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RESEARCH ARTICLE

EXAMINING FACTORS OF SAVINGS BEHAVIOUR AMONG MALAYSIAN YOUTH

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ABSTRACT - The study's primary purpose is to investigate the effect of financial literacy, attitude, subjective norms (peer influence), perceived behavioural control (self-efficacy), and savings intention in determining the savings behaviour among Malaysian youth. A framework was developed based on the Theory of Planned Behaviour (TPB) to address this prerequisite. A quantitative method was employed where data for this research have been carried out by survey approach targeted to youth aged 18-40. Based on snowball sampling, 384 usable questionnaires were returned. The hypotheses of the research were tested using PLS analysis. In detail, the survey results supported the 5 main hypotheses. This study evidenced that financial literacy, attitude, subjective norms (peer influence), and savings intention should be implemented to achieve the savings behaviour of youth. However, perceived behavioural control (self-efficacy) was found to be less likely affecting the savings behaviour among Malaysian youth. Additionally, the result of mediation analysis shows that the savings intention has an indirect effect on the savings behaviour. The study was conducted only in Malaysia, so the results may not be applicable to different cultures. The study's outcome offered theoretical and practical contributions that help academicians and practitioners understand the savings behaviour of youth. Retail banks could promote financial services or products to urge youth to save and policymakers could develop effective education programs and encourage practice of good integrity to improve youth's financial knowledge. The study's findings provided evidence that financial literacy, attitude, subjective norms (peer influence), perceived behavioural control (self-efficacy), and savings intention have a significant effect on the savings behaviour of youth.

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INTRODUCTION

Savings behaviour plays a crucial role in shaping social well-being and offers a proactive approach to addressing future financial challenges (Dangol & Maharjan, 2018). Saving helps every individual to meet future personal and family needs. However, in recent years, Malaysia has witnessed a decline in its savings rate. According to data from the World Bank, Malaysia's gross domestic savings (% of GDP) experienced a decrease from 2017 to 2020, from 32.42% to 26.17%, with a difference of 6.25%. Savings positively affect the economy, as funds in financial assets fund investments through financial intermediaries (Kowhakul, 2016). High savings also protect countries from recessions and financial crises (Peiris, 2021). Today, access to credit cards and mortgages has become readily available, contributing to the emergence of a debt culture among young people and detrimental to their financial planning for future emergencies (Lee et al., 2019). According to the Malaysia Department of Insolvency (MDI), 59,974 people were declared bankrupt from 2017 to October 2021. In 2021, 4,863 bankruptcy cases were recorded, including 17 cases (ages under 25), 750 cases (ages 25-34), 1,881 cases (ages 35-44), 1,324 (ages 45-54), 839 cases (ages above 55), and 12 cases (not identified). The research on savings behaviour is quite favourable to many Malaysian scholars (Tan et al., 2019; Kamarudin & Hashim, 2018; Sabri & Juen, 2014).

In 2020, a study conducted by the Credit Counselling and Debt Management Agency (AKPK) revealed that the financial burden of Malaysians had escalated by about 35% since the pandemic began in the country last year. Moreover, AKPK (2018) revealed that an average of three out of ten or 28% of Malaysians borrow money from financial institutions to buy essential goods, which leads to high indebtedness. Besides, almost half of the respondents said they could not afford to purchase what they wanted. In addition, it has been revealed that Malaysians possess an insufficient grasp of financial literacy. Consequently, financial illiteracy and a lack of knowledge hinder individuals from cultivating good savings habits.

According to the AKPK Financial Behaviour Survey, half of Malaysians admitted that they had difficulty raising RM1,000 for emergencies. Only two-thirds of adults could fund RM1,000 in emergencies, while 36% of respondents could not. According to the age group, people aged 30-39 have the least ability to pay for emergency and medical bills. ICAEW (2007) reported that integrity is a crucial principle that shapes an individual's development and guides their

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judgments, decisions, and behaviour. Hence, to act, an individual behaving with integrity requires prioritizing behavioural influences.

Following the issues, it has come to light that Malaysians had a deficiency in financial literacy and lacked awareness of savings during their early childhood. Malaysians' national financial knowledge level, as measured by financial knowledge, is still very low (Aziz et al., 2020). Preparing for retirement is a massive challenge for working individuals because many Malaysians need to catch up regarding adequate savings for retirement (Gazali & Jamal, 2021). Individual savings are advantageous for the whole country, so children can be taught at a young age to control themselves from consumption mode and learn to spend wisely (Ningsih et al., 2018).

