cost and pricing decisions, profitability and product decisions, cost reduction and customer satisfaction, financial and non-financial factors
RQ3	Preferred teaching approaches	Real-world examples, practical exercises, clearer explanations, a slower pace, and short summaries

Students' Definitions of Value Creation in Management Accounting

The first question of the research aimed to explore what students understood by value creation in management accounting. Overall, the responses demonstrate that students had a rudimentary, but emerging, knowledge of the value creation. The majority of the students who were involved were linking value creation to profit, cost, benefit, resources, and business improvement. This means that the primary online concept that students had of value creation was related to money.

Some students were able to link value creation with customers, stakeholders, sustainability and long-term value for the business; however, beyond a narrow financial perspective. This indicates that the students' grasp was not consistent. Some were simple answers and monetary-based, and others indicated a wider perception of non-monetary and stakeholder value.

Table 2: Students' Definitions of Value Creation

Sub-theme	Description	Sample Student Responses
Value creation as profit and benefit	Students understood value creation as increasing profit, benefit, or business worth.	"making decisions that increase the overall benefit of the business" (S01)
Value creation is a benefit greater than the cost	Students linked value creation to generating benefits that exceed costs.	"how business uses its resources, decisions, and activities to generate benefits greater than costs" (S06)
Value creation as efficient use of resources	Students recognised that businesses create value by using resources effectively.	"It's about turning resources into something more valuable than what you started with." (S17)
Value creation as customer and stakeholder value	Some students included customers, employees, shareholders, and long-term value.	"using a company's resources, both financial and non-financial, to increase the worth of the business for its stakeholders" (S10)

The first pattern reveals a lot that many pupils had an idea of value creation as a financial result. The terms they used to describe their answers were often profit, cost, benefit and return. Such as one pupil who said value creation is "making decisions to increase the overall benefit of the business" (S01), and another pupil said it is "profit or benefit which is greater than the cost" (S24). A business creates value when the benefits it produces are greater than the costs it takes to produce them. These responses indicate that students might have grasped the basic concept that when a business is operating, the benefits it provides to society are greater than the costs.

The second pattern relates to the efficient use of resources. Some students explained value creation as the process of transforming resources into something more valuable. For instance, S17 stated that value creation is "turning resources into something more valuable than what you started with." Similarly, S21 explained that value creation involves using "money, time, materials, and people" to produce products or services that are worth more to customers than the cost of making them. These responses show a more developed understanding because students connected resources, costs, customers, and business output.

The third pattern shows that a smaller group of students understood value creation more broadly. These students linked value creation to customers, stakeholders, employees, sustainability, and long-term business outcomes. For example, S10 explained that value creation involves using both financial and non-financial resources to increase business worth for stakeholders. This response suggests that some students were beginning to understand value creation as more than profit generation.

It can be highlighted that the findings for RQ1 suggest that students' early understanding of value creation was financially grounded but gradually expanding. Most students began with profit, cost, and benefit. A smaller number demonstrated a broader view that included customers, stakeholders, and non-financial value.

Management Accounting Information as Support for Managerial Decision-Making

The second research question involved how students explained the role of management accounting information in supporting managerial decision-making. The answers indicate that there was a general

awareness among students regarding the role of management accounting as an information source to guide management in making decisions. They were primarily concerned with cost analysis, pricing, profitability, product decisions, and cost reduction in their explanations.

Some students also demonstrated a broader understanding, providing explanations on how management accounting information can contribute to the manager in the process of balancing cost reduction, customer satisfaction, and quality improvement.

Table 3: Students' Views on the Role of Management Accounting Information

Sub-theme	Description	Sample Student Responses
Cost and pricing decisions	Students explained that management accounting helps managers calculate costs and set suitable prices.	"Management accounting helps a manager decide the right price for a product by knowing its cost, so the business can make a profit." (S01)
Profitability and product decisions	Students linked management accounting to decisions about product profitability and business choices.	"Using cost-volume-profit analysis to determine if a new product line will be profitable." (S03)
Technical decision-making tools	Some students identified specific management accounting tools.	"A manager can use a Relevant Cost Analysis to decide whether to make or buy a component." (S10)
Cost reduction and customer value	Students recognised that management accounting can support decisions that reduce costs without reducing quality.	"Managers can cut unnecessary costs without affecting quality." (S02)
Financial and non-financial factors	Students identified both financial and non-financial factors that affect value creation.	Financial: profit, cost, revenue. Non-financial: customer satisfaction, quality, brand reputation.

The most frequent answer was that management accounting provides managers with information on costs and price setting. For instance, S01 said, management accounting assists managers in "pricing the right price of a product based on knowing the cost of the product." Likewise, S02 explained how cost information assists managers in establishing a selling price to cover costs and maximize profit. These were responses to the question of pricing, which were among the most clear-cut examples of management accounting decision support that students encountered.

Several students also identified management accounting with certain tools and techniques. This comprised cost-volume-profit analysis, relevant cost analysis, make-or-buy decision, Activity-Based Costing, variance analysis and marginal costing. An example of this is that S03 mentioned cost-volume-profit analysis to help with the decision of whether introducing a new product line would be profitable or not. S10 mentioned relevant cost analysis for make-or-buy decisions. S17 said that ABC could be used to eliminate waste of resources and target resources on the features that customers value.

There were instances where students were able to relate the information from management accounting to managerial decisions, as evidenced in these responses. Not all of these explanations were on the same level, however. Some students offered detailed responses, others gave shorter answers like 'cost analysis', 'pricing decisions', 'provide financial information', or 'for better decision making'. This indicates that students were able to recognize the general purpose of management accounting, but they were not quite ready to elaborate on how management accounting can serve decision-making.

The business scenario question attracted more applied answers. Students were asked what they think management accounting can do for a company to improve customer satisfaction and to reduce the cost of the company. A lot of students described how management accounting could enable managers to detect waste, analyse costs, track performance, and enhance the quality of services or products. S02 stated that Management Accounting will give relevant data and analysis to enable managers to determine high-cost activities and eliminate unnecessary costs without compromising on quality. S15 also said that management accounting can

present cost information and performance reports, enabling managers to lower costs and enhance customer service.

Students also identified the financial and non-financial factors that affect value creation. Profit, cost, revenue growth, cash flow, cost control, return on investment and cost of capital were the most frequently occurring financial factors. The most frequently mentioned non-financial factors were customer satisfaction, customer loyalty, brand reputation, employee skills, product quality and customer feedback.

Table 4: Examples of Financial and Non-Financial Factors Identified by Students

Financial Factors	Non-Financial Factors
Profit	Customer satisfaction
Cost	Customer loyalty
Revenue growth	Brand reputation
Cash flow	Employee skills
Cost control	Product quality
Return on investment	Customer feedback
Cost of capital	Service quality

The results indicated that students were able to make a simple distinction between financial and non-financial factors. Many of the responses mentioned the factors, but did not discuss how both types of information are used in the decision-making process. This suggests that the integration of financial and non-financial information was an area that needed improvement for students.

It can be noted that the results for RQ2 indicate that the students perceived the management accounting primarily as a tool for cost control, pricing, profitability analysis and decision support. In a smaller sample, a more holistic perspective emerged with the students connecting management accounting information with customer satisfaction, quality improvement, waste reduction and long-term value creation.

Students' suggestions for improvement of teaching approach

The third research question focused on students' recommendations for enhancing their knowledge about value creation in management accounting. Overall, many students said that the teaching approach was acceptable. Some answers indicated that there was no need for improvement, citing such responses as “nothing”, “none”, “don't have”, “the teaching approach does not need improvement”, and “everything is good”.

But some of the students made suggestions that indicate the need for more practical and application-based learning. The most frequently made suggestions were to provide real-world examples, exercises, explanations, a faster pace, and short summaries.

Table 5: Students’ Suggestions for Improving the Teaching Approach

Suggestion	Description	Sample Student Responses
Use more real-world examples.	Students wanted examples connected to actual business situations.	“More examples of real-time business.” (S13)
Provide clearer practical examples.	Students wanted a clearer explanation using real-life cases.	“Please explain the topic with a clear example in the real world that is easier to understand.” (S19)
Include exercises and business cases.	Students wanted opportunities to practise applying the topic.	“exercises related to real business situations, so it is easier to understand the topic.” (S08)
Provide short summaries	Students wanted a recap or summary at the end of each topic.	“provide short summaries at the end of each topic.” (S16)
Focus on key points.	Some students preferred a clearer focus on important ideas.	“Maybe less time on the details and focusing more on the highlights.” (S12)

The most frequent recommendation was to utilize more practical scenarios. Examples linking management accounting concepts to business situations seemed to be appreciated by students. This aligns with the previous research wherein students were able to understand the meaning of value creation, and were able to recognize cost-related decisions, but were not yet able to apply the concept to a wider extent. Real-world examples can help students to appreciate the way in which value is created in real-world managerial decisions.

Pupils also proposed exercises about authentic business scenarios. Students might be able to be assisted with tasks that require them to become active learners in situations where they practice using management accounting information to solve real-life problems. Students may be able to go beyond memorising the definitions to gain a greater understanding of how accounting information can be used for decisions relating to cost, quality, customer satisfaction and business value.

A few pupils made some remarks about the structure and delivery of lessons. Students may need more specific learning support with new and general concepts, such as suggestions for providing short summaries and emphasizing key points. The value creation can be financial and non-financial, so a structured summary and guided explanation may assist students in organizing their learning.

The responses to RQ3 indicated that overall, students found the approach to teaching satisfactory and preferred a more application-oriented and structured approach. Their suggestions include utilizing real-life examples, business exercises, more easily understood explanations, and summaries.

Overall, it can be demonstrated that students have been exposed to the concept of value creation in management accounting at an early and developing level. Most of their definitions had to do with profit, cost, benefits and resource use. This suggests that students were first introduced to the idea of creating value from a financial perspective. Some students were more aware and added customers, stakeholders, sustainability and non-financial value.

Students also recognized that management accounting is a type of information for decision-making. People usually relate it to pricing, cost analysis, profitability, the make-or-buy decision, and cost reduction. But the answers indicate that there is still a need for more teaching assistance in this area with regard to integrating financial and non-financial information.

Lastly, the recommendations of the students on the improvement of teaching show a preference for learning through examples and practice. Real business examples, exercises, summaries, slower pacing, and clearer explanations may help students move from basic conceptual understanding to stronger applied understanding.

Table 6: Overall Interpretation of Findings

Area of Finding	Main Interpretation
Definition of value creation	Students mostly understood value creation in terms of profit, cost, benefit, and resources.
Broader understanding	Some students connected value creation to customers, stakeholders, sustainability, and non-financial outcomes.
Role of management accounting	Students viewed management accounting as a tool for cost control, pricing, profitability, and decision-making.
Application of management accounting	Students showed emerging ability to apply management accounting to cost reduction, quality, and customer satisfaction.
Teaching improvement	Students preferred real-world examples, exercises, summaries, clearer explanations, and slower pacing.
Overall conclusion	Students' understanding was financially grounded but gradually expanding toward broader value creation.

Taken together, the results indicate that students already see management accounting both as a cost and profit tool and also as a tool of information for supporting decision-making and creating value for the business more broadly for management. Though their understanding is still in its infancy, the answers do indicate that they

are shifting from the basic financial concepts towards the more applied and multi-faceted notion of value creation.

5. Conclusions

This study aims to investigate students' initial understandings of value creation in management accounting using a qualitative approach in the classroom. The results of this study indicate that students knew the concept of value creation in terms of profit, cost, benefit and resource efficiency after the introductory class based on their written responses. This suggests that they knew the subject primarily in financial terms. Some students, however, exhibited a more holistic perspective, connecting value creation to customers, stakeholders, product quality, sustainability and business performance over time. It indicates that the students' attitude was shifting from a narrow financial perspective to a broad perspective of value creation in management accounting.

The results also revealed that students considered management accounting information as important for managerial decision making. A large number of students related management accounting to cost analysis, pricing decisions, profitability analysis, cost reduction and make-or-buy decisions. Some students could also correlate information in management accounting with customer satisfaction, improvement of quality and business performance. This meant that students were starting to realise that management accounting was not just about calculation, but also that it was important to assist managers in decision-making that would generate value to the organisation.

On the aspect of teaching style, students generally accepted the class session; some of them suggested the teaching style could be improved by making the teaching more practical and application-based. Pupils wanted more real-life examples, business-based work, more explanation, summarisation and an easier pace on harder work. The results indicate that students can be improved by teaching methods that are aimed at making accounting concepts applicable to management in real business situations. These can be ways to help students shift from conceptual to applied understanding.

To conclude, this research reveals that students' awareness of value creation in management accounting is still in the initial stage and is progressing. They appear to be able to explain the basic financial sense behind value creation and understand the importance of management accounting in decision-making. Yet, there is a need for them to receive further assistance in linking financial and non-financial information, in using management accounting concepts in business situations and in seeing value creation as a wider managerial activity. Based on this, the study emphasizes the importance of reflective, practical and example-based teaching methods in the study of management accounting.

The present study has been conducted with a single class group and a single lesson in the initial introduction. Hence, the results cannot be generalized to all students of management accounting. The study also concentrated on the early learning understanding of students after the first class, not on the long-term learning development. There were also some limitations in the written responses, namely in terms of length and detail. Some students answered with entire explanations and some students gave short answers.

However, the study offers some useful lessons for the classroom on how students first start to think about value creation in management accounting, despite these restrictions. The outcomes can be used by lecturers to pinpoint the baseline understanding students have achieved and any support, examples or applied exercises that might be required.

There is potential to expand this study with the collection of data throughout the course for several weeks to analyze the students' understanding of value creation throughout the course. A future study might contrast students' reactions prior to and after particular learning activities, like case studies, group discussions, problem-based learning or real-life business simulations. Future research may also consider other than one class group or other accounting classes for comparisons as to whether similar patterns of understanding occur in other learning situations. Further research could also utilize focus group discussions and/or interviews in conjunction with students' written reflections to shed light on what they understand by value creation, how

they relate financial and non-financial information, and what pedagogical approaches would prove effective for students' learning in the field of management accounting.

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The Export-Led and Import-Led Growth Hypothesis Test in Malaysia, Indonesia and Singapore

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Abstract: There are various discussions on the hypothesis of export-led growth, but due to different methods, the results are controversial. Nonetheless, this research aims to examine the short-run and long-run relationships between exports, imports, services, and economic growth of Malaysia, Indonesia and Singapore in the time range from January 2010 to December 2021. The dynamic analysis approach utilized in this study is the Vector Error Correction Model (VECM) to investigate whether Malaysia, Indonesia and Singapore are export-led growth (ELGH) or import-led growth hypothesis (ILGH) during the selected period. The findings indicate that, in addition to imports and economic growth, both countries show that there is a bilateral relationship between exports and economic growth in the short-run and long run. Thus, international trade is the engine of rapid growth, where the hypothesis of export-oriented growth and the hypothesis of import-oriented growth are reasonable. Therefore, the policymakers should ease the trade barrier to encourage trade liberalization and foreign investment, besides controlling the trade services.

Keywords: *Gross Domestic Product (GDP), Export-led growth hypothesis (ELGH), import-led growth hypothesis (ILGH), Vector Error Correction Model (VECM)*

1. Introduction

Economic growth is defined as the expansion of a nation's economy over a specified amount of time. Economic growth is measured by the term Gross Domestic Product (GDP), and it refers to the entire amount of goods and services that are produced within an economy and is the standard method for determining the size of an economy. The rate of economic expansion can be evaluated either in nominal or real terms, which is divided by the Consumer Price Index (CPI). The rise in the dollar worth of production over a period is what economists mean when they talk about nominal economic growth. Therefore, this encompasses shifts not just in the quantity of products and services produced, but also in the prices of those goods and services. Whenever economists discuss growth in the economy, they typically refer to "real" economic growth, which refers to increases in the volume produced alone and eliminates the impact of fluctuating prices. This is due to the fact that, when compared to other moments in time, it more accurately depicts how much production a country is capable of at any one moment.

Moreover, economic growth is crucial because it aids in the alleviation of poverty. When the experiences of a wide variety of developing nations are compared, researchers constantly find compelling evidence that rapid and sustained economic expansion is the single most essential approach to eliminating global poverty. According to a common estimate derived from this international research, a rise of 10 percentage points in a nation's median income will result in a decrease of between 20 and 30 percentage points in the country's poverty rate. Other than that, economic growth is the primary driver of job creation. Growth in the economy creates work opportunities, which results in an increased demand for labor, which is the primary and frequently the only asset that the poor own.

