

ADVANCED INTERNATIONAL JOURNAL OF  
BUSINESS, ENTREPRENEURSHIP AND SMES  
(AIJBES)[www.aijbes.com](http://www.aijbes.com)FINANCIAL LITERACY AMONG SELF-EMPLOYED: INITIAL  
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**Article Info:****Article history:**

Received date: 29.01.2025

Revised date: 12.02.2025

Accepted date: 17.03.2025

Published date: 30.03.2025

**To cite this document:**Hassan, M. M., Jaafar, M. N., & Abdul Karim, N. (2025). Financial Literacy Among Self-Employed: Initial Findings. *Advanced International Journal of Business, Entrepreneurship and SMEs*, 7 (23), 198-211.

DOI: 10.35631/AIJBS.723016

This work is licensed under **CC BY 4.0****Abstract:**

This paper discusses the initial findings of financial literacy scores related to education background and financial education at the workplace among self-employed in Malaysia. The study complements knowledge of self-employed retirement planning, retirement preparedness, Islamic financial literacy, and business success. The online questionnaire that was adopted from previous literature was distributed throughout Malaysia. A total of 276 responses were received and processed for descriptive analysis. Initial findings indicated that the score differs across ethnicity and formal education attainment. While the score for those enrolling in finance and business-related courses in school, college, and university was not prominent compared with those who did not register for such classes, the increase in scoring was gradually incremental over several financial education sessions. The study implies that self-employed should pursue tertiary education after secondary school and continue attending financial education sessions at the workplace to enhance their financial literacy.

**Keywords:**

Financial Literacy; Self-employed; Education Background; Financial Education

**Introduction**

Financial literacy combines awareness, knowledge, skill, attitude and behaviour to make sound financial decisions and achieve individual financial well-being (OECD/INFE, 2012). Financial literacy is sometimes defined as a totality of dimensions focusing on various elements of financial literacy, such as money, price, budget, or debt commitment (Caplinska & Ohotina,

2019). In contrast, the lack of financial literacy or knowledge of economic concepts leads to difficulties people face when making financial decisions (Lusardi, 2009).

An indicator often associated with financial literacy is household debt and its gross national product (GDP) percentage. Table 1 indicates that Malaysian household debt reached RM1.53 trillion at the end of 2023, or 84.2 per cent of GDP (Bank Negara Malaysia, 2024). An economic expert such as Bank Muamalat Malaysia Bhd's chief economist Mr Mohd Afzanizam Abdul Rashid highlighted that the attempts to mitigate household debt should be combined synergies from financial literacy programs and efforts to control the increase in the cost of living (Poon, 2024). He further equated the circumstances to insufficient savings for later retirement (Poon, 2024). His statement is supported by Idris et al. (2018) who discovered in their study among young workers that having low money management skills caused individuals to be trapped in over-indebtedness. However, BNM Governor Datuk Abdul Rasheed Ghaffour said that although the figure of RM1.53 trillion was deemed high, the situation was under control due to a low gross impaired loan (GIL) ratio of only 1.6 per cent in which GIL refers to the ratio of banks' non-performing loans to total gross loans (Birruntha, 2024).

**Table 1: Household Debts and Percentage to Gross Domestic Product 2018-2023**

Description	Year					
	2018	2019	2020	2021	2022	2023
Household Debt (trillion RM)	1.19	1.25	1.32	1.38	1.45	1.53
Percentage of Debt to Gross Domestic Product	82.0	82.8	93.1	88.9	81.0	84.2

In Malaysia, bankruptcy among the general population can be attributed to a lack of financial literacy (Chong et al., 2020; Murthy & Mariadas, 2017) and the same can be argued for cases outside Malaysia (Lusardi & Mitchell, 2014). As of December 2023, approximately 19.4 per cent (7,279 out of 37,461) of bankruptcy cases involved individuals engaged in self-employment activities, such as business operators, self-employed and professionals (Department of Insolvency Malaysia, 2024). The report also generally showed that 19.4 per cent, or about one (1) out of five (5) of the reported cases, were from self-employed individuals.

*Agensi Kaunseling dan Pengurusan Kewangan's* (AKPK) triennial report called Financial Behaviour and State of Financial Well-being of Malaysian Working Adults (MWA) (Agensi Kaunseling dan Pengurusan Kewangan, 2018) which was derived from 3,540 working adults throughout Malaysia found that self-employed score was the lowest on the financial behaviour and self-employed's well-being is the most vulnerable compared with the other groups.