While many researchers have explored the savings behaviour of university students, households, and the elderly, few researchers have focused on the savings behaviour of youth. Hence, this thesis aims to explore the effects of savings behaviour among youth aged 18-40, specifically financial literacy, attitude, subjective norm (peer influence), perceived behavioural control (self-efficacy), and savings intention. The findings of this study may hold significant relevance for understanding the savings behaviour of Malaysian youth for their financial management, policymakers, retail banks, and future research. For these reasons, the paper's findings can provide a better understanding of why youth lack savings behaviour.

LITERATURE BEHAVIOUR

The Concept of Savings Behaviour

The act of consistently allocating resources toward a specific goal is known as savings, and it is the outcome of a decision-making process (Lewis et al., 1995; Wärneryd, 1999). The term "savings" has a wide range of meanings and backgrounds, such as the concept of economy and savings. In the psychological context, the definition of savings involves refraining from spending money in the current period to use it in the future (Wärneryd, 1999). Thung et al. (2012) defined savings behaviour as an individual's behaviour or way of reducing expenditure or deferring consumption. According to Mallick and Debasish (2017), savings plays a crucial role in determining both investment levels and overall economic growth. For economists, savings means using a certain amount of a resource less so that individuals can use more in the future. Hence, saving involves delaying consumption and storing the postponed consumption in some type of asset (Mori, 2019).

Furthermore, Domar (1946) and Tang (2010) assert that the pace of long-term economic growth is contingent on the capacity for savings. This is because a high savings rate will lead to increased investment, influencing capital accumulation and, consequently, stimulating economic growth. Therefore, a country needs adequate savings for an economy to develop enough productive investment, as saving is the primary source of capital formation (Kumarasinghe, 2017). Subsequently, according to Mori (2019), saving methods can include putting money into a savings account, retirement account, mutual fund, or cash. Now that money is being put aside, saving means cutting back on spending. The advantages of saving include coping with unexpected events, building wealth, getting social benefits, planning for retirement, preparing for investment chances, buying, improving dwellings, and paying down debt (Rehmen et al., 2010; Suppakitjarak & Krishnamra, 2015).

Savings also serve the purpose of addressing unexpected financial requirements and constitute a portion of an individual's income (Mori, 2019). Under such circumstances, individuals can improve their living standards when high savings lead to wealth accumulation (Gokhale, 2000). Cronqvist and Siegel (2015) characterize saving behaviour as the comprehension of why individuals in a country save to benefit their economy. When individuals increase their savings, their disposable income increases, leading to an improvement in their overall standard of living. Hence, individual savings are advantageous for the whole country, so children can be taught at a young age to control themselves from consumption mode and learn to spend wisely (Ningsih et al., 2018).

Financial Literacy

Financial literacy can have a significant impact on economic development by fostering greater savings and promoting the growth of the financial sector (Bayar et al., 2017). According to Bayar et al. (2017), the beneficial influence of financial literacy on individual savings remains consistent with theoretical expectations and empirical findings. Financial literacy also enables individuals and families to spend more wisely and encourages savings. Moreover, better financial knowledge can help individuals and households achieve their goals. Financial literacy encompasses a deeper understanding of credit management, knowledge about investment, and the ability to create and manage a budget effectively, impacting savings behaviour (Khatun, 2018). Several studies have uncovered a notable and positive correlation between financial literacy and savings behaviour (Kamarudin & Hashim, 2018; Ahmad et al., 2015; Jamal et al.,2015; Alekam et al., 2018; Asmawi, 2015; Khatun, 2018; and Sirine & Utami, 2016). Insufficient financial literacy can result in financial challenges, especially the debt burden (Idris et al., 2016). Previous studies proved that financial literacy significantly affects attitude (Widjaja et al., 2020; Alodya & Isnurhadi, 2021). Conversely, in different studies, financial literacy was discovered to have no significant association with attitudes (Widyastuti et al., 2016). Based on these arguments, we hypothesize that:

H1: There is a significant positive relationship between financial literacy and the attitude towards savings of youth.