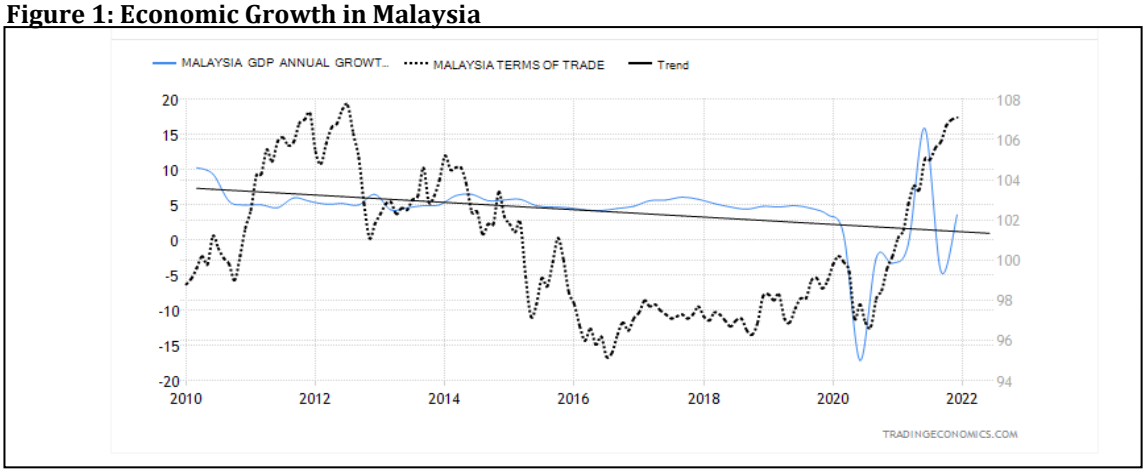
The government in Malaysia plays a very essential part in the overall effort to raise the value of GDP. The power of the economy can be increased by the implementation of certain policies by the government (Hussain et al., 2019). When a nation has a larger value of GDP, it is able to entice a greater number of investors to invest their money in that nation rather than in ours (Mayorova, 2019). To put it another way, the amount of capital that enters a country is directly correlated to its level of economic development. Therefore, the government should work to increase exports, cut the amount of goods it imports, invest in the growth of its human capital and take other steps that would be beneficial to the economy. The value of a country's gross domestic product will be affected regardless of whether the country uses a fixed exchange rate regime or a flexible exchange rate regime. However, the expansion of a nation's economy is driven not only by increases in its stock of capital goods and

its labor force, but also by its trade, which includes both exports and imports as well as investment, financing, which is money supply M3, and the provision of services. All of these are important contributors to economic growth.

Based on the preceding section regarding the dependence of economic growth on exports and the argument of the positive or negative influence that investment has on economic growth. Aside from that, it is unclear which elements exerted a significant amount of effect on the expansion of the economy and whether or not the relationship between exports, imports, trade services and economic growth is positive or negative and whether or not it is short-run or long-term. For the next example, this is a summary of the problems associated with the variables that are of interest to investigate.

Trade and Economic Growth in Malaysia

Figure 1: Economic Growth in Malaysia



Based on the percentage of the GDP Annual Growth that comes from exports and imports, Figure 1 depicts the time period ranging from January 2010 to December 2021. Malaysia has an open economy and has a wealth of resources, all of which contribute to the country's rapid economic growth and development. In the 2010s, there was very little correlation between imports and exports, which indicates that both contribute to economic growth as measured by the Annual Growth. According to the findings of Noor and Rambeli (2018), there is a short-term causation association between imports and GDP, while exports have a positive effect on economic growth.

Trade and Economic Growth in Indonesia

Figure 2: Economic Growth in Indonesia

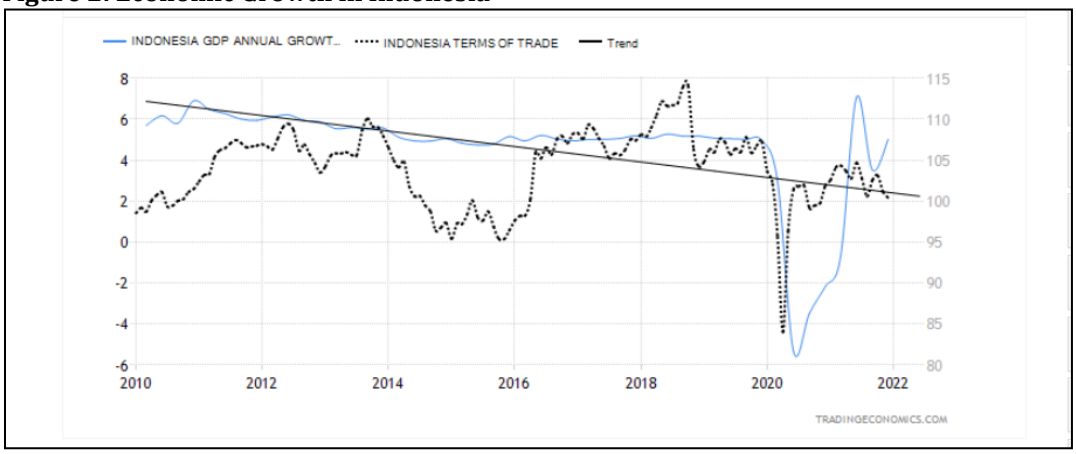
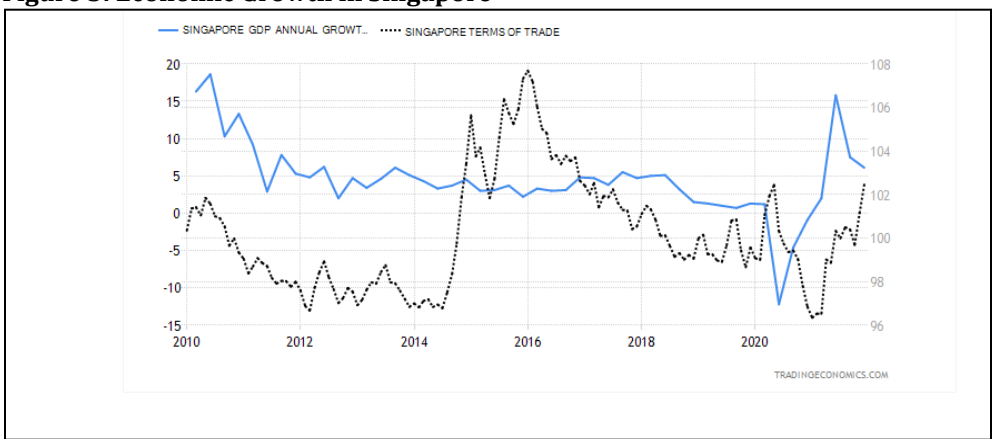


Figure 2 illustrates the percentage of GDP Annual Growth of Indonesia attributable to exports and imports for the period spanning January 2010 to December 2021. The Indonesian economy is the largest in Southeast Asia and the sixteenth largest in the world, with a GDP of around USD940.9 billion every year (2016). In 2014, the services industry was the largest employer in Indonesia, employing 45 percent of the population (compared to only a third in 1990). This is followed by the agriculture sector, which employs 34% of local workers (down from 56% in 1990), and the industry sector, which employs 21% of local workers (including manufacturing) (having become more prominent in recent years). Significant economic differences exist between Indonesia and its Asian neighbors, such as Singapore and Thailand. In particular, Indonesia's economy is mostly dominated by local activity as opposed to exports, which served to cushion it during the 2008 to 2009 global financial crisis.

Trade and Economic Growth in Singapore

Figure 3: Economic Growth in Singapore

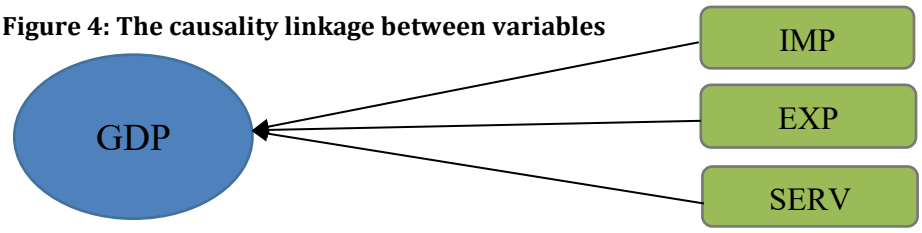


Malaysia is Singapore's closest neighboring country, yet their development paths have not always coincided. Despite having fewer natural resources than Malaysia, Singapore is a highly developed free-market economy with exceptional economic success. After gaining independence from Malaya in 1965, Singapore became self-sufficient, with imports exceeding exports for the purpose of importing intermediate items for domestic manufacturing. Thangavelu and Rajaguru (2004) found that imports have a large causal effect on productivity growth. Figure 3 depicts the trade and GDP Annual Growth in Singapore from January 2010 to December 2021. Exports and imports are significant to GDP. Singapore's emphasis on economic growth transformed it from an underdeveloped nation to one of the nations with the quickest industrialization, bolstering the confidence of international investors. The ELGH is supported for Singapore based on the empirical findings of Tan et al. (2007), which indicate that Singapore's financial depth led to economic growth from 1968 to 1997.

Conceptual Framework

The monthly data on imports, exports, trade services and economic growth of Malaysia, Indonesia and Singapore are the focus of this study's primary investigation question. The conceptual framework for this research, which includes the causality linkage between variables such as Gross Domestic Product (GDP), imports (IMP), exports (EXP) and services (SERV), as well as the foundation for the methodology of this study

Figure 4: The causality linkage between variables



According to Figure 4, the GDP is the dependent variable, whereas EXP, IMP and SERV are independent variables. This distinction may be seen by looking at the graph. In the range of 2010 to 2021, it displays the

monthly GDP, which represents the month-on-month national output of the country (Malaysia, Indonesia and Singapore). At the same time, the independent factors have a particularly powerful impact on the rate of economic growth. The direction of the arrows makes it abundantly clear that there is a correlation between the variables. This correlation is supported by the findings of previous research, specifically export-led growth (Kalaitzi & Cleeve, 2017; Rani & Kumar, 2018), growth-led export (Tuffour, 2010), import-led growth (Mohd Noor & Rambeli, 2018; Bakari, 2018), and growth-led import (Ebrahimi, 2017) from the various analytical approaches such as VECM.

Theoretical Framework

The Gross Domestic Product (GDP) or economic growth is an essential indicator since it provides data on the size of the economy as well as the performance of the economy. The pace of expansion of the real gross domestic product is frequently used as a measure of the state of the economy as a whole. An increase in real GDP is generally seen as evidence that the economy is performing well and should be regarded in these terms. Employment is likely to be expanding when real GDP is growing substantially. This is because corporations hire more workers for their factories and individuals have more money in their pockets when real GDP is growing. When the Gross Domestic Product (GDP) falls, as it did in many nations during the most recent global economic crisis, employment typically falls as well.

The idea that expanded trade liberalization in today's modern and globalized world will boost economic growth is one that has frequently been used to support the relationship between increased trade and improved economic growth. The purpose of this study is to investigate the most fundamental relationship that exists between the quantity of a nation's trade activity, which is a subset of globalization and an indicator of trade liberalization and the factors that influence productivity in terms of how they affect economic growth.

2. Review of Literature

The Relationship between Imports and Economic Growth

Imports are generally defined as goods and services purchased from foreign economies for domestic consumption, production, or investment purposes (Sukirno, 2006). From the perspective of the Heckscher–Ohlin Theory, international trade enables countries to obtain products that can be produced more efficiently abroad, allowing resources to be allocated more effectively and enhancing economic welfare. Imam (2013) further describes imports as the consumption of commodities originating from foreign countries by domestic economic agents.

Despite the benefits associated with international trade, several studies have highlighted the potential adverse effects of excessive import dependence on economic performance. Saputra (2015) argued that a high volume of imports may contribute to lower gross domestic product (GDP), suggesting the existence of a negative relationship between imports and economic growth. Similar findings were reported by Turay (2019), whose investigation of export–import dynamics revealed that exports positively influenced economic growth, whereas imports exerted a negative effect on economic performance. These findings imply that although imports may satisfy domestic demand, excessive reliance on imported products can weaken domestic production activities.

Evidence from previous empirical studies also supports the existence of a negative association between imports and economic growth. Using an Error Correction Model (ECM), Sulaiman and Saad (2009) found that imports negatively affected Malaysia's economic growth. Comparable results were obtained by Bakari and Krit (2017) in Mauritania, where imports were shown to hinder long-term economic expansion. Likewise, Kumar et al. (2020), employing panel ARDL and ECM techniques to analyze Bangladesh, India, Pakistan and Sri Lanka between 1991 and 2017, reported that imports reduced GDP growth across South Asian economies.

Although many studies have identified adverse effects of imports on economic growth, the nature of the relationship may vary across countries and periods. For instance, Moyo and Mapfumo (2015) demonstrated a unidirectional causal relationship running from imports to economic growth in Zimbabwe using Granger causality analysis. Meanwhile, Pedroni's cointegration approach provided evidence of a long-run relationship

between imports and economic growth, suggesting that imports remain an important determinant of economic performance despite their generally negative contribution.

Various econometric approaches have been employed to investigate the impact of trade activities on economic growth. Awokuse (2008) applied Granger causality and impulse response analyses to evaluate the relationship between trade expansion and economic performance, while Shandre et al (2006) utilized a Vector Error Correction Model (VECM) to examine the experiences of nine major Asian economies. Collectively, these studies indicate that imports constitute an important component of international trade, although their influence on economic growth depends largely on the structure and competitiveness of the domestic economy.

The Relationship between Exports and Economic Growth

The export-led growth hypothesis (ELGH) posits that export expansion serves as a primary engine of economic growth by stimulating production, employment, investment and technological advancement (Mediana-Smith, 2001). Under this framework, increased participation in international markets is expected to improve economic performance by enlarging market opportunities and enhancing resource utilization.

A substantial body of empirical evidence supports the proposition that exports contribute positively to economic growth. In Nigeria, Chimobi et al. (2010) examined the relationship between exports, domestic demand, and economic growth through cointegration and Granger causality analyses. Their findings indicated that economic growth plays an important role in influencing both exports and domestic demand. Similarly, Tsen (2007) investigated several Middle Eastern countries, including Bahrain, Iran, Oman, Qatar, Saudi Arabia, Syria and Jordan and reported that economic growth was closely linked to exports, domestic consumption and investment activities.

Research conducted in Malaysia has also provided support for the export-led growth hypothesis. Choong et al. (2003), using a two-stage least squares estimation technique, found that exports exerted a positive influence on economic growth in both the short run and the long run. Subsequently, Choong et al. (2005) employed the bounds testing approach proposed by Pesaran et al. (2001) and confirmed the existence of a cointegrated relationship between exports and GDP, further validating the ELGH in the Malaysian context.

Additional evidence from other countries reinforces the importance of exports as a driver of economic performance. Rangasamy (2008), focusing on South Africa, identified a unidirectional Granger causality running from exports to economic growth. Likewise, Ullah et al. (2009) re-examined the ELGH in Pakistan using time-series data from 1970 to 2008 and concluded that export expansion contributed significantly to economic development. In Libya, Elbeydi et al. (2010) documented a long-run bidirectional relationship between exports and economic growth, suggesting that export promotion strategies can enhance national income and economic development.

However, not all empirical studies have produced consistent findings. Pazim (2009), employing panel data analysis across three countries, found no evidence of a long-run cointegration relationship between exports and economic growth despite identifying non-stationary behavior in GDP and export series. Similarly, Albiman & Suleiman (2016) reported that exports, imports, domestic investment and economic growth in Malaysia were not cointegrated in the long run. Nevertheless, their findings indicated that exports remained an important determinant of economic growth in the short run.

Overall, the existing literature generally supports the view that export expansion contributes positively to economic growth, although the strength and direction of the relationship may differ according to economic structure, institutional conditions and methodological approaches.

The Relationship between Services and Economic Growth

The services sector has become increasingly important in contemporary economies due to its contribution to trade, productivity and income generation. According to the World Bank (2022), net services are measured as the difference between exports and imports of services. As economies become more integrated through globalization, service-related activities play a vital role in facilitating economic transactions and supporting overall development.

Theoretical explanations linking services and economic growth are largely rooted in international trade and growth theories. Grossman and Helpman (2015) argued that globalization promotes economic growth through several channels. First, international interactions facilitate the transfer of knowledge and innovation, allowing countries to improve products, production methods and technological capabilities. Second, larger international markets provide greater opportunities for firms to commercialize innovations and generate returns from productive activities. Third, global market integration influences the allocation of resources through changes in input and output prices, thereby affecting overall economic performance.

The World Bank (2018) emphasized that international trade in services contributes significantly to poverty reduction and economic prosperity. Countries that participate actively in global trade tend to experience higher productivity growth, increased innovation, improved employment opportunities and greater income levels. These arguments are consistent with traditional international trade theories, which suggest that trade promotes specialization, efficiency and optimal resource allocation (Zahonogo, 2016).