One of the typical self-employment jobs is ehauling drivers or food delivery riders with known platforms such as Grab, Food Panda, or Shoppe Food. The instant gratification of having a handsome income, in the beginning, attracts youngsters to join the forces and not consider furthering their tertiary education, as reported by a survey by a local university that 49 per cent of *Sijil Pelajaran Malaysia* (SPM) leavers or 180,680 SPM students from the 2021 school session did not plan on furthering their studies with 26 per cent of them intended to be ehauling drivers or delivery riders (The Star, 2023b). However, certain groups have disagreed with young people joining the gig economy since the career of ehauling drivers or delivery riders

persists in an infinite loop with very little chance of advancement, according to Professor Chin Yee Whah, who was a Sociology professor from Universiti Sains Malaysia (Mahavera & Khoo, 2023). He also urged the youth to enhance their skills and career-building to have a proper foundation in life. He further suggested that youth who were not academically inclined could take up skills training and earn more as they keep up with the technology. Other e-hailing drivers echoed his concerns and asserted that school leavers seek high-value and high-skilled jobs (Mahavera & Khoo, 2023).

Financial literacy among self-employed is considered substantial. Therefore, it is imperative to master financial literacy skills since earlier findings proposed that financial knowledge can enhance the business activities of self-employed (Ćumurović & Hyall, 2019). The study is also motivated to complement previous investigations on Malaysian self-employed retirement planning (Mustafa et al., 2023), retirement preparedness (Zainal Alam & Yong, 2021), Islamic financial literacy (Nik Azman et al., 2023), and business success (Ariffien et al., 2023). At a global level, several studies have been conducted on Ethiopian self-employed youth training programme influencing company performance (Melak & Derso, 2022) and on Bangladesh and Malaysia micro, small and medium-sized enterprises knowledge, socialisation agents, attitudes, awareness, and skills affecting financial literacy (Nazim et al., 2023).

Factors that can affect financial literacy in self-employed are education background and financial education. Education background or formal education during school, college, and university years is considered a platform to achieve better financial literacy. A study by Lusardi and Mitchell (2014) found that higher educational attainment results in a more positive and more significant financial literacy. Kadoya and Khan (2020) argued that education is a substantial determinant with the most direct influence on financial literacy, supported by psychological theory emphasising cognitive ability (Gill & Prowse, 2016; Lusardi et al., 2009). Similar studies by Duarte et al. (2022) in Portugal and Mohta and Shunmugasundaram (2022) supported this proposition.

Another factor that can influence financial literacy is financial education. Financial education is "any form of education provided in various settings such as high school, college and workplace" (Xiao & Porto, 2017). Financial education is a tool that aims to increase an individual's human capital, particularly their financial knowledge and application (Huston, 2010). The outcome will increase financial behaviour (Aggarwal et al., 2014; Albeedy & Gharlegghi, 2015) and financial literacy (Ambarkhane et al., 2015).

A self-employed individual is a person who gains earnings "directly from one's own business, trade or profession rather than as a specified salary or wages from an employer" (Merriam-Webster, 2024). *Lembaga Hasil Dalam Negeri Malaysia* (LHDNM) defines self-employed gains profits from carrying on a business, trade, vocation, or profession liable to tax (Lembaga Hasil Dalam Negeri Malaysia, 2024).

This paper reviews education background and financial education at the workplace with financial literacy, explains the research methodology, and discusses the initial findings and implications for self-employed, employers, education providers, and policymakers.

## Literature Review

### *Education Background*

As a variable, education background will measure the perceived behavioural control factor regarding the self-employed being financially literate. A study by Kadoya and Khan (2020) could not use the area of education in their investigation due to the non-availability of data. The authors indirectly implied that the education background is to be examined with financial literacy.

Education at the primary, secondary, and tertiary levels is anticipated to prepare the self-employed to gain some degree of financial literacy when they enter the job market as self-employed persons. Some may benefit when the financial literacy programme was launched in the selected schools (The Star, 2023a). This programme was part of the National Strategy for Financial Literacy, spearheaded by the Financial Education Network, an inter-agency group led by *Bank Negara Malaysia* and the Securities Commission Malaysia (iMoney Malaysia, 2022).

