Financial Literacy And Financial Behaviour: An Overview of Key Drivers

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Abstract. This paper aims to review previous studies related to financial literacy and propose a model for predicting financial literacy among adults in Malaysia. Literature review **.** A model to predict financial literacy among adults in Malaysia. Among the key drivers are financial education, financial socialisation and financial experience elements. This paper is based on a literature review, and no statistical analysis was performed to validate the proposed model. The model will be used to assess the financial literacy level of Malaysian households and examine its relationship with their important economic behaviours.

Keywords: Financial Literacy; Key Drivers; Financial Socialisation

1 Introduction

Recent studies have documented concerns about financial literacy, demonstrating that both young and older adults lack the basic knowledge needed to make good financial choices. For instance, household debt in Malaysia in 2018 stood at 82 per cent of gross domestic product, higher than high-income nations, such as Japan (58 per cent), Italy (40 per cent) and the United States (76 per cent). Moreover, according to Credit Counselling and Debt Management Agency (AKPK) survey in 2018, only 24 per cent could survive up to three months with their savings, and only 10 per cent could remain unemployed within six months (Agensi Kaunseling dan Pengurusan Kredit, 2018). Additionally, the survey made by AKPK in 2018 revealed that fifty per cent of Malaysians admitted to having difficulties raising RM1, 000 for emergencies. One in five working adults said they did not make any savings in the past six months, while three in 10 individuals have to borrow money to buy basic needs. Many are burdened with huge debts, with thousands have been declared bankrupt. In order to address the rising issue of household debt, the government has initiated the National Strategy for Financial Literacy 2019–2023—a five-year plan that aims to raise the country's poor financial literacy, which the 8th prime minister officially launched on July 23, 2019.

Financial education and literacy are often seen as catalysts for financial inclusion, owing to their ability to empower consumers to make informed financial decisions that can dramatically impact the financial well-being of individuals and society. However, according to studies by the OECD international network of financial education, AKPK, and the Malaysian financial planning council between 2015 and 2018, the financial literacy level among Malaysians has

ICSST 2021, November 25, Tangerang, Indonesia
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DOI 10.4108/eai.25-11-2021.2319348

yet to reach a satisfactory standard. This paper aims to review previous studies related to financial literacy and propose a model for predicting financial literacy among adults in Malaysia. The discussion is centred on the key drivers that could affect the financial literacy level. The model will assess the financial literacy level of Malaysian households and examine its relationship with their important economic behaviours. The following section defines financial literacy and the methods used to determine individuals' degree of financial literacy. The discussion then deliberates the three major drivers of financial literacy and the relationship between financial literacy and financial behaviour. The model proposed to investigate factors of financial literacy level is presented in the subsequent section. Finally, the limitations and future research directions are presented.

2 Results and Duscussion

2.1 Financial Literacy and Its Measurement

OECD (2020) define financial literacy as "a combination of awareness, knowledge, skills, attitudes and behaviour necessary to make sound financial decisions and ultimately achieve individual financial well-being". Different scholars define financial literacy differently. Generally, there are two vital elements of financial literacy definition. The first element comprises the possession of relevant financial information, known as knowledge and skills (Ananda & Mikhratunnisa, 2020; Bawre & Kar, 2019; Henager & Cude, 2016; OECD, 2020; PIDM, 2020; Thomas & Subhashree, 2020). Among the relevant financial information individuals need to have are 1) basic numeracy knowledge; 2) knowledge related to fundamental economic concepts (interest rate, inflation); and 3) risk diversification knowledge (Lusardi & Mitchell, 2008). In addition, other pertinent financial information required is related to saving, borrowing, insurance, and investment (Akben-Selcuk, 2015; Chen & Volpe, 1998; Oseifuah et al., 2018). Thus, the survey to measure an individual financial literacy level comprises questions related to all this financial information. Additionally, PIDM (2020) and Thomas and Subhashree (2020) added "confidence" as part of their definition of financial literacy. The second element financial literacy definition is the ability of a person to use the financial knowledge, skills, and confidence to make informed financial decisions (Ananda & Mikhratunnisa, 2020; Bawre & Kar, 2019; Henager & Cude, 2016; Lusardi & Mitchell, 2014; PIDM, 2020). Nevertheless, mere possession of the relevant financial information is not sufficient to make individuals financially literate. Instead, they should be able to internalise their knowledge and skills in making financial-related decisions.