Attitude

According to Mamman et al. (2016), an attitude pertains to an individual's disposition or feelings, whether positive or negative, toward performing a specific behaviour. Notably, attitudes can evolve as individuals acquire new insights or perspectives about the subject or object they are evaluating (Shaouf et al., 2016). According to Husin and Mohamed (2021), the savings attitude is to allocate some of the income for future purposes. People often intend to save money, but they do not have much savings because of many factors, which makes them regret having no money to use in an emergency. Satsios and Hadjidakis (2018) investigated the Theory of Planned Behaviour (TPB) in the context of savings behaviour among Pomak households. Their findings revealed that attitude, subjective norm, and perceived behavioural control have direct impacts on the intention to save and ultimately influence actual savings behaviour. Concerning the study conducted by Shariff and Isah (2019), the results of this study imply that the attitudes held toward retirement have a noteworthy impact on the saving behaviours associated with retirement among adults in Malaysia.

According to the study by Trkulja and Tadic (2021), attitude toward saving emerges as the most influential predictor of the intention to save, with perceived behavioural control following closely. Most studies utilizing the Theory of Planned Behavior (TPB) framework for financial matters have consistently validated the significant and positive impact of attitudes on one's intention (Nizar et al., 2021; Trkulja & Tadic, 2021; Bongini & Cucinelli, 2019; Satsios & Hadjidakis, 2018; Pratami et al., 2018; Yusof et al., 2018; Nosi et al., 2017; Cucinelli et al., 2016). Henceforth, this study operates on the assumption that the more favourable an individual's attitude is towards a specific positive behaviour, the higher the likelihood that this behaviour will be achieved:

H2: There is a positive relationship between attitude and savings behavioural intention.

H5a: Savings behavioural intention positively mediates the relationship between attitude and savings behaviour.

Subjective Norm (Peer Influence)

Youth are vulnerable to peer influence and peer pressure in making decisions (Montandon, 2014). Lown et al. (2015) suggest that increased levels of self-efficacy have a positive correlation with savings behaviour. Individuals with high self-efficacy are more inclined to embrace challenges and, therefore, more likely to succeed in their goals (Bandura, 1977). Moreover, Mitchell et al. (2015) highlighted that young adults acquire knowledge not only through direct but also indirect interactions with their peers. This learning occurs through discussions, the establishment of rules, reinforcement, modelling, and the integration of their social lives with electronic devices. Various studies have demonstrated that peer influence has a noteworthy and positive correlation with savings behaviour such as Dangol and Maharjan (2018), Jamal et al. (2015), Asmawi (2015), Kamarudin and Hashim (2018), Goi et al. (2019), Alwi, Amir Hashim and Ali (2015), and Syahrom et al. (2017). For example, Goi et al. (2019) studied the predictions of private savings within the Malay community. The objective of this study is to analyze all the factors that predict private savings. The results reveal that peer influences savings behaviour. Likewise, Dangol and Maharjan (2018) researched to investigate the impact of parental and peer influence on the savings behaviour of youth. Their study uncovered a connection between peer influence and savings behaviour.

On the other hand, some studies have shown insignificant relationships, such as those of Sirine and Utami (2016) and Rahmawati and Asandimitra (2018). Rahmawati and Asandimitra (2018) conducted a study to investigate how demographics, the social environment, and financial self-efficacy influence savings behaviour. Their research in Surabaya found no significant impact of peers on people's savings behaviour. Of course, peers can influence someone regarding group preferences, but individuals can still control themselves. Additionally, Beshears et al. (2015) discovered that the relationship between peer influence and retirement savings behaviour was not very strong. Peer influence primarily motivated only a small number of colleagues to engage in retirement savings plans. Moreover, positive subjective norm simulates positive behavioural intention (Kuo & Dai, 2012). Additionally, research done by Trkulja and Tadic (2021) has provided evidence that there is no significant association between subjective norm and intention, while other studies have described the opposing negative result (Nizar et al., 2021; Pratami et al., 2018; Bongini & Cucinelli, 2019; Satsios & Hadjidakis, 2018; Yusof et al., 2018). Based on these arguments, we hypothesize that:

H3: There is a positive relationship between subjective norm (peer influence) and savings behavioural intention.

H5b: Savings behavioural intention positively mediates the relationship between subjective norm (peer influence) and savings behaviour.

Perceived Behavioral (Self-Efficacy)

Self-efficacy refers to an individual's belief in their capability to accomplish a task or achieve a particular goal (Bandura, 1977). Bandura (1977) explained that self-efficacy is the belief that one can effectively execute the necessary behaviours to produce desired outcomes or results. In general, self-efficacy beliefs are affected by various psychological, social, and environmental factors (Asebedo, 2016). For example, researchers have established a link between self-efficacy and financial management behaviours, including credit management (Wang et al., 2011) and retirement investments (Dulebohn & Murray, 2007). Therefore, the belief in self-efficacy forms the foundation for successfully executing self-regulation behaviours.