According to earlier studies, financial literacy and education background appear related. How well one has performed in tertiary education might be used to gauge one's educational background. According to Lusardi and Mitchell (2014), there are significant differences in financial literacy depending on education, with those without a college degree being significantly less likely to understand fundamental financial literacy concepts than those with one, as reported in several United States of America (USA) surveys and across countries (Lusardi & Mitchell, 2007, 2011). Additionally, people with low educational achievement have poor numeracy skills (Christelis et al., 2010; Lusardi, 2012).

In the economics literature, there has been significant disagreement over how to interpret the fact that there is a positive correlation between education and financial smartness. According to McArdle et al. (2009), one explanation for the positive link is that it may be driven by cognitive ability. The relationship suggests that one must control for measures of ability to isolate the distinct influence of financial literacy. Fortunately, the Armed Services Vocational Aptitude Battery, part of the USA's National Longitudinal Survey of Youth (NLSY), includes cognitive aptitude tests and financial literacy. Among young NLSY respondents, Lusardi et al. (2009) did discover an association between financial literacy and mental ability. Still, they also demonstrated that cognitive characteristics did not entirely explain the variation in financial literacy. In other words, even after adjusting for cognitive variables, there is still significant variation in financial literacy.

### *Financial Education*

Two forms of financial knowledge play a role in shaping financial education. The first, actual knowledge, pertains to desirable behaviours in financial decision-making. The second, perceived financial ability, reflects an individual's confidence in their financial understanding, which may lead to attempts at emulating these desirable behaviours but can result in irreversible mistakes or poor decisions (Ambarkhane et al., 2015). Financial education is essential for predicting and managing debt levels, as insufficient financial knowledge often correlates with higher debt. Many individuals fail to grasp the long-term consequences of accruing debt. For instance, a lack of personal financial education could contribute to as much

as a 59.4 per cent increase in consumer credit debt (DeLaune et al., 2010). Information disseminated by parents, schools, and media has been shown to effectively reduce credit card debt (Norvilitis & MacLean, 2010; Sohn et al., 2012). Additionally, financial education reduces the costs of accessing and processing financial information, empowering individuals to make better decisions and focus on priorities such as saving and retirement planning (Adami et al., 2018).

As a tool for social development, personal finance courses are now being incorporated into formal education systems, starting as early as kindergarten and extending through grade 12 curricula (Albeerdy & Gharleghi, 2015; Arceo-Gómez & Villagómez, 2017; Blue et al., 2014). These programs employ various training formats (Sinha et al., 2018) to build financial knowledge and management skills, preparing individuals to avoid unintended adverse outcomes in the future (Berry et al., 2018).

Financial education enhances cognitive abilities and is strongly linked to financial literacy (Berry et al., 2018; Blue et al., 2014). For example, teaching financial education to secondary school students can equip them to share this knowledge with their families (Berry et al., 2018). There is evidence of a positive correlation between financial literacy and wealth accumulation, with older adults benefiting significantly from financial education programs in optimising their post-retirement wealth (Ambarkhane et al., 2015). Moreover, interactions with bank advisors, peers, colleagues, and parents have been identified as critical influences on the financial knowledge of young individuals (Albeerdy & Gharleghi, 2015; Bönte & Filipiak, 2012; Cameron et al., 2014).

Financial education also improves financial literacy by equipping individuals with the necessary knowledge and skills to make effective financial decisions, enhancing their financial well-being and resilience in an increasingly complex financial landscape (Klapper & Lusardi, 2020; Lusardi & Messy, 2023; Lusardi & Mitchell, 2014). Workplace financial education programmes can significantly improve employee financial wellness, reducing financial stress and increasing productivity, with a return on investment that often exceeds the cost of implementation (Clark, 2023; Hasler et al., 2023; Lusardi & Messy, 2023).

Opportunities for financial education at the workplace in Malaysia for self-employed have been discussed recently by Hassan et al. (2023).