The research related to financial literacy has attracted aplenty of scholars around the world, resulting in various approaches used to measure financial literacy. The financial literacy level can be measured using three different approaches: 1) Objective measures, 2) Subjective measures, 3) A combination of objective and subjective measures. An earlier study by Chen and Volpe (1998) used objective measures of financial literacy to measure the actual knowledge related to financial literacy, such as savings, borrowing, insurance, and investment. Various recent studies have adopted their measures, such as Lantara and Kartini (2015) and Akben-Selcuk (2015). Similarly, Lusardi and Mitchell (2008) also utilised objective measures. Three questions were used to measure the financial literacy level that encompasses fundamental economic concepts (interest rate and inflation), basic numeracy, and risk diversification. These are widely known as the "Big Three" financial literacy questions. Philippas and Avdoulas (2020) also used similar measures but added two questions related to

numeracy and compound interest. Meanwhile, van Rooij et al. (2011) included advanced financial knowledge to measure financial literacy, including knowledge related to the capital market, such as stocks and bonds. The second approach used subjective measures to measure financial literacy. Respondents are required to self-rate their financial knowledge (Kenayathulla et al., 2020; Mien & Thao, 2015; Perry & Morris, 2005). Among the questions asked are whether the respondents agree with statements related to borrowing or investment. Thus, the ratings reflect the respondents' confidence in the statements about financial knowledge. The third approach combines objective and subjective measures (Allgood & Walstad, 2013; Ameer & Khan, 2020; Asaad, 2015; Nye & Hillyard, 2013). It is argued that the combination of both measures provides a comprehensive measurement of the individuals' financial literacy levels. The objective measures are referred to as actual literacy (Allgood & Walstad, 2013) or financial knowledge (Asaad, 2015), while the subjective measures are perceived literacy (Allgood & Walstad, 2013) or financial confidence (Ameer & Khan, 2020; Asaad, 2015).

2.2 Key Drivers of Financial Literacy Level

The importance of financial knowledge is indisputable due to its ability to influence how individuals are making financial decisions. Therefore, it is ideal to have an adequate level of financial literacy to ensure a sound financial decision is made. Research related to determinants of financial literacy level has attracted many scholars attempting to identify the key drivers that could increase financial literacy levels. Consequently, suggestions have been made to execute the intervention programme related to the key drivers identified. Based on the definition of financial literacy, it is quite conclusive that the knowledge or skills are related to relevant financial information; thus, it is fair to assert that knowledge could generally be imparted through education, either formally or informally. Therefore, formal financial education and informal education through financial socialisation are important key drivers of financial literacy. Additionally, Loh et al. (2021) claimed that education and experience must be integrated to serve as a strong foundation of financial literacy. Thus, financial experience is also considered an important key driver of financial literacy. The following section discusses the three key drivers of financial literacy: 1) Financial Education, 2) Financial Socialisation, and 3) Financial Experience.

2.2.1 Financial Education

Widyastuti et al. (2020b) define financial education as "a process to improve people's understanding about the financial concept and products or even develop skill through information they got" (p.2719). Meanwhile, Lusardi (2019) suggests that financial education is vital to increasing financial literacy. One of the targeted places Lusardi (2019) proposed for providing financial education is the schools, indicating that it could be a formal educational institution or any organisation providing financial courses. There is conclusive evidence from previous studies that the educational background of individuals could affect the financial literacy level. Among the field of studies deemed a good foundation for financial literacy are business (Chen & Volpe, 1998; Ghazali et al., 2017; Lantara & Kartini, 2015; SARIGÜL, 2014; Yew et al., 2017), economic (Ameer & Khan, 2020; Karaa & Kuğu, 2016; Migliavacca, 2019; Nikonova et al., 2018; SARIGÜL, 2014; Yew et al., 2017), finance (Ameer & Khan, 2020; Yew et al., 2017) and accounting (Yew et al., 2017).