The positive contribution of international trade to economic growth is also reflected in the classical theories developed by Ricardo as well as Heckscher-Ohlin (Leamer & Levinsohn, 1995). These theories propose that countries benefit by specializing in activities where they possess comparative advantages while importing products and services that can be produced more efficiently elsewhere. Consequently, international economic interactions have become an essential feature of modern economic systems.

The relationship between trade openness and economic growth can also be explained through the neoclassical growth framework derived from Solow's (1957) model. This perspective suggests that trade openness may influence long-run economic growth if it facilitates technological progress and productivity improvements. However, empirical evidence regarding the trade-growth nexus remains inconclusive, with findings often varying according to the sample period, econometric methodology, and country characteristics examined.

Several empirical studies have highlighted the heterogeneous nature of this relationship. Kim and Lin (2009), together with Kim et al. (2011), identified threshold effects in which trade openness contributes positively to economic growth only after a certain level of income has been achieved. Similarly, Sakyi et al. (2011) and Herzer (2013) observed that the growth-enhancing effects of trade tend to be stronger in higher-income economies. These findings suggest that the benefits derived from trade and services may depend on a country's stage of development.

Using advanced estimation techniques such as Dynamic Ordinary Least Squares (DOLS) and the Generalized Method of Moments (GMM), Gries and Redlin (2020) found evidence supporting a positive long-run relationship between trade globalization and economic growth. Nevertheless, their results also demonstrated that the relationship is nonlinear and varies across countries with different levels of openness and economic development. Therefore, while the services sector and international trade generally contribute to economic growth, their effects may differ depending on economic conditions and institutional capacities.

3. Methodology

The Vector Error Correction Model (VECM) will be utilized in this investigation into the connection that exists between the gross domestic product (GDP), import (IMP), export (EXP) and services (SERV) in three countries, which are Malaysia, Indonesia and Singapore. The discussion in this chapter is divided into several parts, which include data, model specification, and empirical methods. Initially, the time series of data is put through the unit root test in order to determine whether or not the first difference is stationary across all variables. Next, the Augmented Dickey-Fuller (ADF) test is carried out in order to determine whether or not the unit root exists. The time series data will also be used to estimate the Vector Autoregression (VAR) model in order to choose the optimal lag within the constraints of the lag length requirement. Subsequently, the Johansen (1988) cointegration test is employed to examine the existence of a long-run equilibrium relationship among variables integrated of order one, I(1). Once the cointegration relationship has been established, further analyses are conducted using the Error Correction Term (ECT), Error Correction Model (ECM), and Wald tests within the Vector Error Correction Model (VECM) framework to evaluate both the short-run dynamics and long-run causal relationships among the variables.

Data Collection
Data on Malaysia, Indonesia and Singapore's Gross Domestic Products (GDP), imports, exports and services over a monthly time frame were compiled for the purposes of analysis using a variety of government sources, including CEIC Data and Trading Economics among others. The currency exchange rates for the Malaysian ringgit, Indonesian rupiah, and Singaporean dollar are RM/USD, IDR/USD, and SGD/USD, respectively. The consumer price index (CPI) is also collected from the resources and it is used to deflate the data from the nominal form into the real form. The main purpose is to measure the real terms after inflation has been adjusted for. All of the variables have been transformed into logarithms so that they can be standardized after the CPI was applied to the data.

Model Specification
This study aims to examine Malaysia, Indonesia and Singapore to determine whether their hypothesis are Import-led Growth, Growth-led Import, Export-led Growth, Growth-led Export, Services-led Growth and Growth-led Services in the range from January 2010 to December 2021. The model is based on the international trade theory, where trade (exports and imports) contributes to rapid growth. Moreover, the model is inspired by the model of Fannoun and Hassouneh (2019) to identify the causal relationship between imports (IMP), exports (EXP), services (SERV) and economic growth (GDP). The model specification of Malaysia is as follows:

$$GDP_t = \beta_0 + \beta_1 IMP_t + \beta_2 EXP_t + \varepsilon_t \qquad (1)$$

In addition, a number of academics asserted that services play an essential role in influencing the expansion of the economy through international commerce. As a result, the model has been extended to include a monthly timeframe and incorporate real-world forms of the variables that make up Gross Domestic Product (GDP), imports and exports, as well as services. The model is outlined in the following way:

$$GDP_t = \beta_0 + \beta_1 IMP_t + \beta_2 EXP_t + \beta_3 SERV_t + \varepsilon_t \qquad (2)$$

Where,
GDP_t= Gross Domestic Product for year t
IMP= Real imports for year t
EXP= Real exports for year t
SERV= Real services for year t
β_0 = Coefficient for the determination variables
$\beta_1, \beta_2, \beta_3$ = Parameter
t= Period from 2010 to 2021
ε = Error term

Unit Root Test
The unit root test plays an extremely important role in determining the degree to which each variable is integrated. In theory, the Augmented Dicky-Fuller (ADF) test that was developed by Dickey and Fuller (1979) and the PP test that was developed by Phillips and Perron (1981) are two different tests (1988).

Vector Autoregression (VAR)
The statistical model known as vector autoregression (VAR) is used to investigate the nature of the connection that exists between the variables. It was most commonly used for modelling multivariate time series because of the fact that a variable is not only influenced by its own previous time but also associated with the previous times of other variables. Thus, the Johansen Juselius Cointegration test will make use of this test to predict the lag length of the test.

Johansen Juselius Cointegration Test (JJ)
After the selection of optimal lag according to AIC, the Johansen Juselius Cointegration test is performed to verify the presence of a long-run association between the variables (Johansen, 1995). Johansen and Juselius (1990) commenced the Johansen Juselius Cointegration test and also analyzed whether there is a cointegration

between the variables since there are more variables in the model. Gonzalo (1994) argued that the Johansen–Juselius (JJ) cointegration test provides more reliable estimators than the two-step Engle–Granger cointegration approach developed by Engle and Granger (1987). This is because the JJ test incorporates unit root properties, accommodates multivariate systems and captures the dynamic structure of cointegrating relationships, thereby producing more robust and efficient estimates (Gonzalo, 1994).

Error Correction Term (ECT)

When verifying a cause-and-effect relationship across time, an error correction term (ECT) is applied. In reality, the presence of ECT indicates that the cointegration connection between time series is not perfectly balanced (Engle & Granger, 1987). What this means is that it provides a rough estimate of how quickly the dependent variables will respond to the new conditions imposed by the variation in the independent variables (Enders, 1995). In theory, if certain factors are ignored in ECT, the resulting specification and results will be off (Engle & Granger, 1987). According to Engle and Granger (1987), a VECM should be used to investigate both the short- and long-run relationship between variables if all variables are found to be cointegrated and stationary in the first difference.

Error Correction Model (ECM)

The error correction model (ECM) belongs to the class of multivariate models that are utilized the most frequently in practice for the purpose of locating instances of short-run cointegration. The ECM can be used well for estimating both short-term and long-term associations, at least in theory. The existence of the ECM can be inferred from the presence of a correlation between two or more variables. To be more precise, the significance in the model indicated that the model has a high degree of robustness. Estimation of the ECM is often carried out after the ECT has been determined and the processes that need to be carried out in the ECM are divided into two categories: before and after treatment. A step called the step needs to remove the probability that exceeds the 0.5 value in the least square estimation, which comes before the step called the parsimonious step. The following is a breakdown of the monthly estimates for the general model from 2010 through 2021:

Malaysia

$$lnMSIAGDP_t = \alpha_0 + \alpha_1 lnMSIAIMP_t + lnMSIAEXP_t + lnMSIASERV_t$$

Indonesia

$$lnINDGDP_t = \alpha_0 + \alpha_1 lnINDIMP_t + lnMSIAEXP_t + lnINDSERV_t$$

Singapore

$$lnSGGDP_t = \alpha_0 + \alpha_1 lnSGIMP_t + lnSGEXP_t + lnSGSERV_t$$

For the Error Correction Model of variables with the number of systems for Malaysia, Indonesia and Singapore: One cointegrating relation

Malaysia

$$\Delta MSIAGDP_t = \eta_1 + \sum_{i=t}^{MSIAGDP} \alpha_i \Delta msiagdp_{t-i} + \sum_{i=t}^{MSIAIMP} \beta_i \Delta msiaimp_{t-i} + \sum_{i=t}^{MSIAEXP} \gamma_i \Delta msia\exp_{t-i} + \sum_{i=t}^{MSIASERV} \delta_i \Delta msiaserv_{t-i} + \delta ECT_{t-1} + \Omega_{1t}$$

$$\Delta MSIAIMP_t = \eta_2 + \sum_{i=t}^{MSIAGDP} \alpha_i \Delta msiagdp_{t-i} + \sum_{i=t}^{MSIAIMP} \beta_i \Delta msiaimp_{t-i} + \sum_{i=t}^{MSIAEXP} \gamma_i \Delta msia\exp_{t-i} + \sum_{i=t}^{MSIASERV} \delta_i \Delta msiaserv_{t-i} + \delta ECT_{t-1} + \Omega_{1t}$$

$$\Delta MSIAEXP_t = \eta_3 + \sum_{i=t}^{MSIAGDP} \alpha_i \Delta msiagdp_{t-i} + \sum_{i=t}^{MSIAIMP} \beta_i \Delta msiaimp_{t-i} + \sum_{i=t}^{MSIAEXP} \gamma_i \Delta msia\exp_{t-i} + \sum_{i=t}^{MSIASERV} \delta_i \Delta msiaserv_{t-i} + \delta ECT_{t-1} + \Omega_{1t}$$

$$\Delta MSIASERV_t = \eta_4 + \sum_{i=t}^{MSIAGDP} \alpha_i \Delta msiagdp_{t-i} + \sum_{i=t}^{MSIAIMP} \beta_i \Delta msiaimp_{t-i} + \sum_{i=t}^{MSIAEXP} \gamma_i \Delta msia\exp_{t-i} + \sum_{i=t}^{MSIASERV} \delta_i \Delta msiaserv_{t-i} + \delta ECT_{t-1} + \Omega_{1t}$$

Indonesia

$$\Delta IDNIMP_t = \eta_2 + \sum_{i=t}^{IDNGDP} \alpha_i \Delta indgdp_{t-i} + \sum_{i=t}^{IDNIMP} \beta_i \Delta idnimp_{t-i} + \sum_{i=t}^{IDNEXP} \gamma_i \Delta idn\exp + \sum_{i=t}^{IDNSERV} \delta_i \Delta idnserv_{t-i} + \delta ECT_{t-1} + \Omega_{1t}$$

$$\Delta IDNGDP_t = \eta_1 + \sum_{i=t}^{IDNGDP} \alpha_i \Delta indgdp_{t-i} + \sum_{i=t}^{IDNIMP} \beta_i \Delta idnimp_{t-i} + \sum_{i=t}^{IDNEXP} \gamma_i \Delta idn\exp + \sum_{i=t}^{IDNSERV} \delta_i \Delta idnserv_{t-i} + \delta ECT_{t-1} + \Omega_{1t}$$

$$\Delta IDNEXP_t = \eta_3 + \sum_{i=t}^{IDNGDP} \alpha_i \Delta indgdp_{t-i} + \sum_{i=t}^{IDNIMP} \beta_i \Delta idnimp_{t-i} + \sum_{i=t}^{IDNEXP} \gamma_i \Delta idn\exp + \sum_{i=t}^{IDNSERV} \delta_i \Delta idnserv_{t-i} + \delta ECT_{t-1} + \Omega_{1t}$$

$$\Delta IDNSERV_t = \eta_4 + \sum_{i=t}^{IDNGDP} \alpha_i \Delta indgdp_{t-i} + \sum_{i=t}^{IDNIMP} \beta_i \Delta idnimp_{t-i} + \sum_{i=t}^{IDNEXP} \gamma_i \Delta idn\exp + \sum_{i=t}^{IDNSERV} \delta_i \Delta idnserv_{t-i} + \delta ECT_{t-1} + \Omega_{1t}$$

Singapore

$$\Delta SGGDP_t = \eta_1 + \sum_{i=t}^{SGGDP} \alpha_i \Delta sggdp_{t-i} + \sum_{i=t}^{SGIMP} \beta_i \Delta sgimp_{t-i} + \sum_{i=t}^{SGEXP} \gamma_i \Delta sg\exp + \sum_{i=t}^{SGSERV} \delta_i \Delta sgserv_{t-i} + \delta ECT_{t-1} + \Omega_{1t}$$

$$\Delta SGIMP_t = \eta_2 + \sum_{i=t}^{SGGDP} \alpha_i \Delta sggdp_{t-i} + \sum_{i=t}^{SGIMP} \beta_i \Delta sgimp_{t-i} + \sum_{i=t}^{SGEXP} \gamma_i \Delta sg\exp + \sum_{i=t}^{SGSERV} \delta_i \Delta sgserv_{t-i} + \delta ECT_{t-1} + \Omega_{1t}$$

$$\Delta SGEXP_t = \eta_3 + \sum_{i=t}^{SGGDP} \alpha_i \Delta sggdp_{t-i} + \sum_{i=t}^{SGIMP} \beta_i \Delta sgimp_{t-i} + \sum_{i=t}^{SGEXP} \gamma_i \Delta sg\exp + \sum_{i=t}^{SGSERV} \delta_i \Delta sgserv_{t-i} + \delta ECT_{t-1} + \Omega_{1t}$$

$$\Delta SGSERV_t = \eta_4 + \sum_{i=t}^{SGGDP} \alpha_i \Delta sggdp_{t-i} + \sum_{i=t}^{SGIMP} \beta_i \Delta sgimp_{t-i} + \sum_{i=t}^{SGEXP} \gamma_i \Delta sg\exp + \sum_{i=t}^{SGSERV} \delta_i \Delta sgserv_{t-i} + \delta ECT_{t-1} + \Omega_{1t}$$

Granger Causality (Wald test) in Vector Error Correction Model (VECM)

The precise idea of causation that pertains to time series analysis is referred to by the phrase Granger causality. To put it another way, if the historical data that includes both X and Y can make more accurate projections than the historical data that includes only Y, then the variable X demonstrates Granger causality to the variable Y. (Granger, 1969). If both the X and Y variables are stationary at the first-difference level, as in cointegration at the integration level, then the model ought to include a period of error correction before carrying out the Wald test. This is because the cointegration in the integration level is an example of this. The ECT is the disequilibrium function in the cointegration association, as stated by Engle and Granger (1987). This function displays the movement of the dependent variable in addition to the movement of the other independent variables.

4. Empirical Results

Unit Root Test

Malaysia

The Augmented Dickey–Fuller (ADF) test was conducted at both the level and first-difference forms to determine the stationarity properties of the variables in Malaysia. The significance of the p-values was evaluated based on the critical values and probability estimates developed by MacKinnon (1996), which were used to determine whether the null hypothesis of a unit root should be accepted or rejected. The results report that the Gross Domestic Product (GDP), exports (EXP), imports (IMP), and services (SERV) are non-stationary at the level form which accepted the null hypothesis of the unit root test because the t-statistic of each variable is greater than the critical value. For instance, the data series of GDP for Malaysia shows the value of the ADF test statistic at the level form is greater than the critical value, -2.068473, which is greater than the critical value of -3.480038 for a trend without trend at lag length 12. At the level with the trend, the GDP value of -2.063702 is also greater than the -4.028496 of the critical value. While for none, the GDP value of 0.792378 is greater than the critical value of -2.581951 as well. According to the significance level in level form, the three types of unit root test for level form, such as without trend, with trend and none of the GDP data series were not significant at values of 0.2578, 0.5608, 0.8828, respectively, at the uniform lag length, 12.

At the same time, the first difference of each variable successfully rejected the null hypothesis and was statistically significant at the 95% and 99% significance levels. For instance, the first different probability value of GDP data series without trend, with trend and zero mean are all significant at 99% under a uniform lag length

of 12. In addition, the GDP of Malaysia at the first difference in the value of -6.049096 is smaller than the critical value -3.478547 without trend. With the trend, the t-statistic of -6.017841 is less than -4.026429 at 1% of the critical value. The ADF t-value for each variable is less than 5% and 1% of the critical value, hence the time series data are stationary at the first difference. For example, at first, the differences in the data series of exports (EXP) and imports (IMP), the t-statistics with trend are -11.51210 (EXP) and -12.59244 (IMP), respectively, less than 5% critical value for -3.442006.