## Methodology

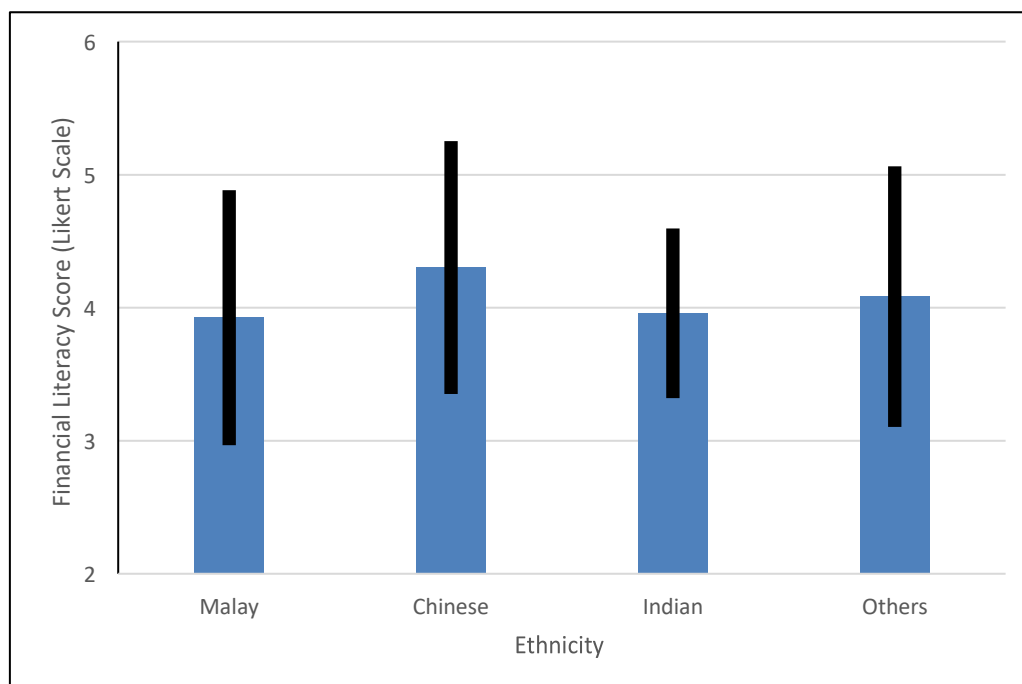
The study adopted a quantitative approach since the extent of research interference is minimal, and financial literacy is ongoing. The study setting was non-contrived, with no artificial element introduced during the research. The research strategy was a survey method using a list of questionnaires available via an online platform. The time horizon was cross-sectional, was done once, and was completed within three and a half months. Measurement was achieved by operationalising the definitions. The measure used five-point Likert scales based on previous literature. The unit of analysis was self-employed throughout Malaysia. The sampling design was purposive and non-probability, and the target sample size was 146, based on the output of the G\*Power tool (Faul et al., 2007). The number of self-employed in Malaysia was estimated to be 3.44 million as of January 2023 (Department of Statistics Malaysia, 2023).



A total of 276 samples were obtained, and double screenings were utilised. The first was to remove respondents who were not self-employed and had not attended financial education sessions at the workplace. The second screening was to remove those who answered zero financial education session at the demographic question since they were considered unqualified respondents. The respondents were specified to have attended at least one session. After removing responses found to have straight-lining in answering the survey, 195 samples were deemed useable for a descriptive analysis, resulting in a 70.6% response rate. The financial literacy score was calculated by averaging the Likert points per Kenayathulla et al. (2020) and Wan Jusoh and Mohd Yusdi (2022).