Previous studies raised various reasons for individuals from the four fields to have higher financial literacy levels compared to other fields. The majority of the studies used university students as respondents. For example, an earlier study by Chen and Volpe (1998) surveyed 924 college students in the United States and reported that business majors are more knowledgeable financially than non-business majors because business majors' students were typically exposed to finance-related courses. Similar arguments are set forth by later studies by Ansong and Gyensare (2012), Lantara and Kartini (2015), Karaa and Kuğu (2016), and Yew et al. (2017). Some studies used school students as respondents. For example, Ghazali et al. (2017), who used high school students aged 18 to 19 in Malaysia, reported a significant difference between financial literacy scores of students with a business background (52.09) and non-business background (45.94). Their study concluded that students with a business background were exposed to financial management concepts; hence, improving their understanding of financial literacy issues.

Likewise, Ameer and Khan (2020) surveyed adult participants aged 18 years and above in New Zealand also reported a higher financial literacy level among respondents with educational backgrounds in finance and economics. Their respondents' backgrounds ranged from professionals, retirees, students (postgraduate and undergraduate), workers, and parents. Similarly, Migliavacca (2019) reveal that bank clients from all age group holding economic or finance degrees have significantly higher financial literacy level than non-economic degrees. Therefore, the tertiary education subjects could affect individuals' financial literacy levels. Besides finance-related fields at the tertiary education level, financial education could also be taught by attending any finance-related short course. Similar to the field of study at the tertiary education level, finance-related short courses are expected to familiarise individuals with finance and business knowledge that could ultimately improve their financial literacy levels (Md.Sapir & Wan Ahmad, 2020). Among the examples of finance-related short courses are the "Managing Your Personal Finance" course (Gerrans & Heaney, 2019), "Personal Financial Training" (Ameer & Khan, 2020) and "Muamalat-related" course (Md.Sapir & Wan Ahmad, 2020). All these studies reported a significant positive impact of finance-related courses towards improving individuals' financial literacy levels.

In contrast, some studies reported insignificant effects of finance-related courses on financial literacy (Loh et al., 2021; Widyastuti et al., 2020). For instance, Widyastuti et al. (2020) distributed a survey to school teachers in Indonesia and reported an insignificant effect of such financial education on financial literacy. Similarly, Loh et al. (2021) surveyed 150 workers in Malaysian accounting firms aged between 18–35 years old. They hypothesised a positive effect of finance-related courses on financial literacy because they claimed it could influence individuals' cognitive ability. However, the results indicated that the effect of finance-related courses on financial literacy level was insignificant. They posited that the insignificant result might be due to the youths' insufficient experience managing finance-related matters. Despite the inconsequential result, Loh et al. (2021) unwaveringly emphasised the importance of financial education by suggesting such programmes to be administered at all levels of education with government support. In conclusion, financial education, whether a study field during tertiary education level or finance-related short courses, is an important key driver of individuals' financial literacy.

2.2.2 Financial Socialisation

Aside from formal financial education, individuals could acquire finance-related knowledge informally via interaction with the environment. Social Learning Theory provides

the foundation for this argument (Jorgensen, 2007). The notion suggests that learning may occur in any setting where individuals spend the most time (peers or social media) or at a young age (parents and family). Acquiring financial-related knowledge through individuals' socialisation process with parents, family, peers or social media is known as financial socialisation. Ameer and Khan (2020) define financial socialisation as "a process by which individuals not only acquire theoretical knowledge of financial matters but also learn attitudes and behaviours affecting their financial behaviour" (p.2). Parents, family, friends, and social media are seen as key social agents capable of imparting financial information and increasing individuals' financial literacy levels. The following section goes through past research on the influence of various social agents on individuals' financial literacy levels.