Goi et al. (2019) studied the prediction of private savings within the Malay community and showed no significant relationship between self-efficacy and savings behaviour. When examining all the factors predicting private savings, it was found that self-efficacy was not found to be a significant predictor of private savings. On the contrary, some studies have shown that self-efficacy is significantly positively related to savings behaviours, such as Saber (2022), Rahmawati and Asandimitra (2018), Asebedo and Seay (2017) and Asebedo (2016). Saber (2022) conducted a study on the savings behaviour of employees in SMEs in Saudi Arabia. The research indicated that there is a significant and positive connection between financial self-efficacy (FSE) and saving behaviour among this group. Similarly, Asebedo and Seay (2017) investigated the financial self-efficacy beliefs and savings behaviour of older pre-retirees, and their findings also support a positive relationship between FSE beliefs and savings behaviour. Also, Rahmawati and Asandimitra (2018) have examined how demographics, the social environment, and financial self-efficacy affect savings behaviour. It shows that there is an effect between self-efficacy and people's savings behaviour.

Satsios and Hadjidakis (2018) reveal that households with strong and influential beliefs are more inclined to form a positive intention to save and effectively put that intention into action. A study by Hsu and Huang (2012) shows that perceived behavioural control contributes to predicting behaviour intention, and its impact is more significant than attitude. Prior studies proved that perceived behavioural control significantly affects intention (Trkulja & Tadic, 2021; Yusof et al., 2018). Therefore, high financial self-efficacy will bring high intention to save for individuals:

H4: There is a positive relationship between perceived behavioural control (self-efficacy) and savings behavioural intention.

H5c: Savings behavioural intention positively mediates the relationship between perceived behavioural control (self-efficacy) and savings behaviour.

Savings Intention

Intention refers to the level of commitment individuals are prepared to invest and the extent of determination they intend to employ in carrying out a specific behaviour (Mamman et al., 2016). The theory of planned behaviour centres on the factors that shape behaviour, including one's attitude towards the behaviour, societal norms, perceived behavioural control, and how these elements influence intentions and behaviour (Ajzen, 1991). Saving intention depicts a vital process of the final saving behaviour (Alfi & Yusuf, 2022; Widjaja et al., 2020; Satsios et al., 2020; Satsios & Hadjidakis, 2018; Rodermund, 2012).

According to Chudzian et al. (2015), younger low-income individuals are more likely to take loans, and their income increases over time, which is more likely to save for future financial security. These can be recognized as enduring saving motives that persist throughout one's lifetime. In a similar vein, Rickwood et al. (2017) have asserted that the stronger the intention to engage in a particular behaviour, the higher the likelihood of that behaviour occurring. Consequently, we can formulate the following hypothesis:

H6: There is a positive relationship between savings behavioural intention and savings behaviour.

TPB AND PROPOSED MODEL

To further understand the concept of this study, there is an essential theory to hold, which is the Theory of Planned Behaviour (TPB). This theory is discussed based on the variables used in this study. The Theory of Planned Behavior (TPB) is an extension of the Theory of Reasoned Action (TRA) developed by Ajzen and Fishbein (1980). TPB was conceptualized to improve the predictive power of TRA by incorporating the element of perceived behavioural control to elucidate behavioural intentions (Madden et al., 1992). TPB has been an influential variable in the behavioural context (Conner & Armitage, 1998). According to Ajzen (1991), TPB explains the correlation between human behaviour, managed by three kinds of behavioural intentions. The first determinant is one's attitude toward the behaviour, which refers to the degree of favorability or unfavourability with which an individual evaluates the behaviour in question. The second predictor involves a social factor known as subjective norm, encompassing the perceived social pressure to either engage in or abstain from specific behaviour. The third precursor of intention pertains to the perceived level of behavioural control, indicating an individual's ease or difficulty with executing the behaviour. This aspect is considered to reflect personal experience and anticipated obstacles. This research used attitude towards behaviour to illustrate how financial literacy predicted youths' savings behaviour.

Utilizing TPB-based models to analyze savings behaviour has yielded positive outcomes, in which 72% of retirement savings the variance in intention (Croy, Gerrans & Speelman, 2010). Generally, youths with higher financial literacy will realize the benefits of savings and face obstacles if they do not manage their savings accounts. There is a demonstrably positive correlation between financial literacy and financial behaviour, including higher savings rates (Huston, Finke & Smith, 2012; Lusardi, Mitchell & Curto, 2010; Lyons, Scherpf & Roberts, 2006). Besides, studies based on TPB have shown that attitudes positively impact intention (Bongini & Cucinelli, 2019; Satsios & Hadjidakis, 2018; Nosi et al., 2017; Cucinelli et al., 2016). Consequently, this behaviour belief will encourage youths to form a positive attitude towards savings behaviour.