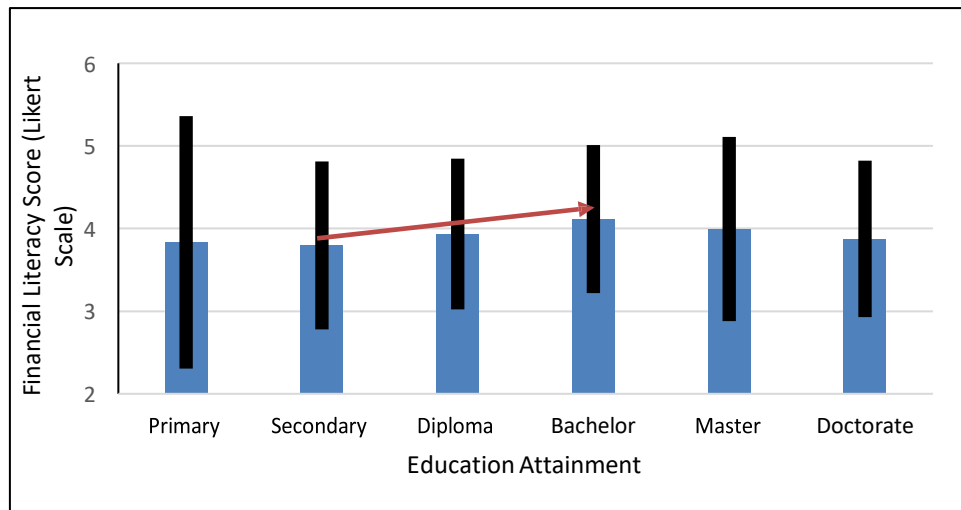
### Findings and Discussion

The first finding is that the ethnic Chinese were found to have better financial literacy scores than the other ethnicities. As shown in Figure 1, Chinese respondents scored the highest, Malay scored the lowest, and the rest were in between. The finding is consistent with Wee and Goy (2022) who discovered that Chinese students scored higher in financial knowledge among first-year university students in Sarawak. This result was anticipated (Sabri et al., 2012) since earlier investigations have demonstrated that Chinese students possess higher mathematical achievement (Ismail & Awang, 2008) and that they understand more about educational loans (Abu Bakar et al., 2006).



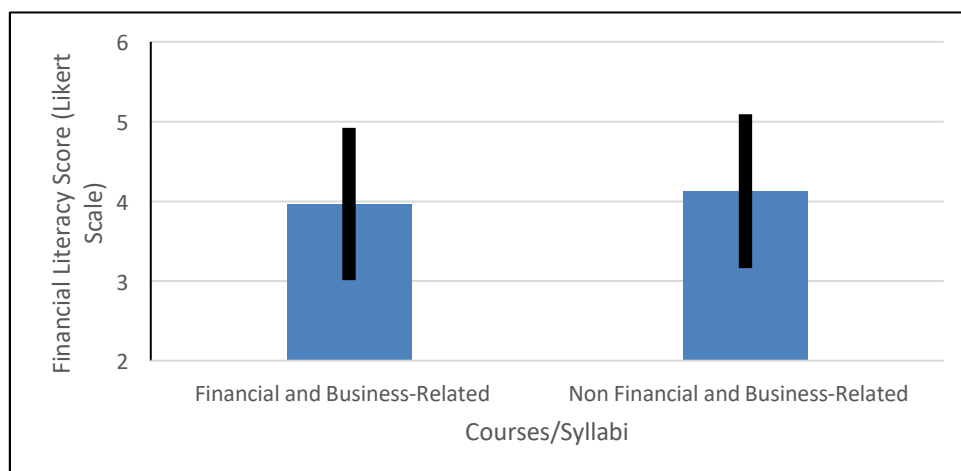
**Figure 1: Financial Literacy Score by Ethnicities**

The second finding is that the higher education attainment for self-employed individuals, the higher their financial literacy score. Figure 2 indicates that the improvement is realised from secondary school to a bachelor's degree, while the score decreases between master's and doctoral degrees. The result is consistent with an earlier investigation by Lusardi and Mitchell (2014) who reported that education attainment affects financial literacy among American adults. The finding also suggests that SPM leavers should pursue tertiary education after secondary school studies.



**Figure 2: Financial Literacy Score by Education Attainments**

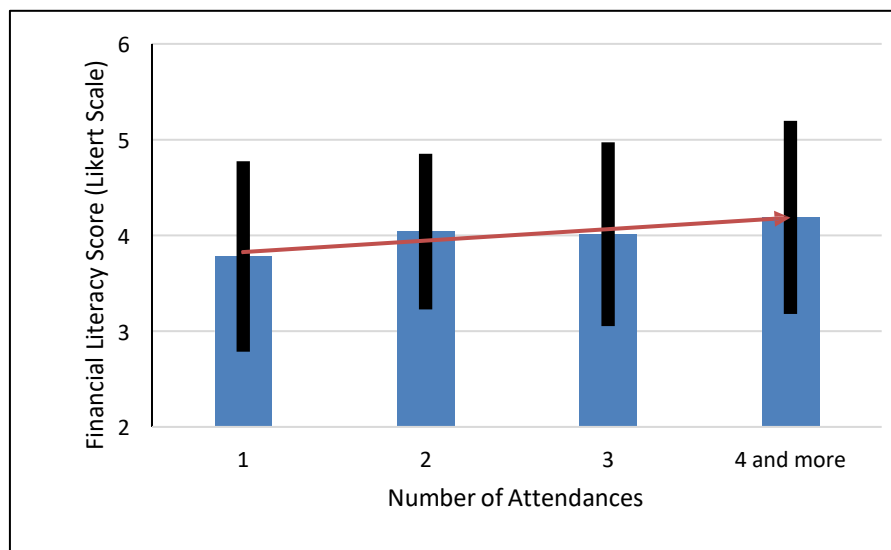
The third finding is that self-employed people who attended financial or business-related courses or syllabi at school, college, and university did not achieve better financial literacy scores than those who did not participate in such classes, as shown in Figure 3. This finding contradicts Ghazali et al. (2017) who studied financial literacy among high school students in Raub, Pahang. The contradiction may be due to a more substantial influence of financial education sessions at the workplace than those previously learned at school, college, and university. This finding may also suggest that financial education at the workplace is more effective in preparing for self-employed financial literacy. In addition, most finance and business curricula prioritise theoretical knowledge, such as market analysis, corporate finance, or economic models, rather than practical financial skills like budgeting, saving, or understanding debt. As a result, students may gain knowledge about high-level financial systems but lack the tools to manage their finances effectively. The contradiction has been discussed earlier by Gale and Levine (2010) who stated that there was no impact of the financial education mandates on household saving behaviour, and they further concluded that curriculum mandates are not generally associated with higher scores in students' financial knowledge.