a) Parents/Family Socialisation

Jorgensen (2007) reported that students with higher financial literacy levels learned about money management skills from parents. The researcher claimed that parents are one of the key social agents interacting with the children and could ultimately influence the children's level of financial literacy. This is because parents would shape the children environment in their early years of life. Therefore, any form of interaction between parents and children, including financial skills or knowledge, would be informally imparted. The interaction could be in the form of financial experience sharing (Putri et al., 2020), discussion on financial aspects (Putri et al., 2020; Sabri et al., 2010), direct teaching effort (Shim et al., 2010) or financial monitoring of the children (Putri et al., 2020). All these interactions are considered parental financial socialisation. The significant positive impact of parental financial socialisation on the level of financial literacy has been reported by many studies (Alekam et al., 2018; Putri et al., 2020; Sabri et al., 2010; Shim et al., 2010). Additionally, self-rating by respondents indicated that the highest sources of financial literacy are parents and life experience (Yew et al., 2017).

In addition, family is deemed as important as parents with regard to being the social agents in financial socialisation. For example, Hayei and Khalid (2019) argued that discussions among family members regarding daily financial decisions help inculcate a good money habit in children. Alekam et al. (2018) and Thomas and Subhashree (2020) also reported a significant positive relationship between family influence and the level of financial literacy. On the other hand, Sharif et al. (2020) reveal a negative impact of parental financial socialisation on financial literacy. However, the result is true for male respondents only. Sharif et al. (2020) posited that the negative effect is due to the characteristics of male respondents; they are defensive and would act in contradiction with their parent's expectations. Male respondents were also seen as risk-takers, which explains why they would not follow their parents' advice and act contradictorily.

Another study also found no significant effect of parental financial socialisation on the level of financial literacy (Amagir et al., 2020). Amagir et al. (2020) argued that parental financial socialisation would affect financial attitude and behaviour instead of financial literacy levels. In the same vein, Ameer and Khan (2020) also reported that the effect of a family as financial socialisation agent is insignificant. While reporting a negative effect of parental financial socialisation on male respondents' financial literacy, Sharif et al. (2020) also reveal that the effect on female respondents was insignificant. The negative and insignificant association between family or parents' socialisation and financial literacy could be attributed to the parents' education levels. Ansong and Gyensare (2012) claimed that an "educogenic" household (one in which both parents are educated) would inevitably urge their kids to follow in their parents' footsteps. Accordingly, it is expected that the higher the parents' educational

level, the more educated their kids are likely to be in financial matters. The majority of studies (Amagir et al., 2020; Ansong & Gyensare, 2012; Ibrahim et al., 2009) affirm that the mothers' education levels positively influenced the financial literacy of individuals. Meanwhile, Philippas and Avdoulas (2020) found that individuals whose fathers hold an MS/PhD degree are more likely to report higher levels of financial literacy than those whose fathers lack education.

b) Peer Socialisation

Besides parents and family, interactions with peers, including workplace colleagues, could also result in financial socialisation. Most related studies focused on students as respondents (Thomas & Subhashree, 2020; Md. Sapir & Wan Ahmad, 2020; Amagir et al., 2020; Jorgensen, 2007). However, there is no conclusive evidence regarding the direction of peers' impact on financial literacy level. For example, Thomas and Subhashree (2020) argued that college students and youngsters spent more time with their friends, providing a conducive environment for increasing financial literacy. Their argument was validated by a significant positive effect of peer socialisation on financial literacy levels reported in their study. Similarly, Md. Sapir and Wan Ahmad (2020) interviewed Malaysian Muslim students and concluded that peers' financial socialisation could occur through religious, educational activities known as "*usrah*".