Subsequently, subjective norms explain how peers influence youths' savings behaviour, representing specific and significant preferences on whether other people should participate in savings behaviour. Subjective norm are adopted to explain how the impact of peers affects their savings behaviour (Jamal et al., 2015). As a result, peers cause social pressure on youths, and their behaviour is considered to affect the intention of youths to save. Some studies have corroborated the significant impact of subjective norm on intention (Pratami et al., 2018; Bongini & Cucinelli, 2019; Satsios & Hadjidakis, 2018).

In the present study, perceived behavioural control is utilized to assess self-efficacy. Youths with high self-efficacy find it easier to save, as they can better manage their desires, exercise self-discipline, and defer immediate gratification (Thung et al., 2012). Satsios and Hadjidakis (2018) observed a positive correlation between perceived behavioural control and intention. Self-efficacy beliefs affect the selection of activities, the efforts in the performance process, as well as the thinking mode and emotional response. According to the TPB, individuals are inclined to engage in a behaviour if they think it will drive to a definite result they value and have the resources and opportunities to perform it (Connor & Norman, 2017).

RESEARCH METHODOLOGY

Research Design

This study constitutes a descriptive research endeavour to examine the factors that influence the savings behaviour of youth in Malaysia. Descriptive measurement methods and questionnaires were used to collect data in this research. Before data collection, it is imperative to accurately understand the research objectives researchers want to collect (Saunders et al., 2003). Therefore, the researcher employed a descriptive research design and administered questionnaires to the respondents. The sampling design involves selecting an adequate number of units from the target population to ensure the collection of precise information regarding the entire community, as outlined by Hair et al. (2003). In this study, the researcher employed a snowball sampling technique to gather data, constituting one of the primary non-probabilistic sampling methods. Although some participants may not cooperate and refuse to participate in the study even after being given a fair chance, sampling design is an integral part of the research methodology, determining the accuracy and minimum error in sampling collection. Therefore, the sampling design encompasses all aspects of defining and selecting samples for the study.

A snowball sampling approach can lead to time and cost savings because it provides a clear direction for sample selection. The researcher distributed the questionnaire in the form of online surveys. Details are explained in the questionnaire distribution section. In the last part, this study investigates the impact of financial literacy, attitudes, subjective norm (peer influence), perceived behavioural control (self-efficacy), and savings intention on youths' savings behaviour. In this study, relevant research was chosen to determine which variables are related.

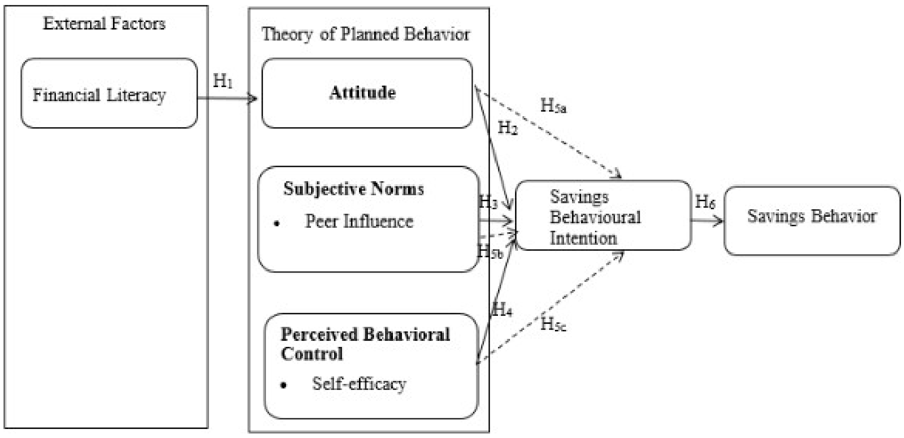

Figure 1. Research Framework

Participants and Settings

The community is a set of elements, people, or events researchers aim to investigate (Sekaran & Bougie, 2019). Identification in the target population's early stage can make the collected samples' direction clear and avoid ineffectiveness. The target population in this study constitutes all youth aged 18-40 in Malaysia. The sampling location for this study is Malaysia. Krejcie and Morgan (1970) introduced mathematical tables to determine the suitable sample size, suggesting a recommendation of 384 for a given population. This sample size is deemed adequate for achieving a representative cross-section of the population. According to the findings of Suresh and Chandrashekara (2012), it is advisable to augment the sample by an extra 10-20% to accommodate potential issues such as withdrawals, missing data, and loss to follow-up, thereby facilitating necessary adjustments. The researcher increased the sample size by 10% to reduce sampling error. Therefore, after incorporating an additional 10% of the initially recommended sample size, 423 questionnaires were distributed to compensate for any missing data.