Indonesia

The results of the ADF test, including the level form and the first difference in Malaysia. The significance of the p-value is obtained from MacKinnon (1996) to examine the probability of the series, whether to accept or reject the null hypothesis. The results report that the Gross Domestic Product (GDP), exports (EXP), imports (IMP), and services (SERV) are non-stationary at the level form, which accepted the null hypothesis of the unit root test because the t-statistic of each variable is greater than the critical value. For instance, the data series of GDP for Indonesia shows the value of the ADF test statistic at the level form is greater than the critical value,-1.950906, which is greater than the critical value of 3.480038 for a trend without trend at lag length 12. At the level with the trend, the GDP value of -1.704884 is also greater than the -4.028496 of the critical value. While for none, the GDP value of -0.094613 is greater than the critical value of -2.582465 as well. According to the significance level in level form, the three types of unit root test for level form, such as without trend, with trend, and none of the GDP data series, were not significant at values of 0.3083, 0.7439, and 0.6493, respectively, at the uniform lag length, 12. At the same time, the first difference of each variable successfully rejected the null hypothesis and was statistically significant at the 95% and 99% significance levels. For instance, the first different probability value of GDP data series without trend, with trend and zero mean are all significant at 99% under a uniform lag length of 12. In addition, the GDP of Indonesia at the first difference in the value of -3.045919 is smaller than -2.883239, the critical value without trend. With the trend, the t-statistic of -3.132094 is less than -3.028496 at 1% of the critical value. The ADF t-value for each variable is less than 5% and 1% of the critical value, hence the time series data are stationary at the first difference. For example, at first, the difference in the data series of exports (EXP), the t-statistic with trend is -6.197942 (EXP), less than 5% critical value for -2.883753.

Singapore

The results of the ADF test, including the level form and the first difference, in Singapore. The significance of the p-value is obtained from MacKinnon (1996) to examine the probability of the series, whether to accept or reject the null hypothesis. The results report that the Gross Domestic Product (GDP), exports (EXP), imports (IMP), and services (SERV) are non-stationary at the level form, which rejected the null hypothesis of the unit root test because the t-statistic of each variable is less than the critical value. For instance, the data series of GDP for Singapore shows the value of the ADF test statistic at the level form is greater than the critical value -24.63075, which is less than the critical value of -3.477487 for a trend without trend at lag length 12. At the level with the trend, the GDP value of 5.805226 is also less than the -4.023975 of the critical value. While for none, the GDP value of 2.445140 is greater than the critical value of -2.581584 as well. According to the significance level in level form, the three types of unit root test for level form, such as without trend, with trend, and none of the GDP data series, were not significant at values of 0.0000, 0.0000, 0.9966, respectively, at the uniform lag length, 12.

At the same time, the first difference of each variable successfully rejected the null hypothesis and was statistically significant at the 95% and 99% significance levels. For instance, the first different probability value of GDP data series without trend, with trend and zero mean are all significant at 99% under a uniform lag length of 12. In addition, the GDP of Singapore at the first difference in the value of -19.47733 is smaller than the critical value -3.477487 without trend. With the trend, the t-statistic of -20.59417 is less than -4.024935 at 1% of critical value. The ADF t-value for each variable is less than 5% and 1% of the critical value, hence the time series data are stationary at the first difference. For example, at first, the differences in the data series of exports (EXP) and imports (IMP), the t-statistics with trend are -7.873906 (EXP) and -6.858334 (IMP), respectively, less than 5% critical value for -3.442955 and -3.442474.

Vector Autoregression (VAR)

Malaysia
The system recommended a lag of 12 for Malaysia. The optimal lag length for Malaysia is supported by the minimum of AIC values of -51.00192*. To run the succeeding tests, the lag 12 will be -1, becoming lag 11.

Indonesia
The system recommended a lag of 12 for Indonesia. The optimal lag length is supported by the minimum of AIC values of -47.01056*. To run the succeeding tests, the lag 12 will be -1, becoming lag 11.

Singapore
The system recommended a lag of 12 for Singapore. The optimal lag length is supported by the minimum of AIC values of -36.40026*. To run the succeeding tests, the lag 12 will be -1, becoming lag 11.

Johansen Juselius Cointegration (JJ)

Malaysia
Malaysia's Trace Test and Maximum Eigen Value exceed the critical value at 5% significant level, rejecting the null hypothesis and accepting the alternative hypothesis of more than one cointegration vector. The trace statistic and eigenvalues are greater than the significant level 5% and 1%, respectively, which are 65.01833 and 40.74466. The test of the alternative hypothesis (r>1) is also accepted, where 24.27367 and 16.26930 did not exceed the critical values of 5% and 1%. So, the result specified there is one long-run relationship in Malaysia.

Indonesia
Indonesia's Trace Test and Maximum Eigen Value exceed the critical value at 5% significant level, rejecting the null hypothesis and accepting the alternative hypothesis of more than one cointegration vector. The trace statistic and eigenvalues are greater than the significant level 5% and 1%, respectively, which are 58.59030 and 32.98293. The test of the alternative hypothesis (r>1) is also rejected, where 25.60737 and 11.94822 did not exceed the critical values of 5% and 1%. So, the result specified there is one long-run relationship in Indonesia.

Singapore
Singapore's Trace Test and Maximum Eigen Value exceed the critical value at 5% significant level, rejecting the null hypothesis and accepting the alternative hypothesis of more than one cointegration vector. The trace statistic and eigenvalues are greater than the significant level 5% and 1%, respectively, which are 60.46479 and 32.25583. The test of the alternative hypothesis (r>1) is also rejected, where 28.20896 and 18.84517 did not exceed the critical values of 5% and 1%. So, the result specified there is one long-run relationship in Singapore.

Error Correction Term (ECT)

Malaysia
*ECT(-1) = 96.82335 + 1.000000*GDP(-1) + 155.2061*IMPORT(-1) + 182.9418* EXPORT(-1) - 338.3871*SERVICES(-1)*

The above cointegration equation shows that Malaysia's GDP is positively correlated with exports (EXP) and imports (IMP), while GDP is negatively correlated with services (SERV). This means that, in the long run, Malaysia's economic growth will be influenced by the services.

Indonesia
*ECT(-1) = -5.694576 + 1.000000*GDP(-1) - 4.788358*IMPORT(-1) - 2.364808* EXPORT(-1) + 7.159004*SERVICES (-1)*

The above cointegration equation shows that Indonesia's GDP is positively correlated with services (SERV), while GDP is negatively correlated with imports (IMP) and exports (EXP). This means that in the long run, the economic growth of Indonesia will be affected by the import and export.

Singapore

*ECT(-1) = 3.272492 + 1.000000*GDP(-1) - 2.732443*IMPORT(-1) + 0.420255* EXPORT(-1) + 0.337932*SERVICES (-1)*

The above cointegration equation shows that Singapore's GDP is positively correlated with exports (EXP) and services (SERV), while GDP is negatively correlated with imports (IMP). This means that in the long run, the economic growth of Singapore will be affected by the imports.

Error Correction Model (ECM)

Malaysia

GDP: For the ECM output of the Gross Domestic Product (GDP) system in Malaysia, the coefficient result of Malaysia imports (MSIAIMP) shows a mixed result of negative and positive signs for the relationship between imports and GDP. But according to the significance level, Malaysia's imports are more negatively influencing GDP with 95% significant level at variable D(IMPORTS (-1)). Other than that, referring to the coefficient of export, there is a positive and negative relationship on Malaysia's GDP according to the significance level and the coefficient, which negatively influences GDP in the short-term. Thence, for the independent variables, EXP, IMP and SERV have a negative relationship with the dependent variable, GDP, in the short-term, with at least 99% significance level. While the ECT coefficient is a negative sign and significant to bear the brunt of adjusting the economic shock distortion to the GDP system.

Import: Referring to the analysis results in the Malaysian IMP system, SERV has a significant negative impact on IMP in the short-term. Even though the GDP and EXP coefficients show that the variable has a positive effect on imports (IMP). Also, the ECT is significant for the long-run adjustment with a negative sign.

Export: The Malaysian EXP system, the imports variable (MSIAIMP), shows ambiguous results on its impact on exports (EXP), which is negative, and the significance level is significant with a negative sign, as 99% significance level. Similar to the services variable (SERV), the coefficients indicate a negative relationship with EXP, which is 99% significant in the negative sign. Therefore, these results show a negative short-run relationship of GDP, IMP and SERV with EXP at least at the 0.01 significance level. But the ECT coefficient has a correct sign and has a high level of significance to adjust to the disequilibrium in the long-run.

Services: Based on the analysis results in the Malaysia SERV system, IMP and EXP have a significant negative impact on SERV in the short-term. Even though the GDP coefficient shows that the GDP variable has a positive effect on imports (SERV). Also, the ECT is significant for the long-run adjustment with a negative sign.

Indonesia

GDP: For the ECM output of the Gross Domestic Product (GDP) system in Indonesia, the coefficient result of Indonesia imports (IMP) shows a negative sign for the relationship between imports and GDP at 90% significant level. Other than that, referring to the coefficient of export, there is also a negative relationship with Malaysia's GDP. According to the significance level and the coefficient, it is negatively influencing GDP in the short-term. Thence, the independent variables of services (SERV) have a positive relationship with the dependent variable, GDP, in the short-term, with at least 95% significance level. While the ECT coefficient is a positive sign and not significant enough to bear the brunt of adjusting the economic shock distortion to the GDP system.

Import: Referring to the analysis results in the Indonesia IMP system, EXP has a significant negative impact on IMP in the short-term at D(EXPORT(-4)) at 95% significant level. Even though the GDP coefficient shows that the variable has a positive effect on imports (IMP). Also, the ECT is significant for the long-run adjustment with a negative sign.

Export: The Indonesia EXP system, the imports variable (IMP), shows ambiguous results on its impact on exports (EXP), which is negative, and the significance level is significant with a negative sign, as 99% significance level at D(IMPORT (2)). Meanwhile, the GDP and SERV coefficients indicate a positive relationship with EXP. Therefore, these results show a negative short-run relationship of IMP with EXP at least at the 0.01 significance level. But the ECT coefficient has a correct sign and has a high level of significance to adjust to the disequilibrium in the long-run.

Services: Analysis results in Indonesia SERV system, IMP and EXP have a significant negative impact on SERV in the short-term. Even though the GDP coefficient shows that the GDP variable has a positive effect on imports (SERV). Also, the ECT is significant for the long-run adjustment with a negative sign.

Singapore

GDP: For the ECM output of the Gross Domestic Product (GDP) system in Singapore, the coefficient result of Singapore imports (IMP) shows a negative sign for the relationship between imports and GDP at D(IMPORT(-1)). Other than that, referring to the coefficient of export, there is also a negative relationship with Singapore's GDP at the significant level and the coefficient is negatively influencing GDP in the short term. While the ECT coefficient is a negative sign and significant to bear the brunt of adjusting the economic shock distortion to the GDP system.

Import: Referring to the analysis results in Singapore IMP system, EXP and GDP have a significant negative impact on IMP in the short-term at D(EXPORT(-2)) and D(GDP(-7)) at 99% significant level. Even though the SERV coefficient shows that the variable has a positive effect on imports (IMP). Also, the ECT is not significant for the long-run adjustment with a positive sign.

Export: The Singapore EXP system, the variables of GDP, IMP and SERV show ambiguous results on their impact on exports (EXP), which are positive. Therefore, these results show a positive short-run relationship of IMP with GDP, IMP and SERV at least at 90% significance level. But the ECT coefficient has a correct sign and has a high level of significance to adjust to the disequilibrium in the long-run.

Services: Based on the analysis results in the Singapore SERV system, IMP and EXP have a significant negative impact on SERV in the short-term. Even though the GDP coefficient shows that the GDP variable has a positive effect on imports (SERV). It means that GDP has a positive short-run relationship with SERV. Also, the ECT is not significant for the long-run adjustment with a positive sign.

Wald test in Vector Error Correction Model (VECM)

Malaysia

Table 1: Wald test in VECM before Parsimonious of Malaysia

Endogenous Variables	Exogenous Variables				
	ECT R=1 (t-1)	$\Delta msiagdp_t$	$\Delta msiaimp_t$	$\Delta msia\exp_t$	$\Delta msiaserv_t$
$\Delta msiagdp_t$	-0.001737 (0.7385)	-	1.214897 (0.2899)	1.287517 (0.2457)	1.252538 (0.2705)
$\Delta msiaimp_t$	-0.066789 (0.0002)***	2.638440 (0.0060)***	-	1.863452 (0.0558)**	1.845560 (0.0586)**
$\Delta msia\exp_t$	0.039807 (0.0264)**	2.703298 (0.0049)***	1.202561 (0.2979)	-	1.208107 (0.2943)
$\Delta msiaserv_t$	-0.012152 (0.4483)	2.714138 (0.0048)***	1.189587 (0.3066)	1.192547 (0.3046)	-

Table 2: Wald test in VECM after Parsimonious of Malaysia

Endogenous Variables	Exogenous Variables				
	ECT R=1 (t-1)	$\Delta msiagdp_t$	$\Delta msiaimp_t$	$\Delta msia\exp_t$	$\Delta msiaserv_t$
$\Delta msiagdp_t$	-0.000469 (0.9210)	-	1.703648 (0.1270)	0.805481 (0.4932)	1.209537 (0.3070)
$\Delta msiaimp_t$	-0.055713 (0.0006)***	2.638440 (0.0060)***	-	1.863452 (0.0558)**	1.845560 (0.0586)**
$\Delta msia\exp_t$	0.042432 (0.0040)***	6.172566 (0.0000)***	1.561293 (0.1654)	-	3.762749 (0.0019)***
$\Delta msiaserv_t$	-0.008824 (0.5404)	6.790617 (0.0000)***	1.820937 (0.1145)	1.944143 (0.0927)*	-

Refer to Tables 1 and 2, focus on the long run causality, it can be seen that the coefficient of ECT in the endogenous variables of Malaysia's exports, imports and services are significant at 5% and 1% with the correct sign in the before and after parsimonious, which achieve the criteria. The intuition behind this means that when the imbalance occurs, such as economic shocks in the EXP and IMP equation system, they will be returned to normal balance in the long run by the coefficient adjustment (ECT). Thus, in the short run, the exports are adjusted by 29% and 21% of the past year's deviation from equilibrium. On the other hand, the imports are -0.066789 and -0.055713, which means the economic disturbance caused by the imbalances will be adjusted in the system by 6% and 5%.

Practically, the larger the coefficient value on the ECT, the faster the speed of adjustment in disequilibrium. For instance, the speed of imbalance adjustment in the services system is slower due to the lower ECT value (-0.008824). Moreover, there is a positive feedback linkage between export and economic growth and import and economic growth in the short-run and long-run after parsimony. It is clear from the results that there is validity in the ELG and GLE hypothesis (Choong et al., 2005; Tan et al., 2007; Sulaiman & Md Saad, 2009; Kalaitzi & Cleeve, 2017) and ILG also GLI hypothesis as well (Bakari, 2018). In the services, the ECT indicates that the services exist in the long-run relationship and positively impact Malaysia's imports. It is assumed that the movement of services may determine the amount of imports. In addition, the exports also present the unidirectional relationship to imports, which means that in international trade, exports are necessary for the expansion of imports (Rani & Kumar, 2018).

Indonesia

Table 3: Wald test in VECM before Parsimonious of Indonesia

Endogenous Variables	Exogenous Variables				
	ECT R=1 (t-1)	$\Delta idngdp_t$	$\Delta idnimp_t$	$\Delta idn\exp_t$	$\Delta idnserv_t$
$\Delta idngdp_t$	0.000265 (0.9434)	-	1.766913 (0.0761)*	0.969950 (0.4813)	1.367891 (0.2069)
$\Delta idnimp_t$	-0.043695 (0.1792)	2.479937 (0.0107)***	-	1.094493 (0.3781)	0.999870 (0.4552)
$\Delta idn\exp_t$	-2.029682 (0.0000)***	2.352776 (0.0153)**	2.083725 (0.0324)**	-	2.295253 (0.0180)**
$\Delta idnserv_t$	-0.554018 (0.0000)***	3.162796 (0.0015)***	1.547132 (0.1338)	2.102097 (0.0308)**	-

Table 4: Wald test in VECM after Parsimonious of Indonesia

Endogenous Variables	Exogenous Variables				
	ECT R=1 (t-1)	$\Delta idngdp_t$	$\Delta idnimp_t$	$\Delta idn\exp_t$	$\Delta idnserv_t$
$\Delta idngdp_t$	0.001564 (0.5925)	-	1.570001 (0.1759)	1.435106 (0.2092)	1.569200 (0.1761)
$\Delta idnimp_t$	-0.029178 (0.3074)	5.078900 (0.0001)***	-	4.382546 (0.0012)***	2.264490 (0.0675)*
$\Delta idn\exp_t$	-1.993686 (0.0000)***	5.122509 (0.0004)***	2.209311 (0.0219)**	-	2.524055 (0.0089)***
$\Delta idnserv_t$	-0.518005 (0.0000)***	7.344820 (0.0000)***	1.698458 (0.0892)*	2.413388 (0.0122)**	-

According to Tables 3 and 4, the long-run causality significance was only significant in the endogenous variables of Indonesia's GDP, with a positive sign in the ECT coefficient. It implies that due to any disturbance in the GDP system, a difference from equilibrium will happen, and the GDP system will become unstable. For the short-run causality in Table 4.33, there is a bilateral linkage between exports and GDP with a significant level of 0.01, indicating the ELG and GLE hypothesis (Al-Yousif, 1999; Michelis & Zestos, 2004; Tan et al., 2007; Tang & Lai, 2011). Other than that, the presence of a short-run bilateral relationship between imports and economic growth (Bakari, 2018; Moyo & Mapfumo, 2015), which shows the vitality of imports to economic growth (Noor & Rambeli, 2018). Furthermore, the imports unilaterally influence the exports with 99% significant, which can be explained as the import is a crucial source for export in the aspect of raw materials as the factor of exported goods production (Hassouneh & Fannoun, 2019). Other than that, the services have a positive feedback direction with economic growth. Conclusively, there is strong temporal causality in Indonesia among exports, imports, services and economic growth, as well as the paper of Albiman & Suleiman (2016) shows statistically significant results for the short-run causality between variables. While the world pandemic outbreak substantially disturbs the economic growth, exports, and imports with a 0.01 significant level, it has the least impact on exchange rates with the 90% significant.