In contrast, Amagir et al. (2020) and Jorgensen (2007) found no significant relationship between peer socialisation and financial literacy level. Although Thomas and Subhashree (2020) suggested that individuals spent most of their time with peers, Jorgensen (2007) asserted that interactions with parents exceeded interactions with peers. This is due to the development of information technology where students can easily connect and interact with parents via smartphone. Additionally, Jorgensen (2007) reasoned interactions with peers are limited compared to exchanges with parents at home. With the current situation of the Covid-19 pandemic that forces individuals to spend most of their time at home and less time with peers, it is interesting to examine if peer socialisation could still affect individuals' financial literacy levels. Apart from research on the impact of peers' financial socialisation on students' financial literacy level, several studies involved adult respondents. For example, Sabri and Aw (2019) conducted a study on Malaysian aged 15 to 64 years old, which found peers' financial socialisation had a detrimental impact on financial literacy. They stated that interacting with peers might lead to the transmission of biased, inaccurate, and incomplete information. Thus, they reported a negative effect of peers' financial socialisation on financial literacy levels. Meanwhile, Ameer and Khan (2020) found that peers' financial socialisation is not linked to greater financial literacy levels.

c) Media Exposure

Individuals are increasingly adopting social media in their daily lives these days. In addition, social media usage has risen dramatically because of the mobility limitations caused by the Covid-19 pandemic. As a result, social media has become an essential tool for connecting with family and friends and other purposes to limit direct contact and ensure social distancing. One of the purposes of social media is for financial reasons, which is deemed an important environment to learn about financial management. Numerous scholars have studied the influence of social media on financial literacy, but the results were mixed, and no conclusive evidence was found. Karaa and Kuğu (2016) found a beneficial effect of social

media on financial literacy among Turkish university students. Their findings suggested that using social media to follow prominent economist pages might help enhance advanced financial literacy skills. In contrast, Sabri and Aw (2019) reveal a detrimental impact of social media on financial literacy. They stated that using social media as a social agent for learning financial management is ineffective due to the lack of engagement as social media only involves one-way communication. As a result, it does not provide an engaging learning environment for financial management.

Meanwhile, several studies found no significant relationship between social media and financial literacy (Ameer & Khan, 2020; Bawre & Kar, 2019; Ansong & Gyensare, 2012). An insignificant finding suggested that it might be due to the instrument employed, which solely measures the social media variable in relation to media access (Ansong & Gyensare, 2012). Access to the media itself could not result in any significant impact as information accessed might not necessarily be financial-related. A later study reported social media is used by only 14.6 per cent of respondents for investment-related information (Bawre & Kar, 2019). The study concluded that adults over 18 years old prefer to acquire financial advice from their friends and relatives (Bawre & Kar, 2019). Overall, if the present scenario of the Covid-19 pandemic persists, the value of social media as a source of financial knowledge would be indisputable.

2.2.3 Financial Experience

As previously stated, integrating financial knowledge and financial experience is critical for individuals to have a solid financial literacy foundation (Loh et al., 2021). Financial experience may include, but is not limited to, the use of financial products or services. Loh et al. (2021) stated that when individuals have access to financial products or services, they will gain financial knowledge, improving their financial literacy levels. Meanwhile, Oseifuah et al. (2018) considered money handling experience as financial experience. Their research found that financial experience had a substantial beneficial influence on financial literacy level. They also argued that handling money requires a wide range of financial knowledge, for example, budgeting and investment expertise. Furthermore, financial experience is typically associated with working experience since individuals would procure a salary (money) that must be managed. Evidently, a few studies reported a significant positive impact of working experience on the level of financial knowledge (Chen & Volpe, 1998; Yew et al., 2017).

Aside from working experience, numerous demographics characteristics could also be related to financial experience. Firstly, the age of individuals. A previous study reported an association between age and financial knowledge claimed that individuals are not more literate merely because of their age but due to the exposure to personal finance knowledge (Chen & Volpe, 1998). This indicates that financial experience gained as individuals grew older through personal financial skills exposure could increase financial literacy. Correspondingly, Ansong and Gyensare (2012) concluded that the increase in age and financial knowledge could be attributed to practical life experience, including financial experience. Thabet et al. (2019) contended that financial obligations of the elderly, such as pension funds, have a substantial influence on financial literacy level. In addition, financial experience in administering the fund would result in individuals' better financial literacy. This is also true for married people who must develop financial skills to prepare for their children's education.