**Figure 3: Financial Literacy Score between Attending Financial and Business-Related Courses or Syllabi**

The last finding is that the higher the number of financial education attendances, the higher the financial literacy score, as shown in Figure 4. The result is consistent with the investigation by Shim et al. (2010) suggesting that first-year university students who attended more classes and financial workshops reported higher levels of financial knowledge. The finding suggests that self-employed individuals should participate in multiple financial education sessions to gain more knowledge and improve their financial literacy.

Multiple financial sessions may require the collaboration of several parties, such as financial institutions, government agencies, education providers, and policymakers, to formulate a practical financial education programme to enable attendance systematically and to measure the programme's effectiveness and participants' financial scores.



**Figure 4: Financial Literacy Score by the Number of Financial Education Attendances**

A study is considered the first investigation that focussed on financial literacy among self-employed throughout Malaysia. Generally, the findings were consistent with the previous investigations that have studied different cohorts.

The study suggests that efforts should be focused on ethnic groups who are behind to enhance their financial literacy scores and catch up. Also, the study implies that SPM leavers should continue tertiary education to improve their financial literacy scores and well-being. The knowledge gained by self-employed individuals in enrolling in financial and business-related courses and syllabi at school, college, and university indicated a minimal difference in financial literacy scores compared to those who did not attend. Self-employed personnel are advised to undertake financial education sessions at the workplace since the finding illustrated that a higher number of attendances increases the financial literacy score. Employers should also provide every opportunity to make financial education sessions accessible to their contracted self-employed by arranging in-house training, partnering with external education providers, or incentivising self-employed to attend with established education providers.

Financial education providers should also know that the syllabus should be tailored to suit participants' ethnicity, education background, and the number of previous attendances. Policymakers are recommended to lead the efforts to coordinate the development and review



of financial education contents and instructors' qualifications to ensure that the intervention to increase financial literacy scores is effective and provides long-lasting results.

The study is limited to the self-employed who participated in the online questionnaire at the time of the survey. In addition, the analysis included only those who had attended at least one financial education session, per the respondent's specifications. The responses from the states of Kelantan, Perlis, and Sarawak were unavailable for analysis. As such, the findings and results are unsuitable to generalise to the self-employed group in Malaysia. Furthermore, it is also suggested that qualitative studies by interviews be conducted to assess if other factors can affect self-employed financial literacy scores.

### Conclusions

The findings of this study underscore the multifaceted factors influencing financial literacy among self-employed individuals in Malaysia. Ethnicity emerged as a significant variable, with Chinese participants demonstrating higher financial literacy scores than the other groups. Educational attainment was also positively correlated with financial literacy, although diminishing returns were observed at higher academic levels. Notably, enrolling in finance or business-related courses during formal education did not substantially enhance financial literacy compared to those who did not take such courses. The finding suggests that workplace financial education sessions offer more practical and impactful learning opportunities.

Furthermore, the study highlights the importance of continued financial education for self-employed individuals to improve their financial literacy and decision-making skills. Targeted efforts to address disparities among ethnic groups and encourage tertiary education for school leavers are recommended to enhance overall financial literacy. The study's limitations, such as its reliance on self-reported data and a cross-sectional design, the inclusion of respondents who had attended financial education sessions, and the lack of responses from specific states, suggest that future research should explore qualitative methods to identify additional influencing factors.

This research contributes valuable insights into the financial behaviour of self-employed individuals, advocating for structured financial education initiatives that prioritise practical skills applicable to real-world contexts.

### Acknowledgement

This research was not funded by any grant.

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