Singapore

Table 5: Wald test in VECM before Parsimonious of Singapore

Endogenous Variable	Exogenous Variables				
	ECT R=1 (t-1)	$\Delta sggdp_t$	$\Delta sgimp_t$	$\Delta sg\exp_t$	$\Delta sgserv_t$
$\Delta sggdp_t$	-0.000410 (0.6157)	-	3.290145 (0.0009)***	16.64447 (0.0000)***	9.203526 (0.0000)***
$\Delta sgimp_t$	0.000308 (0.9007)	2.479937 (0.0107)**	-	1.094493 (0.3781)	0.999870 (0.4552)
$\Delta sg\exp_t$	1.494800 (0.0000)***	2.352776 (0.0153)**	2.083725 (0.0324)**	-	2.295253 (0.0180)**
$\Delta sgserv_t$	1.278885 (0.0000)***	3.162796 (0.0015)**	1.547132 (0.1338)	2.102097 (0.0308)**	-

Table 6: Wald test in VECM after Parsimonious of Singapore

Endogenous Variable	Exogenous Variables				
	ECT R=1 (t-1)	$\Delta sggdp_t$	$\Delta sgimp_t$	$\Delta sg\exp_t$	$\Delta sgserv_t$
$\Delta sggdp_t$	-0.000643 (0.3833)	-	3.290145 (0.0009)***	16.64447 (0.0000)***	9.203526 (0.0000)***
$\Delta sgimp_t$	0.001313 (0.5417)	9.191627 (0.0000)***	-	2.829089 (0.0137)**	3.258939 (0.0037)***
$\Delta sg\exp_t$	1.484032 (0.0000)***	2.352776 (2.352776)	2.083725 (0.0324)**	-	2.295253 (0.0180)**

$\Delta sgserv_t$	1.281406 (0.0000)***	3.761556 (0.0130)**	1.224980 (0.2978)	1.224980 (0.2978)	-

Refer to Tables 5 and 6, focus on the long run causality, it can be seen that the coefficient of ECT in the endogenous variables of Singapore's exports, imports and services are significant at 1% with the correct sign in both before and after parsimony, which achieves the criteria. The intuition behind this means that when the imbalance occurs, such as economic shocks in the EXP and IMP equation system, they will be returned to normal balance in the long run by the coefficient adjustment (ECT). Thus, in the short run, the exports are adjusted by 29% and 21% of the past year's deviation from equilibrium. On the other hand, the imports are 1.494800 and 1.484032, which means the economic disturbance caused by the imbalances will be adjusted in the system by both 15%.

Practically, the larger the coefficient value on the ECT, the faster the speed of adjustment in disequilibrium. For instance, the speed of imbalance adjustment in the services system is slower due to the lower ECT value (1.281406). Moreover, there is a positive feedback linkage between export and economic growth and import and economic growth in the short-run and long-run after parsimony. It is clear from the results that there is validity in the ELG and GLE hypothesis (Choong et al., 2005; Tan et al., 2007; Sulaiman & Md Saad, 2009; Kalaitzi & Cleeve, 2017), and ILG also GLI hypothesis as well (Bakari, 2018). In the services, the ECT indicates that the services exist in the long-run relationship and positively impact Malaysia's imports. It is assumed that the movement of services may determine the amount of imports. In addition, the exports also present the unidirectional relationship to imports, which means that in international trade, exports are necessary for the expansion of imports (Rani & Kumar, 2018).

Summary of Findings

Malaysia, Indonesia and Singapore met the research questions and objectives about export (import)-led growth and growth-led export based on the results of the analysis of both contexts using the parsimonious method (import). In the first section, the export (EXP) and import (IMP) of Malaysia, Indonesia and Singapore have a short-term bilateral relationship with economic growth (GDP). These findings are consistent with numerous empirical studies conducted in Asian countries, particularly Malaysia and Singapore, which also reported a positive relationship between the variables under investigation (Tan et al., 2007; Tang & Lai, 2011; Albiman Md & Suleiman, 2016; Mohd Noor & Ramli, 2018). Consequently, both countries are equipped with ELGH and ILGH, as well as GLE and GLI, because export-dependent nations are seeing tremendous growth. Despite this, there is limited evidence of a long-term link between factors in Malaysia. The ECT of Singapore demonstrates an unstable response to long-term economic imbalance. Consequently, there is no long-term organization in Singapore.

The short-term relationship between Singapore, Malaysia and Indonesia is superior to the long-term relationship, which does not exist. The results indicate that the unidirectional link between imports and exports is reasonable due to the moderate services. Singapore frequently monitors exchange rate fluctuations to ensure price stability, as greater price stability and low inflation may increase imports. For the international commerce theory, export is causal to import growth in Malaysia (Rani & Kumar, 2018), whereas import is statistically significant to export growth in Indonesia (Fannoun & Hassouneh, 2019). With the importance of the exchange rate in developing economies, it is undeniable that the services deserve to have a favorable impact on economic growth (Stracca, Mileva & Habib, 2016).

Based on the significance level of the ECT coefficient for Malaysia, Indonesia and Singapore, it can be concluded that Malaysia's economy adjusts to disturbance shocks more quickly than Singapore's but more slowly than Indonesia. Referring to the equivalent ECT, for example the speed of adjustment through Malaysia's import system (98%) is greater than Singapore's import system (36%), although Singapore's exports (25%) are faster than Malaysia's (24%). As a result of a shared cause, ECT is robust in the three nations, and its exports and imports contribute positively to long-term economic growth.

5. Conclusion and Recommendations

Since the t-statistic of each variable is greater than the critical value, the unit root test concludes that the time series for both countries is non-stationary at the level form, with no significance in the probability value. However, although initially distinct, the results are stationary and all variables are significant between 95% and 99% of the time. The Augmented Dickey-Fuller (ADF) t-value for each variable is below 5% of the critical value; hence, the time series data are stationary at the first difference of intercept, intercept with trend, and none (pure random walk). In order to determine the best lag length, Vector Autoregression (VAR) is applied to all variables in this study. The optimal latency for both countries selected by the Akaike Information Criterion was reported to be 12. (AIC). Consequently, both nations conducted the Johansen Juselius Cointegration Test (JJ) and found evidence of cointegration.

Following the VECM, the results have been separated into two sections: one cointegration model and two cointegration models. In the initial section of the VECM results, there are short-run and long-run relationships between variables in Malaysia and Indonesia, but just a short-run link in Singapore. The export-led growth and import-led growth hypotheses are nevertheless supported for both nations. In contrast, the second segment yields more robust results than the first. The VECM illustrates the short-run and long-run effects of exports, imports, and the exchange rate on Malaysia's economic growth. In contrast, Singapore's economic growth has only been influenced in the short-term by the exchange rate. Despite the long-term association between exports and imports and Singapore's economic growth, there is a short-term dynamic relationship between these variables. In addition, the objectives were met by confirming the short-run and long-run existence of the export (import)-led growth and growth-led export (import) hypotheses. In addition, the exchange rate had a beneficial bilateral effect on the economic growth of Malaysia, Indonesia, and Singapore.

In conclusion, this study accomplished nearly all of its objectives. This study identifies the effects and relationships of exports, imports and services that influence the short-and long-term economic growth of Malaysia, Indonesia and Singapore.

Policy Implication and Recommendations

Malaysia should increase trade liberalization by further facilitating and expanding market access by resolving tariffs and non-tariff measures in order to become an open economy. The Free Commerce Agreement (FTA) is effective in promoting trade, investment and economic development as well as maintaining Malaysian exporters' competitiveness. Malaysia managed to do well in external commerce despite the pandemic, with the greatest monthly exports in December 2020. (Ministry of International Trade and Industry, 2021). It is thought that the recent signing of the Regional Comprehensive Economic Partnership (RCEP) will increase market access and aid in expanding exports. As reported imports are required for Malaysian exports, Malaysia possesses a plethora of resources. The government may rely on Heckscher-Ohlin's theory of comparative advantage to import scarce and expensive-to-produce goods while utilizing local forces of plenty to sell abroad. To curb imports, the government should simultaneously apply higher effective tariff rates on dangerous items. Singapore, on the other hand, is one of the most open trade economies in history due to the high amount of duty-free products exported to the country. The results indicate that Singapore's exports and imports are interdependent. For social and environmental reasons, the government should eliminate taxes on imported raw materials and intermediate goods such as technologies and capital goods, while restricting dangerous products such as non-medical chewing gum and tobacco products. Since 1989, Singapore has also been a member of the Asian Pacific Economic Cooperation (APEC). This free trade policy has been implemented by Singapore to decrease trade barriers throughout the Asia-Pacific region. In 2020, China, Malaysia, and the United States will be Singapore's top three trading partners, while Singapore's imports from Malaysia will exceed its exports to Malaysia (Department of Statistics Singapore, 2021).

Imports have contributed to Singapore's economic growth as a result of a stable exchange rate that facilitates cheaper imports for consumers and businesses. In spite of the circuit breaker announced for April 7, 2020, Singapore has faced a more severe recession than during the previous crises. Singapore's monetary policy has been tasked with facilitating the economic recovery. Singapore's controlled exchange rate against a trade-weighted currency basket allows the currency to float but remain steady (Monetary Authority of Singapore, 2020). As the exchange rate decreases, the liquidity in the banking system is purposefully enhanced to reduce

higher funding costs and fund foreign currency liquidity (Monetary Authority of Singapore, 2020). During the uncertainty of this epidemic, Malaysia maintains a flexible exchange rate regime for the ringgit based on the strength of demand and supply, as the exchange rate has historically served as a shock-adjustment mechanism for long-term disequilibrium. A flexible exchange rate regime makes Malaysia susceptible to exchange rate volatility (Hashim et al., 2019). Despite the fact that a flexible exchange rate indirectly stimulates commerce, it made Malaysia's economy fragile, resulting in a severe drop during the global financial crisis of 2008. Since the exchange rate is significant for export-dependent nations, it indirectly influences international trade and investment between nations. In order to avoid foreign exchange market volatility. In the midst of a pandemic, the Malaysian central bank must control the movement of the exchange rate by ensuring liquidity on the foreign exchange market to prevent disruptions to local economic activity, such as trade and investment (Bank Negara Malaysia, 2020).

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Community-Based Organizations' Service Delivery in Civic Leadership Engagement Towards Mental Health Awareness in The South-West Zone, Nigeria

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Abstract: Mental health is foundational to human productivity and national development. Grassroots civic actors are essential to bridge the health service where there is scarcity. Quality health service delivery, therefore, is not just for hospitals and elites, but rather it requires multidimensional collaboration with community-based organizations (CBOs) via visionary leadership. This study explored the roles of civil organizations in mental health advocacy in Nigeria's Southwest geo-political zone. Three research questions and one hypothesis were evaluated using a descriptive survey design. A multistage and convenient sampling technique was used, resulting in 200 samples. Researchers engaged a self-designed, 15-item questionnaire for data collection. The study's contribution showed that community-based organizations significantly contribute to mental health support at 71.5%, bridging the health gap in rural areas. CBO's effectiveness was rated strong at 79.4% level. Furthermore, the report established that groups collaborate with public health centers to enhance mental health support in the Southwest of Nigeria. Based on the findings, the study recommended that policymakers in the health sector should formally incorporate CBOs' roles as an essential, assistive service for mental health in rural communities. There should also be a strategic public-private partnership with a designed framework to increase funding and capacity-building for organizations. The study concluded that the professional delivery capacity of groups requires training and retraining in prioritizing mental health advocacy to enhance citizens' capacity for nation-building in Nigeria.

Keywords: *Community-based organizations, Leadership engagement, Quality service, Health awareness, Mental health*

1. Introduction

A healthy mind is crucial to social cohesion and national productivity. The fast-paced digital world and diverse social demands seem to increase pressure on people's mental health. Increase in drug abuse, suicide cases, anxiety, and uncontrollable outbursts of anger resulting in violence are vivid indices of mental health challenges. Adeduntan and Adetayo (2022) reported an increase in psychological trauma due to discriminatory practices against women and girl-children in Nigeria. Without timely access to quality health through integrated, local services, especially for rural dwellers, stigma culture and religious beliefs might continue to shape mental health discourse, achieving an egalitarian, prosperous economic society, a herculean task for Nigeria.

Nigeria reportedly has one of the highest burdens of mental health disorders in Africa, with an estimated 25% of the population experiencing challenges at some point (Wahab, 2020). Yet, budgetary allocation to health is less than 3%. Attention to mental health is less prioritized, unlike physical health issues (Otorkpa et al., 2024). This might be connected with misconceptions about mental health and economic hardship in Nigeria (Lawal et al., 2024). If unattended to, poor mental health can make it difficult to break the poverty cycle, especially in rural communities (Lawal et al., 2024; Otorkpa et al., 2024). Thus, increasing traditional beliefs, social stigmatization, violence, and poor relationship management. Therefore, this study considers an inclusive approach to promote mental health advocacy.

The public health system in Nigeria is structured on a three-tiered, pluralistic nature provided by the federal, state, and local governments. However, 85.3% (34,076) of health facilities are primary healthcare centres (PHCs) with only 20% considered functional. This partly explains why Nigeria ranked 187th out of 191 countries in the WHO health system ranking in 2023. The above data clearly show, according to Yisa et al (2025), the need for a public-private partnership to improve service delivery and universal health coverage. Kruk et al (2018) explained that a nation's health system is meant for the people and expected to work with

people to improve health outcomes. The quality of a nation's health system will be determined by people's health needs, expectations, governance of the health system, and collaboration across different sectors. Therefore, Yisa et al (2025) suggested that the health system should promote value by enhancing trust through giving good care irrespective of people's health concerns. To this end, improvement in health outcomes will enhance productive life and national growth. Quality health delivery should be available to all and not for elites alone or as a future pursuit (Kruk et al., 2018).

2. Overview of Mental Health Awareness

Health matters are a fundamental right of humans (Isokon et al., 2021). Mental health needs attention, being under-prioritized, poorly funded and under-evaluated, thus increasing social inequality and gaps in health service provisions (WHO, 2024; Espinal et al., 2025). Mental health (MH) disorder comprises of conditions that affect people's cognition, emotions, behavior, and overall functionality. The World Health Organization [WHO] (WHO, 2022) stated that a greater number of mental disorders occur before adulthood, with 50% or more occurring by age 14. Traumatic stress also affects psychological development in adolescents, leading to severe impairments in adulthood. Due to poor awareness, mental health patients are often stigmatized, discriminated against, and socially excluded. Therefore, promoting mental wellness requires emotional support, psychological, and social well-being to enhance an individual's functioning.

Mental health is a complex issue that affects individual's personality, relationships, career and life's quality on the overall. WHO (2024) asserted that mental health is a state of being well where individuals' abilities are realized, able to cope with life stresses, work productively, and engage in community contribution. It is important to understand the types of mental health to inform awareness promotion, treatment, and support environments. MH is categorized based on prevalence and symptoms. These include anxiety disorder (excessive fear), depression, bipolar disorder, post-traumatic stress disorder [PSTD], schizophrenia, eating disorders, and substance use disorders (Valley Forge Medical Centre [VFMC], 2025). Data revealed that over 301 million people globally suffer from anxiety disorder, while 280 million are dealing with depression. Bipolar disorder is an unpredictable, extreme mood disorder that makes keeping relationships difficult, while PTSD is re-experiencing/flashbacks of trauma, causing avoidance and negative mood swings. Therefore, Espinal et al (2025) suggested that MH strategies should include prevention, awareness, promoting human rights, and preventing child abuse.