Secondly, another demographic characteristic that could be related to financial experience is gender. It is quite conclusive that previous studies found males are more literate than females (Bawre & Kar, 2019; Mottola, 2013; Kadoya & Khan, 2020; Oseifuah et al., 2018;

Ansong & Gyensare, 2012). One possible explanation is that males are typically the primary decision-maker in a household, including financial-related matters (Ansong & Gyensare, 2012; Kadoya & Khan, 2020; Oseifuah et al., 2018). As a result, males have better financial experience managing household finances, eventually improving their financial literacy levels.

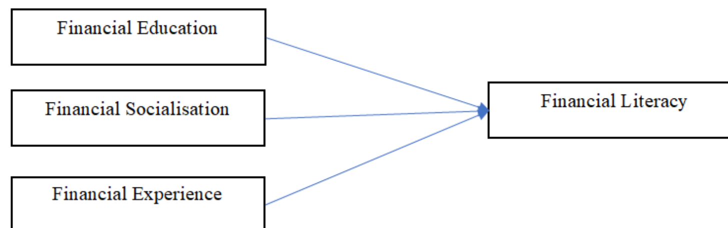
The third demographic characteristic is the socioeconomic status of a family. There are opposing opinions on how a family's economic situation may impact a person, but both are related to financial experience. For example, Oseifuah et al. (2018) posited that a favourable economic position, such as having a high income, might lead to individuals learning more about financial management skills, such as saving or investing. In contrast, Ergün (2017) asserted that individuals facing financial difficulties would be encouraged to manage their existing funds effectively through budgeting or spending management. Both arguments imply that individuals' socioeconomic status would enhance their financial experience through financial management. This might eventually enhance individuals' financial literacy. To summarise, financial experience is imperative in improving individuals' financial literacy level since it complements the financial knowledge and skills acquired via financial education. It would be intriguing to investigate if all three main factors (financial education, financial socialisation, and financial experience) may influence financial literacy levels. Such studies are crucial because intervention could be carried out through these three major factors to ensure individuals' higher degree of financial literacy. Finally, it is anticipated that financially literate individuals would engage in sound financial behaviour. The following section reviews past studies on the relationships between financial literacy and financial behaviour.

2.3 Financial Literacy and Financial Behavior

Lusardi (2019) explained that ineffective spending and financial planning, as well as expensive borrowing and debt management, are associated with low levels of financial literacy across countries. Numerous studies have been conducted to determine the association between financial literacy and financial behaviour. Generally, there is conclusive evidence that a sound financial literacy level could result in good financial behaviour. For instance, Allgood and Walstad (2013) examined adults over the age of 18 in the United States and found that a high degree of financial literacy led to favourable credit card behaviour. Later investigations also showed similar findings (Ananda & Mikhratunnisa, 2020; Chong et al., 2021; Henager & Cude, 2016; Widyastuti et al., 2020). Ananda and Mikhratunnisa (2020) suggested that individuals with excellent financial knowledge may plan and manage their money to make sound financial decisions and achieve financial goals. Furthermore, Chong et al. (2021) asserted that a lack of financial understanding or financial illiteracy is the main cause of negative financial conduct.

2.4 Model Proposition

Based on the literature review, there are three main key drivers of financial literacy: financial education, financial socialisation, and financial experience. Therefore, the following model is proposed to examine the determinants of financial literacy level.



3 Conclusion

This study examines previous research on financial literacy, key drivers, and financial behaviour conducted by other researchers. Next, a model for examining the factors influencing financial literacy is presented. Finally, further research might be carried out to experimentally test the suggested model for validity.

Acknowledgement

The authors would like to express their gratitude and appreciation for the assistance provided by the Faculty of Accountancy, Universiti Teknologi MARA (UiTM) Dana Dalaman Fakulti (DDF), Grant No: 600-TNCPI 5/3/DDF (AKAUN) (005/2020) for this research.

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