Civic Leadership Engagement (CLE)

Leadership transcends position and title. Leadership influences a group's performance. Adeduntan (2025), citing Theriono and Lianto, agreed that leadership is a process of influence that gets tasks done with other members. Adebayo et al. (2020) emphasize developing civic competence with collaborative skills to equip citizens for effective participation and sustenance of democratic structures in Nigeria. Engagement is a deep sense of participation (Risku, 2024). It involves cognitive, affective, and behavioral participation in goal-oriented activities. That is, knowledge participation, shared feeling (affective), and right attitudes. Similarly, Iwu and Gbadamosi (2011) posited that management of chaotic/conflicting situations is a role of transformative leadership that is relevant to Africa and Nigeria.

Leadership engagement (LE) in the promotion of health, safety, and environment (HSE) is critical to health system management. O'Rourke (2024) described LE as the visible and active participation of top leaders in driving performance and organizational culture. LE involves communicating vision, listening, modeling right behaviors, and fostering a supportive environment. Risku (2024) described LE from students' engagement lens involving an individual's effort, time, energy, feelings, and sensible participation in leadership activities. Specifically, LE is the participation opportunity for health workers, staff, and other partners in activities that promote understanding of the importance of HSE issues (O'Rourke, 2024). Hence, CLE in health is a solution-based approach.

Community-based Organizations (CBOs)

Participation of community-based organizations (CBOs) in local affairs changes communities' fortunes. Herat Bench (2022) states that CBOs are local groups that are formed, staffed, and work to improve lives in a community without focusing on profit-making. CBOs are non-governmental groups also known as community

associations in Nigeria, contributing to local development (Isokon et al., 2021; Service Opare, 2007) and registered by the Department of Social Development (Akpehe, 2016). Eze (2019) pointed out the skills acquisition CBOs rendered to persons living with disabilities (PLWD) to function independently. Hence, services rendered are complementary to government health departments (Soroye & Oleribe, 2021). It links communities to secure resources in areas of need and provides information channels for development (Isokon et al., 2021; Heart Bench, 2022). In contrast, CBOs are different from large non-profit organizations that run multiple projects operating outside their main location (Herat Bench, 2022). CBOs are more localized, limited in operation (single project) and may collaborate with bigger organizations, but not as a branch.

Findings of Isokon et al. (2021) showed that youths and energized adults dominate CBOs in Nigeria's rural areas. Groups are categorized based on function (Isokon et al., 2021), including structure and population being served (Heart Bench, 2022). The function-based groups provide services across health, micro-finance, and advocacy. For instance, Umeh and Okeke (2019) stated that CBOs create cancer awareness, give free or subsidized screenings, and provide other supports. Wahab (2020) also recognized that groups support mental health patients, making healthcare more accessible and culturally relevant than the conventional health system. Financial resources are mobilized through fundraising, campaigns, and financial grants (Onyeka, Velijanashvili & Hifni, 2020). Although many are limited by funding, leadership challenges, socio-economic factors, external networking, and documentation challenges faced with government agencies (Service Opare, 2007; Isokon et al., 2021; Heart Bench, 2022). The effectiveness of CBOs requires financial and educational assistance (Isokon et al., 2021). Also, CBOs should build relationships with the government, collaborate with large stakeholders, develop members' capacity, practice feedback from residents, and ensure community leaders support (Join the Collective, 2025; Alliance for Justice, 2024). It is against this background that this study's contributions extend civic leadership focus on governance to how civic leaders, through CBOs, can become frontline actors in mental advocacy.

Purpose of the Study

The study explored the civic leadership role of community-based organizations in mental health awareness promotion within the Southwest, Nigeria. Specifically, the objectives are to:

- I identify community-based organizations' contributions in providing mental health support in Southwest, Nigeria.
- Determine the extent of the CBOs' effectiveness in providing mental health support.
- Examine the extent of collaboration between community-based organizations and public health systems in providing mental health support in Southwest, Nigeria.

Research Questions

- What are the contributions of community-based organizations in providing mental health support in Southwest, Nigeria?
- How effective are the contributions of community-based organizations in providing mental health support in Ogun State?
- To what extent do community-based organizations collaborate with public health systems in providing mental health support in Ogun State?

Hypothesis

HO_1: There is no significant difference between CBOs' contributions and the extent of effectiveness in providing mental health support.

3. Method

This study engaged a descriptive survey design involving a quantitative approach to data collection through a questionnaire as the instrument. The study area was conducted in Southwest, Nigeria; a predominantly Yorubaland by origin yet ethnically diverse, accommodating people from other regions, including foreigners (Onasanya & Achugo, 2023). Meanwhile, the target population for the study was drafted from Ogun State, known as the "Gateway State." The State has strategic connections to Lagos, Oyo, Osun, Ekiti, and Ondo States; other parts of Nigeria, including the West African sub-region. Despite the state's growing urbanization,

industries, rich historical sites, and educational hub, violence, including ritual killings, seems to prevail in most communities (TVC News, Jan. 26, 2026; Guardian Nigeria News, Jan. 24, 2025).

The study's sample size was 200 respondents from four different CBOs selected through multistage and convenience sampling techniques (50 respondents each). A 15-item questionnaire titled "Community Organization's Role in Mental Health (CORiMH)" was used to draw responses rated on a 4-Point Likert scale. The instrument has face and content validity with a reliability coefficient of 0.74, Cronbach's Alpha. Data obtained was analyzed using descriptive statistics, while Chi-square (χ^2) statistics were adopted for the testing of the hypotheses at a 0.05 level of significance.

4. Results Presentation

Figure 1: Demographic Characteristics of Participants

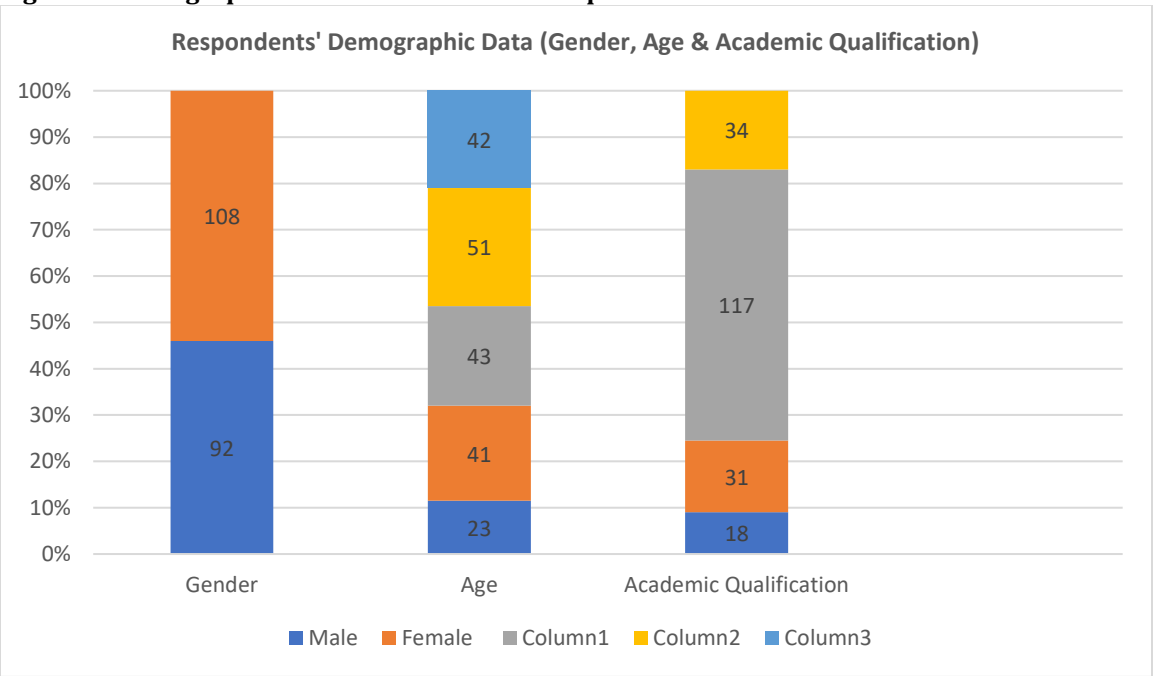


Figure 1 shows that 92 (46%) of the participants were male, while 108 (54%) were female. Also, 23 (11.5%) participants were within the ages of 18 to 25 years, as the lowest age group, while ages 42 to 49 had 25.5% (51) participants as the highest age group. The academic qualification shows Bachelor's degree holders as the largest group, 117 (58.5%), while secondary school certificate holders were the least with 9.0% (18) participants. Hence, the study had more female participants, and respondents aged 42- 49 were the largest, while bachelor's degree holders dominated the study group.

Research Question 1: What are the contributions of community-based organizations in providing mental health support in the Southwest, Nigeria?

Table 1: Community-based Organizations' Contribution to Mental Health Support

S/N	Statement	SA	A	D	SD	Total	Remarks
1.	My organization provides mental health services to the community	77 (38.5%)	100 (50%)	14 (7%)	9 (4.5%)	200	Strongly Agree (88.5%)
2.	My organization's environment supports the non-stigmatization of mental health patients	37 (18.5%)	81 (40.5%)	67 (33.5%)	15 (7.5%)	200	Agree (59.0)
3.	My organization creates awareness about mental health issues in our community.	30 (15%)	74 (37%)	71 (35.5%)	25 (12.5%)	200	Agree (52.0%)

4.	Counselling therapy is part of the services we provide as mental health support	54 (27%)	89 (44.5%)	20 (10%)	37 (18.5%)	200	Agree (71.5%)
5.	We connect community members with big institutions with mental health resources.	67 (33.5%)	106 (53%)	16 (8%)	11 (5.5%)	200	Strongly Agree 86.5% **Agree**
	Total	**26.5%**	**45.0%**	**18.8%**	**9.7%**		**71.5%**

Table 1 results show a 88% Strongly agree (38.5% = 50%) that CBOs provide mental health services to community members. In addition, 86.5% agree that CBOs connect community members with big organizations with mental health resources. However, provision of counseling therapy service was rated least with 52% average agreement, followed by 59% agree that their organization's environment supports non-stigmatization of mental health patients. Based on this result, in all, 71.5% (26.5% -SA+ 45% -A) agree that CBOs contribute to providing mental health support in Southwest, Nigeria. Table 1 findings, therefore, indicate that community-based organizations make significant contributions towards mental health provision.

Research Question 2: How effective are the contributions of community-based organizations in providing mental health support in the Southwest, Nigeria?

Table 2: Effectiveness of CBOs in Mental Health Support

S/N	Statement	SA	A	D	SD	Total	Remarks
6.	My organization manages mental health symptoms of community members	47 (23.5%)	119 (59.5)	20 (10%)	14 (7%)	200	Strongly Agree (83.0%)
7.	Collaborate with other organizations on mental health services	62 (31%)	101 (50.5%)	25 (12.5%)	12 (6%)	200	Strongly Agree (81.5%)
8.	Members are trained on the purpose of the mental health campaign	38 (19%)	111 (55.5%)	31 (15.5%)	20 (10%)	200	Agree (74.5%)
9.	Our mental health campaign achieved support from community leaders	67 (33.5%)	106 (53%)	16 (8%)	11 (5.5%)	200	Strongly Agree (86.5%)
10.	My organization captures feedback on program activities from community members.	53 (26.5%)	90 (45%)	38 (19%)	19 (9.5%)	200	Agree (71.5%)
	Total	**26.7%**	**52.7%**	**13%**	**7.6%**		**Agree (79.4%)**

Table 2 shows how effective CBOs' contributions are in providing mental health support. Item 9 shows strong agreement that CBOs gain community leaders' support, shown at 86.5% (33.5% + 53%). Furthermore, item 6 shows that CBOs manage mental health symptoms of community members represented at 83.0% (23.5% + 59.5%). Result of item 10 indicates the least agreement level at 71.5% (26.5% + 45.0%) on capturing feedback from community members on CBOs' activities. Generally, research question two indicates 79.4% effectiveness level (26.7% + 52.7%). Hence, Table 2 findings conclude that community-based organizations' contribution is effective in providing mental health support in the southwest of Nigeria.

Research Question 3: To what extent do community-based organizations collaborate with public health centres in providing mental health support in Southwest, Nigeria?

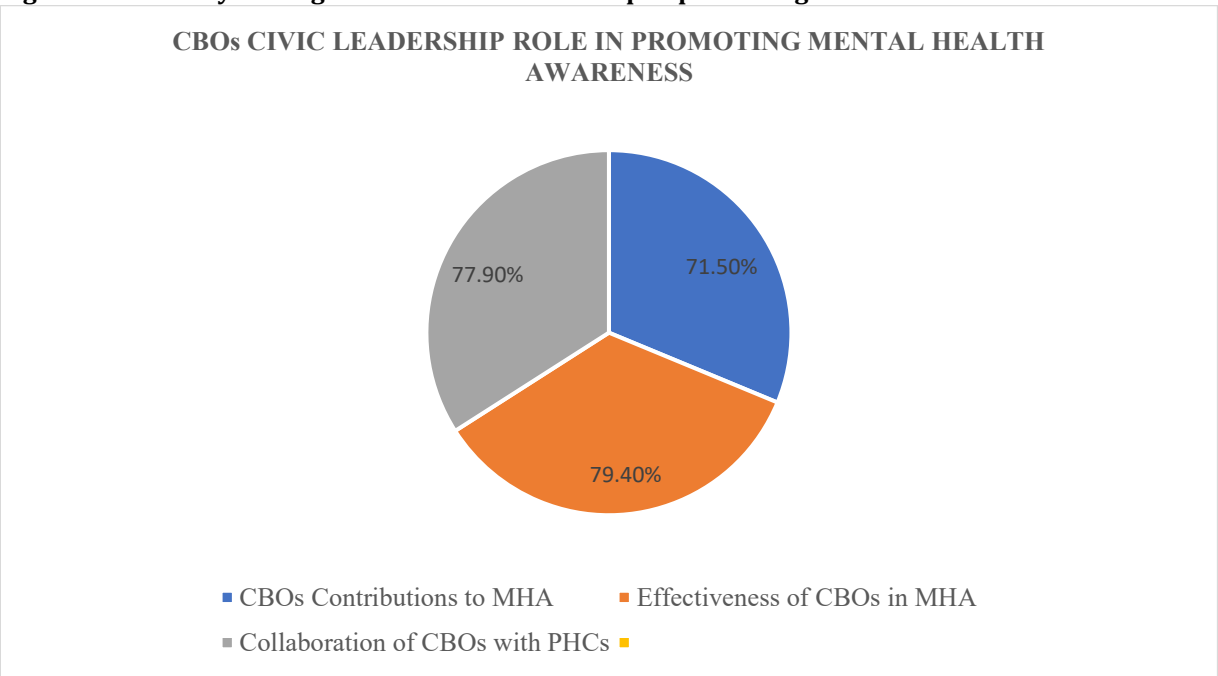
Table 3: CBOs Collaboration with Public Health Centres on Mental Health Support

S/N	Statement	SA	A	D	SD	Total	Remarks
11.	My organization receives training manuals from local health centres on mental health awareness	64 (32%)	91 (45.5%)	29 (14.5%)	16 (8%)	200 (100%)	Agree (77.5%)
12.	Health centres recognize my community organization's activities in mental health service delivery	79 (39.5%)	89 (44.5%)	15 (7.5%)	17 (8.5%)	200 (100%)	Strongly Agree (84.0%)
13.	My organization shares expert resources from the public health centre to support mental health awareness	57 (28.5%)	79 (39.5%)	39 (19.5%)	25 (12.5%)	200 (100%)	Agree (68.0%)

14.	The public health centre communicates with my organization to improve our capacity for mental health support.	81 (40.5%)	89 (44.5%)	19 (9.5%)	11 (5.5%)	200 (100%)	Strongly Agree (85.0%)
15.	My organization refers individuals to public health centres.	58 (29%)	92 (46%)	26 (13%)	24 (12%)	200 (100%)	Agree (75.0%)
	Total	**33.9%**	**44.0%**	**12.8%**	**9.3%**	**100%**	**Agree (77.9%)**

Table 3 shows the extent to which community-based organizations collaborate with public health centres (PHCs) in providing mental health support. Item 14 shows 40.5% strongly agree, while 44.5% agree, respectively providing 85.0.% strong agreement level that PHCs communicate with CBOs to improve capacity on mental health support. Also, item 12 at 39.5% strongly agree, while 44.5% agree, resulting in 84.0% strongly agree level that health centres recognize CBOs activities on mental health service delivery. Meanwhile, item 13 has the least agreement at 65.0% moderate level (28.5% + 39.5%), indicating that CBOs share expert resources from PHCs to support mental health awareness. Table 3 findings, therefore, conclude that positive collaboration existed between CBOs and PHCs on the provision of mental health awareness in Southwest, Nigeria.

Figure 2: Summary findings of CBOs' civic leadership in promoting mental health awareness



Hypothesis One: There is no significant difference between CBOs' contributions and the extent of effectiveness in providing mental health support in Southwest, Nigeria.

Table 5: Significant difference between the contributions and extent of effectiveness of CBOs in providing mental health support

Variables	N	Mean	St. Dev	df	t-calc	p-value
Contributions of CBOs in providing mental health support	200	3.40	1.20	8	0.574	0.290
Extent of CBOs' effectiveness in providing mental awareness supports	200	3.60	1.20			**Accept**

P < 0.05; P= 0.290

Table 5 shows that there is no significant difference in the contributions of community-based organizations and the extent of effectiveness of CBOs in providing mental health support. The calculated t-value (0.5774) is greater than the p-critical value (0.290) at the 0.05 level of significance. The result is not statistically significant. Hence, we fail to reject the null hypothesis that community-based organizations' contributions are not

significantly different in the extent of effectiveness in providing mental health support within Southwest, Nigeria.

Discussion of Findings

The study found that community-based organizations (CBOs) make significant contributions in providing mental health support in the Southwest, Nigeria. This finding supports Heart Bench (2022), who pointed to Community-Based organizations' goal as service that improves lives in the community, and the finding also aligns with Eze (2019), who admitted that CBOs assist persons with disabilities to learn new skills to function independently. Furthermore, Service Opare (2007) agreed that though CBOs are informal, small groups with diverse services, the groups contribute to local development.

Similarly, the study found that CBOs are effective in providing mental health support in Southwest, Nigeria. This finding is in line with Wahab (2020), who noted that CBOs services mental health support is more accessible and culturally relevant to the community. Also, Isokon et al. (2021) and Heart Bench (2022) stated that CBOs link communities to secure resources and act as channels of information for development. Also, the finding supports the assertion of Umeh and Okeke (2019) that CBOs complement government efforts in healthcare institutions to create awareness, which facilitates early detection of health issues through free or subsidized screenings. The finding supported Onyeka et al. (2020) that CBOs mobilize financial resources to help patients with mental health in treatment costs. These organizations are effective because they can address social determinants of mental health and foster stronger community connections.

Additionally, the findings showed that CBOs have significant collaboration with the public health sector in the Southwest, Nigeria. This finding supports Akpehe (2016), who noted that government departments of Social Development register CBOs. And the services are complementary to conventional, government health departments (Soroye & Oleribe, 2021). This indicates that healthcare delivery systems recognize civic contributions of individual citizens and groups beyond titles. Service to humanity generally demonstrates leadership by influence, as stated by Adeduntan (2025). It is simply a transformation through getting tasks done. The CBO's collaboration reflected civic leadership engagement, also being in tandem with Risku's (2024) opinion that engagement includes a deep sense of participation. CBOs demonstrated leadership engagement through the visible and active involvement in health matters, as summed by O'Rourke (2024), that leadership engagement included engaging opportunities with health workers, staff and other partners in diverse activities to promote issues of health, safety and environment (HSE).

5. Conclusion and Recommendations

Summary and Conclusion

The study established that Community-based organizations make significant contributions in providing mental health support and are effective in supporting mental health care. Also, CBOs do collaborate with public health centres in providing mental health support in the Southwest, Nigeria.

Therefore, concluded from the findings that community-based organizations are an integral part of the community mental health care process, with an immense contribution to residents' psychological well-being. Hence, CBOs should be acknowledged within mental health policy to enhance quality health service delivery in the rural areas, especially in Nigeria.

Recommendations

The government should incorporate the role of CBOs as essential mental health services to address the needs in rural communities.

Policy makers in Nigeria's health sector should design a strategic partnership framework that will increase funding and capacity-building for CBOs. Similarly, a formal process to foster deeper collaboration between CBOs and public healthcare systems should be established to enhance access to expertise and resource sharing. The government department responsible for the registration of CBOs should focus on continuous training and retraining of CBOs, including promotion of capacity-building in handling mental health support. This training assistance can also be made a public-private partnership initiative.

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Conceptual Framework on the Interplay Between Basic Psychology, Mental Health and Academic Performance

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Abstract: Academic performance is a multidimensional parameter that extends beyond cognitive ability and includes emotional, behavioural, and psychological aspects of students' learning. It is the product of the knowledge and skills students possess and is the basis for them to pursue a higher education and career as well as lifelong learning. While most of us think of cognitive capabilities as the main determinants of academic success, there is growing evidence that psychological characteristics and mental health are equally important as well. In this paper, we conceptualise the interplay of the basic psychological characteristics, such as cognitive skills, personality and motivation, and mental health factors (e.g., anxiety, depression and emotional well-being), and what influences students' academic achievement in school. By incorporating all of the psychological theories (i.e., Self-Determination Theory, Social Cognitive Theory and Broaden-and-Build Theory), we have developed an integrated theory to explain the interplay of psychological and mental health in academic achievement. This paper contributes to the literature through the application of these theoretical frameworks to show how self-efficacy, self-regulated learning, and affective states are the most important mediating factors in psychological attributes and mental health in academic achievement. It also challenges conventional educational paradigms in the sense that emotional well-being and psychological resilience are cognitive and academic success factors rather than just the outcome of an individual's achievement. This conceptual paper provides a powerful overview of psychological factors in academic performance and is very useful to students (and higher education institutions) and policymakers for improving student well-being and academic performance.

Keywords: *Academic Performance, Basic Psychology, Mental Health, Self-Determination Theory, Social Cognitive Theory*, *Broaden-and-Build Theory*

1. Introduction

Academic performance is a driver of future education, career opportunities, and mobility in general. Beyond its individual implications, it is a core driver of human capital development, economic competitiveness, and long-term sustainable growth in a nation. Academic achievement in higher education cannot be explained purely by cognitive ability, even though it is a meaningful predictor of performance. In modern educational systems, success relies much more on the ability to think. Students need more than intellectual ability to succeed in complex academic environments. A student needs to have the cognitive capacity to learn, the psychological organisation that guides the goals to be achieved and the mental health to have a functioning mind at all times (Alruthaya et al., 2025).

In addition to being able to understand abstract concepts, maintain focus on learning, solve problems, and retain information, successful students will also need a lot more psychological and behavioural skills. Academic achievement is a critical aspect of academic life as it develops knowledge and skills (Pham Thi et al., 2025). A good education in a university is good for the future and human capital, as well as the development of society. Mental health issues faced by university students are increasing globally (Arhin, 2024). Mental health problems lead to a student being unable to concentrate and learn well, and poor academic performance can also affect students' performance (Arhin, 2024). That is, poor mental health may make students feel they can't get to where they want to go as well.

In the Malaysian context, understanding the relationship between basic psychological traits, mental health, and academic performance is increasingly important as higher education institutions strive to develop graduates who are both academically competent and psychologically resilient. Malaysian university students face growing challenges, including academic pressure, financial stress, career uncertainty, and the demands of digital learning, all of which can negatively affect their well-being and academic success. However, existing local research has largely examined psychological factors and mental health separately, creating a gap in

understanding their combined influence on academic performance. Therefore, this conceptual paper proposes an integrated framework to provide a more holistic understanding of these relationships and to support the development of evidence-based interventions and educational policies that promote both student well-being and academic excellence.

For decades, researchers have been working on Grade Point Averages (GPA) by considering a wide range of factors (i.e., intellectual ability, personality traits, psychosocial factors, and motivational models) (Harris, 1940; Neisser et al., 1996). Now, academic performance is more than grades, and we have more than one metric that we know about (i.e., grades), but we have a better idea of what it is like to work hard, think critically, and be able to solve problems and cope with the challenges in life (Alruthaya et al., 2025; Sultanova et al., 2024). Due to these reasons, studying the psychological and mental health factors of academic achievement has been a major focus of educational research (Zhu et al., 2026). And so, in this perspective, we focus on two primary determinants of school performance: basic psychological factors (cognition, personality, motivation, and self-regulation) and mental health indicators (emotional well-being, anxiety, stress, and depression). With the view of the above, we need to find out if and how basic psychological factors and mental health affect students' academic performance. This connection is crucial in explaining the differences in how educational performance is affected and in providing an understanding of how to improve psychological well-being and academic performance.

The next few sections work out the progression of the study. The literature review first provides a synthesis of the literature on the topic and the theoretical and empirical basis, and in particular, the main gaps of the existing literature. Then the methodology section describes the qualitative approach of the study and the theoretical background (the data sources and the analytical approach) which has been used in the synthesis. Finally, the findings and discussion section summarizes the key points from the literature and the analysis based on the theoretical background and the previous literature to provide a comprehensive picture of the phenomena.

2. Literature Review

Basic Psychology and Academic Performance

Cognitive abilities and personal characteristics are widely regarded as important aspects of basic psychology that have an impact on academic performance. Academic achievement is directly related to general and specific cognitive abilities. Although general cognitive ability is the basis of all aspects of cognitive ability, specific areas such as fluid intelligence and working memory are necessary for complex problem solving, reading comprehension, and knowledge manipulation (Garner & Robison, 2026).

Apart from cognition, personality traits are key to educational outcomes. Conscientiousness is the most reliable predictor of academic performance among personality traits and is not related to intelligence (Garner & Robison, 2026). Students with high conscientiousness are disciplined, creative, and have good organizational skills, which makes them able to cope with study and academic pressure well (Garner & Robison, 2026). Neuroticism is negatively associated with academic performance because it is associated with emotional instability and higher vulnerability to stress and is a predictor of poorer academic performance (Aboushawareb et al., 2026). Students with high conscientiousness are more likely to have positive learning experiences, adaptable coping responses to situations, manage their emotions, and be more self-centered. Lower conscientiousness may further increase our susceptibility to stress, anxiety, and emotional exhaustion and thus hurt our mental health and academic performance.

Motivation is the psychological fuel that transforms cognitive ability into tangible achievement (Pham Thi et al., 2025). Ryan and Deci's Self-Determination Theory is a broad tool to understand the psychology of motivation in education (Murad & Alajmi, 2026). Informed by Self-Determination Theory, intrinsic motivation is high when the students' basic psychological needs for autonomy, competence, and relatedness are fulfilled (Murad & Alajmi, 2026). Inactive environments that lack these needs can sap motivation and lead to burnout, especially when the motivation is based on extrinsic rewards (Murad & Alajmi, 2026).

Self-efficacy, based on Social Cognitive Theory (SCT), is the belief that a student can do what they need to do to achieve certain goals (Arhin, 2024; Wang et al., 2025). High academic self-efficacy leads to a student's effort level that is high, so that students can continue to work hard in school and can use creative learning strategies.

Academic self-efficacy is a buffer to cope with mental health stressors and academic performance in a way that helps a resilient student to continue to succeed in the face of stress (Arhin, 2024; Wang et al., 2025). Self-Regulated Learning is a process where learners monitor, direct, and follow their thoughts, feelings, and behavior so that they are able to achieve their goals (Wang et al., 2025). SRL is a bridge, connecting positive emotions and affective learning methods to academic performance (Wang et al., 2025). Motivation plays a crucial role in the overall learning environment (Pham Thi et al., 2025).

Mental Health and Academic Performance

Anxiety, stress, and depression are common factors in academic performance (Arhin, 2024; Shillington et al., 2026). Negative emotional states are a drain on resources, which affect working memory, attention, and executive functioning and hence are critical to learning (Zhu et al., 2026). For example, high specific distress, such as math anxiety, can cause cognitive interference and reduce learning in STEM subjects (Hossain et al., 2025). But the relationship between distress and academic performance is nuanced. The Yerkes-Dodson Law indicates that mild stress or anxiety can work as an adaptive motivator for students to be more alert and not avoid issues (Arhin, 2024). But when stress crosses into chronic distress or depression, it is common to predict low engagement, low self-efficacy and poor academic performance (Aboushawareb et al., 2026; Arhin, 2024).

In contrast to the narrowing effect of psychological distress, positive emotional well-being improves a student's learning (Carmona-Halty et al., 2019). In line with the Broaden-and-Build Theory, positive emotions (e.g., joy, hope, pride) expand a student's thought-action repertoire, enhancing cognitive flexibility, creativity, and problem-solving abilities (Cherono et al., 2026). These positive emotions "build" lasting psychological resources, such as resilience, for future academic stressors (Cherono et al., 2026; Das et al., 2025). Positive emotions are associated with higher academic motivation, SRL and better grades (Cherono et al., 2026; Das et al., 2025). Positive emotions broaden the focus and attention and increase emotional well-being (Fredrickson & Joiner, 2002).

Mental health has a direct bearing on academic performance through real-life behaviour. Severe distress is often associated with maladaptive behaviours like sleep disturbance and digital addictions. Sleep disturbances such as insomnia and fragmented sleep significantly impair memory consolidation and learning efficiency, are a key factor contributing to cognitive fatigue, and can adversely affect performance (Fathima & Ahmed, 2025). Digital addictions are another major and prevalent issue. Social media addiction is problematic and is one of the most damaging variables for students' psychological well-being (Fadeyi et al., 2026). Addiction to digital platforms is a psychological stressor that leads to anxiety and emotional exhaustion, and this in turn undermines academic focus and performance (Garima et al., 2026).

Bridging the Gap: Protective Factors and Interventions

To foster both mental well-being and academic success, several psychological resources and interventions show promise. For instance, Psychological Capital and mindfulness are key personal resources that contribute to adaptive psychological functioning. Psychological Capital (PsyCap), encompassing hope, self-efficacy, optimism, and resilience, together with state mindfulness, promotes more positive evaluations of stressful experiences. Consequently, these resources reduce psychological distress and enhance academic engagement (Das et al., 2025).

Next, values affirmation (Borman, 2017), which applies to vulnerable individuals facing identity threats, involves interventions (such as reflecting on core personal values) that restore self-integrity. These interventions have been shown to buffer against social stressors, significantly decreasing anxiety and sustaining a sense of academic belonging (Shillington et al., 2026). One way to support students is by providing them with opportunities to flourish and provide social connectedness. This theoretical mechanism provides a basis for understanding how strengthening students' sense of self may mitigate the social and psychological stressors they disproportionately encounter (Shillington et al., 2026).

Cognitive rehabilitation is a type of mental training that helps improve brain function through regular practice. It is based on the idea that the brain can adapt and grow stronger over time (a phenomenon known as neural plasticity). By repeatedly practising tasks that require skills such as attention, memory, planning, and problem-solving (executive functions), the brain's prefrontal region becomes more efficient, which can lead to better thinking and overall cognitive performance (Bayrami & Dadashi Mazraeh, 2026; Karbach & Verhaeghen, 2014).

Targeted cognitive training can fortify executive functions, empowering students to manage cognitive loads more efficiently. This leads to simultaneous improvements in academic performance, emotional regulation, and creative thinking (Bayrami & Dadashi Mazraeh, 2026).

3. Methodology

This study employs a conceptual qualitative research design to examine the relationships among basic psychological factors, mental health, and academic performance among students by integrating the relevant theoretical frameworks. Rather than collecting primary empirical data, the study develops a conceptual understanding by critically synthesizing and integrating existing theoretical and empirical literature. Conceptual research is particularly valuable for advancing theory in emerging and multidisciplinary fields because it enables researchers to consolidate fragmented knowledge into coherent conceptual frameworks that can guide future empirical investigations (Meredith, 1993). Through this approach, the study identifies, analyzes and interprets the relationships among psychological factors, mental health outcomes, and academic achievement from multiple scholarly perspectives.

To promote this perspective, the study incorporates three theoretical frameworks: Self-Determination Theory, Stress and Coping Theory and Broaden-and-Build Theory. Self-Determination Theory (Deci & Ryan, 1985) is based on human motivation as it refers to the fulfilment of three fundamental psychological needs—autonomy, competence, and relatedness. When these psychological needs are met, we are more motivated, have better psychological well-being, and are more likely to remain interested in learning. In the educational context, Self-Determination Theory provides a useful behavioral perspective on the psychological needs of students that will influence motivation, emotional well-being, and academic performance (Howard et al., 2021; Guay, 2021).

Bandura and Bussey (2021) state that students develop academic competencies through self-regulatory processes, self-efficacy beliefs, and observation, which together lead to motivation, persistence, and academic performance. In line with Self-Determination Theory, Stress and Coping Theory (Lazarus & Folkman, 1984) explains how mental health is determined by one's cognitive perception of stressful situations and coping strategies to overcome them. It is believed that students' sense of stress and how they cope with it all have a significant effect on mental health (such as anxiety, depression, emotional fatigue, and psychological well-being). Good coping mechanisms can help students overcome the negative impact of academic stress, while worse coping strategies are associated with poor mental health and lower academic achievement.

In addition, the Broaden-and-Build Theory of Positive Emotions (Fredrickson, 2001) also contributes to the picture by showing that positive emotions expand people's short-term thought and action repertoire and build them up for long-term life support, social support, problem-solving and cognitive flexibility. As students feel positive emotions, they can learn other options, pursue new learning strategies, and develop stronger coping mechanisms in the event of stress (so they can cope better in the future). So these added psychological resources not only enhance psychological well-being but also academic achievement and performance. Together, Self-Determination Theory, Stress and Coping Theory, and Broaden-and-Build Theory are the foundation for understanding how supportive psychological resources help develop positive emotions, adaptability, and resilience, in the process improving students' mental health and psychological well-being. And so these positive psychological factors lead to better academic engagement and better academic achievement.

Secondary data is obtained from a wide range of publicly available and credible sources and is the focus of the study only. This research is based on peer-reviewed journal articles on educational psychology, mental health, student well-being, learning motivation, resilience, and academic performance, as well as psychological development and educational behavior books and theories on psychological development and educational behavior of students and the psychological status of children and students in education, as well as the issues of mental health, academic engagement, academic success, and outcomes. The study incorporates case studies and previous research of secondary school and university students to reveal the impact of psychological factors on academic performance. The empirical evidence is used to triangulate from various sources, using evidence from various sources to provide a more complete conceptual framework and a more detailed theoretical analysis of the research with a more complete approach and to make the theoretical framework credible and

well-founded (Bowen, 2009). We have developed a thematic approach to the literature and have identified the themes, patterns, and theoretical relationships that relate to the study, and these concepts are considered, organized in the literature, and then organized into four main themes:

- Basic Psychological Factors: This is a study of psychological aspects of students' development and their self-efficacy, self-esteem, resilience, emotional regulation, intrinsic motivation, and psychological need satisfaction.
- Mental Health and Psychological Well-being: This topic focuses on students' mental health outcomes (stress, anxiety, depression, emotional well-being, and psychological resilience) and how they are driven or inhibited by the environments that promote or hinder their happiness and well-being.
- Psychological mechanisms for the relationship between mental health and academic performance: These ideas are gathered together and relate psychological factors and academic performance, providing an account of how psychological factors (e.g., motivation, coping strategies, emotional regulation, and resilience) relate to mental health and academic outcomes in diverse educational and psychological environments. Academic performance refers to academic achievements, learning engagement, concentration, persistence, attendance, and overall educational success.

Each theme is examined by combining theoretical perspectives with empirical results from previous studies to develop a conceptual framework for the study. Not only are the results presented, but we also analyze the interplay between psychological factors, mental health, and academic performance, identifying areas of consensus and potential for future research. This conceptual approach deepens understanding of how psychological well-being supports academic success and provides a theoretical foundation for future empirical studies and evidence-based educational interventions to promote both student mental health and academic excellence. This approach offers both descriptive insights into how the domain operates in practice.

4. Findings and Discussion

This section provides the findings based on the conceptual analysis conducted to understand how the three main domains, namely basic psychology, mental health and well-being, and behavioral pathway, may have an impact on academic performance. We found that the interplay between psychology, mental health, and academic performance is highly interdependent. Basic psychological traits such as fluid intelligence, self-efficacy, and self-regulated learning provide the foundational "hardware" and strategic execution needed for academic achievement. Concurrently, a student's mental health acts as the operating environment. Psychological distress (anxiety, depression) and behavioral detriments (insomnia, excessive screen time) act as heavy cognitive loads that deplete working memory and lower grades. Conversely, positive emotional well-being, supported by psychological capital and mindfulness, broadens a student's learning capacity and fosters the academic engagement necessary to succeed despite challenges. Educational institutions are most effective when their interventions simultaneously bolster these internal psychological resources and mitigate mental health stressors. Table 1 below highlights the interplay among the elements discussed above.

Table 1: Interplay between basic psychology, mental health and academic performance

Domain	Specific Factor	Impact on Academic Performance	Findings
Basic Psychology	Cognitive Abilities	Positive predictor of GPA	Specific cognitive abilities, particularly fluid intelligence, predict unique variance in academic performance because they are crucial for complex problem-solving and abstract reasoning (Garner & Robison, 2026). General cognitive ability underlies task execution, but specific abilities drive targeted academic success (Garner & Robison, 2026).
	Personality Traits	Mixed / Context-dependent	Conscientiousness is often associated with better academic outcomes due to self-discipline, goal orientation, and persistence (Aboushawareb et al., 2026; Garner & Robison, 2026). Conversely, neuroticism predicts higher stress and vulnerability and negatively affects academic stability (Aboushawareb et al., 2026).

	Motivation and Self-Efficacy	Strong Positive driver of engagement	As a result, academic self-efficacy is a powerful predictor of college GPA and increases effort and resilience (Wang et al., 2025). Self-efficacy also serves as a buffer that partially mediates the negative impact of mental health problems (like depression) on academic performance (Arhin, 2024).
	Self-Regulated Learning (SRL) & Creativity	Positive bridge to achievement	SRL serves as a hub connecting affective strategies to academic performance (Miao et al., 2026). Creative learning strategies (which are characterized by fluency, flexibility, and usefulness) improve academic self-efficacy, which in turn enhances academic performance (Wang et al., 2025).
Mental Health & Well-being	Psychological Distress (Anxiety & Depression)	Negative detractor from performance	Anxiety is associated with low CGPAs in terms of cognitive and working memory (Hossain et al., 2025). Individuals with high emotional variability might also experience greater emotional reactivity to academic stress, in turn leading to disengagement from academic activities (Sun et al., 2026). Depression directly affects self-efficacy and performance (Arhin, 2024). Too much stress disrupts concentration and information retention (Xu et al., 2025).
	Emotional Well-being & Positive Emotions	Positive capacity builder	According to the Broaden-and-Build Theory, positive emotions (joy, hope, pride) broaden a student's cognitive flexibility, focus, and problem-solving abilities (Cherono et al., 2026). Positive emotional well-being significantly improves academic scores and motivation to learn (Cherono et al., 2026).
	Psychological Capital & Mindfulness	Protective buffer	Personal resources like psychological capital (hope, efficacy, resilience, optimism) and mindfulness reduce psychological distress by fostering positive appraisals (Das et al., 2025). They indirectly improve academic performance by sustaining high academic engagement over time (Das et al., 2025).
Behavioral Pathways	Sleep Quality & Insomnia	Negative when disrupted	Insomnia, sleep fragmentation, and night arousals are dominant predictors of academic performance decline (Fathima & Ahmed, 2025). Sleep deficits impair attention, memory consolidation, and learning efficiency, often compounding the effects of stress on performance (Fathima & Ahmed, 2025).
	Digital Addictions / Screen Time	Negative via cognitive overload	Excessive screen time and social media addiction deplete cognitive resources, trigger emotional exhaustion, and significantly increase anxiety and depression, ultimately hindering academic focus and performance (Fadeyi et al., 2026; Garima et al., 2026).

Framework Analysis and Supporting Mechanism

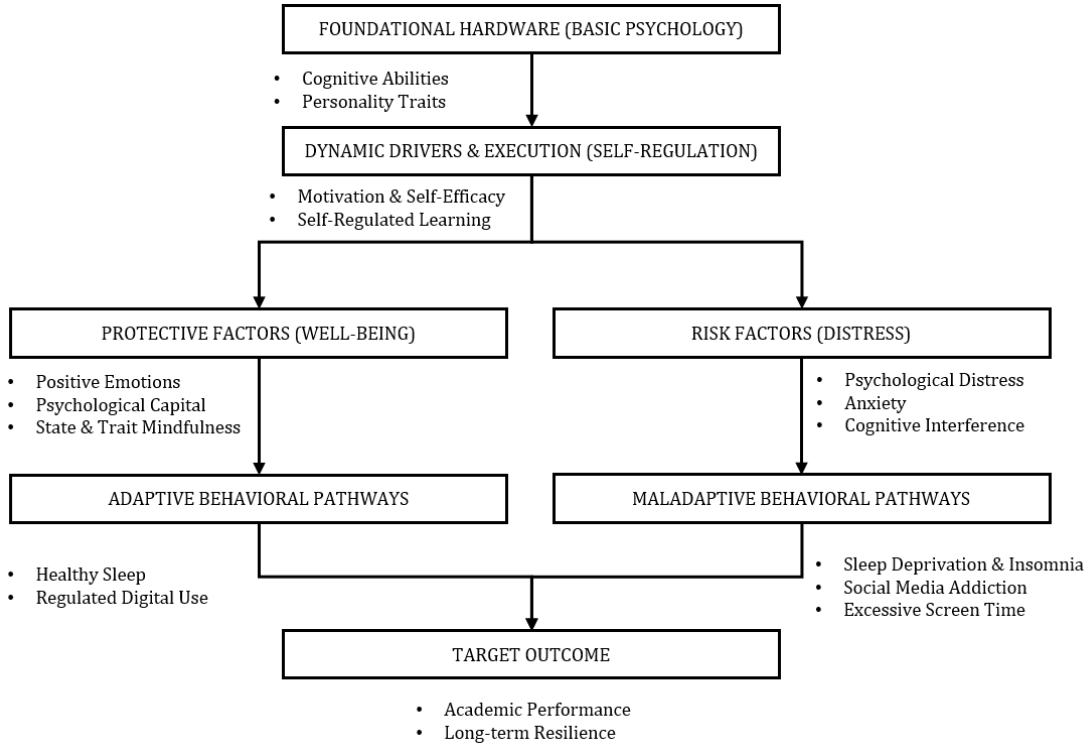
The analysis provided in the summary Table 1 above directly allows the categorization of distinct psychological and behavioral variables into a structured, sequential pathway that leads to academic performance and long-term resilience. The analysis can be divided into five main components, as shown in Figure 1 below: the foundational hardware, dynamic drivers and execution, operating environment, tangible mechanism, and target outcome. The foundational hardware captures the inherent traits analyzed in the table, such as specific cognitive abilities and personality factors that inherently shape a student's baseline capacity to learn. These foundational traits are then activated by dynamic drivers, which represent the table's analysis of motivation, self-efficacy, and self-regulated learning; this is the stage where students actively execute, monitor, adjust, and apply creative learning strategies to overcome complex academic challenges.

However, this cognitive execution is heavily moderated by the operating environment of a student's mental health. Protective factors such as psychological capital, mindfulness, and positive emotions expand cognitive

resources, enable flexible thinking, and buffer against stress, whereas risk factors such as psychological distress and anxiety consume working memory and hinder cognitive efficiency. Finally, the framework shows that these internal psychological states manifest in the physical world through tangible mechanisms or behavioral pathways, such as sleep quality and fragmentation, and the regulation of digital or social media use, which ultimately determine the target outcome of sustained academic performance.

From the perspective of foundational hardware (Basic Psychology), individual differences in academic performance are largely driven by cognitive and dispositional traits. Cognitive ability is required for solving complex situations and abstract reasoning and is a key factor in academic success (Garner & Robison, 2026). Personality traits, on the other hand, determine behavior; conscientiousness is a strong predictor of GPA because it promotes self-discipline, goal orientation, and persistence and is independent of intelligence.

Figure 1: Conceptual Framework proposed for the study



From the point of view of dynamic drivers & execution (Self-Regulation), inherent traits have to be activated by psychological drivers. Academic self-efficacy for students is students' belief in their ability to perform tasks are the driver of students' efforts to become more motivated, resilient, and persistent in the face of academic difficulties (Wang et al., 2025; Zhu, 2026). In addition, self-regulated learning is the cognitive process through which students plan, monitor, and adapt their strategies (Li et al., 2026; Miao et al., 2026). Self-regulated learning is the bridge of learning and the emotional advantage students have, and the affective strategies that can be leveraged in learning, not just how they can do well in school, and then translate that into academic achievement (Miao et al., 2026).

The Operating Environment (Mental Health & Well-being) suggests that a student's mental health is the psychological environment that either broadens or constricts their learning ability (Bayrami & Dadashi Mazraeh, 2026; Cherono et al., 2026). Protective factors (Well-being) increase the student's thought-action repertoire, cognitive flexibility, and focus (Cherono et al., 2026). Psychological Capital (hope, efficacy, resilience, and optimism) and mindfulness are internal resources that ensure positive feelings towards stressful events and help students to buffer psychological distress and remain academically engaged (Cherono et al., 2026). In addition, psychological distress, anxiety, and depression are a heavy cognitive load that reduces

working memory, attention, and executive functioning (Hossain et al., 2025; Xu et al., 2025). Chronic anxiety triggers avoidance behaviors and reduces a student's ability to engage with complex material, directly lowering cumulative GPAs (Hossain et al., 2025).

From the perspective of tangible mechanisms (Behavioral Pathways), mental health and psychological states are physically manifested through lifestyle and behavioral habits, which heavily moderate academic success (Fathima & Ahmed, 2025; Garner & Robison, 2026). Sleep deprivation, fragmentation, and insomnia are dominant predictors of cognitive fatigue and academic decline (Fathima & Ahmed, 2025). Additionally, social media addiction and excessive screen time deplete cognitive resources, trigger emotional exhaustion, and significantly increase psychological distress, which ultimately undermines academic focus (Fadeyi et al., 2026; Garima et al., 2026). Meanwhile, healthy physical habits, such as regulated sleep, proper nutrition, and physical activity, strengthen cognitive functioning and emotional regulation (Xu et al., 2025). Moderated, purpose-driven digital use can also be academically neutral or even beneficial by allowing for mental recovery and stress regulation (Fadeyi et al., 2026)

Ultimately, the target outcome (Academic Performance) is not solely the result of cognitive ability, but the culmination of a student's self-regulated efforts, supported by their mental well-being, and enacted through healthy behavioral pathways (Garner & Robison, 2026; Li et al., 2026; Zhu, 2026). Educational institutions will be most effective when they recognize this integrated framework and implement strategies to develop psychological resources, alleviate anxiety and support healthy behavior.

5. Conclusion and Recommendations

Academic performance is a complex outcome driven by an inseparable matrix of basic psychological traits and mental health states. Cognitive skills such as fluid intelligence and conscientiousness are the hardware for success; motivation, self-regulation, and strong emotional health are the operating system. Psychological distress, anxiety and behavioural harms such as insomnia sap cognitive resources and lower performance, whereas positive emotions and high self-efficacy increase learning capacity and resilience. Schools at every level need to consider these factors as part of a holistic approach that integrates mental health care, emotional regulation and psychological intervention to support students in both academic and social well-being.

The integration of basic psychology and mental health provides a holistic view of student achievement. The new evidence supports the development of the existing theoretical frameworks (e.g., Self-Determination Theory, Social Cognitive Theory, and Broaden-and-Build Theory) by showing that cognitive abilities alone do not determine academic success. The affective state, self-efficacy, and self-regulated learning act as critical mediators of learning. In addition, this integrative perspective challenges conventional thinking by showing that emotional well-being and psychological resilience are not just a product of academic success but rather are indispensable components of cognitive flexibility and problem-solving skills.

Although most existing studies provide important insights into the relationship between psychological factors, mental health, and academic performance, there are still several limitations. Most of the literature is cross-sectional, and this may limit causal interpretation (Hossain et al., 2025; Pham Thi et al., 2025; Xu et al., 2025). Also, self-report measures are frequently used, so there is a reporting bias in the way psychological states and academic performance are measured (Arhin, 2024; Bayrami & Dadashi Mazraeh, 2026). Furthermore, the findings can be based on a particular group of data that are not generalizable to the general population (Cherono et al., 2026; Das et al., 2025; Xu et al., 2025). Furthermore, the higher level of context of education (quality of education, economic status, and social class) is often not taken into account in the models.

All of these limitations underscore the need for a more holistic understanding of mental health and academic performance that considers psychological, emotional and contextual factors. Future research should be concerned with developing and testing integrated models that identify the impact of psychological, emotional and contextual factors on student mental health and academic performance. Furthermore, future research must include multiple source data (e.g., self-reports, academic records and behavioural measures) to reduce bias and improve measurement accuracy. Research in different cultural and educational contexts would be more generalizable. Finally, to understand why students' outcomes differ from those of adults in general, we need to pay more attention to the context of the students' socioeconomic status, peer impact of the school and

institutions to which they attend.

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