Data Collection

A self-administered questionnaire is employed to collect data and is divided into two sections. Section A encompasses the demographic profile of the respondents, gathering information on aspects such as age, gender, race, and marital status. Section B comprises six segments: financial literacy, attitude, subjective norm (peer influence), perceived behavioural control (self-efficacy), savings intention, and savings behaviour. Besides, according to the rule of thumb for variable measurement, each variable contains at least three items (Hair et al., 2006). There are five items adapted from Nga et al. (2010), Sabri and MacDonald (2010), and Delafrooz and Paim (2011) to measure savings behaviour. Five items were adapted from the study of Cude et al. (2006) and Hira and Loibl (2005) to measure financial literacy. Five items were adapted from Brandstätter (2005) to measure attitude toward savings. Five items from the study of Otto (2009) were used to measure subjective norm (peer influence). There are five items adapted from Lown (2011) to measure self-efficacy. To measure savings intention, four items were adapted from Widyastuti et al. (2016) and Canova and Rattazzi (2004).

The Likert scale, developed by Rensis Likert (Keegan, 2009), was used to directly assess attitudes. This Likert scale was applied to measure all the variables outlined in the proposed theoretical framework. The study utilized a five-point Likert scale, ranging from 'strongly disagree' (1) to 'strongly agree' (5). Responding to the Likert questionnaire, respondents indicated in detail the extent to which they agreed with each statement. See Appendix A for a complete set of questionnaires. In this study, the researcher used online surveys. An online survey is a more positive response because it is possible that in the environment, respondents feel more comfortable answering the questionnaire in their place. In the questionnaire survey, the researcher provided a concise explanation of the significance of conducting the research and reassured respondents that confidential information would be safeguarded.

Data Analysis

Data analysis is a systematic process that involves inspecting, cleaning, transforming, and modelling data to obtain valuable information, give the final answer, and support providing informed decision-making (Adèr & Mellenbergh, 2008). In this study, Statistical Package for the Social Sciences (SPSS) and Partial Least Squares (PLS) with SmartPLS were employed for data analysis. After data cleaning, data was imported into SPSS software for descriptive analysis, and then PLS analysis was used for hypothesis testing. First, SPSS was established to analyze statistical data or quantitative information. The data analysis results were presented in tables and charts, facilitating a comprehensive understanding and summary of various data types to address the research questions.

Structural Equation Modeling (SEM) with Partial Least Squares (PLS) was employed in this study to examine the relationships within the theoretical model. The SEM-PLS method offers advantages such as suitability for small sample sizes, handling non-normally distributed data, and a primary focus on prediction (Hair et al., 2012). The minimum sample size required for SEM-PLS was estimated following the rule of thumb. The primary objective of this study is to predict the impact of predictor variables (financial literacy, attitude, peer influence, self-efficacy) on criterion variables (savings behaviour) and propose a predictive model.

RESULTS

Response Rate

To comply with the sample size conditions, 423 questionnaires were given to youth in Malaysia. The survey was administered in the form of online surveys. Out of 423 questionnaires, 392 questionnaires were returned (92.7%). Then, 384 responded, and a usable questionnaire (90.8%) was obtained. Nonetheless, the size of this study is regarded as adequate for the analysis as the valid response rate is 90.8%, which is suitable.

Respondent's Profile

In the initial section of the questionnaire, respondents were required to provide information regarding their gender, age, race, monthly income, savings, and spending habits. Regarding gender distribution, the respondents comprised 156 (40.6%) males and 228 (59.4%) females. The age range of the respondents ranged from 18 to 40 years. There were 79 (20.5%) respondents aged 18-23. There were 172 people (44.7%) aged 24-29, 50 people (13.0%) aged 30-35 and 83 people (21.6%) aged 36-40. Furthermore, in this survey, most respondents were Chinese with 208 (54.1%), followed by Malay with 116 (30.2%), Indian with 50 (13.0%) respondents and other categories with 10 (2.6%). From the perspective of income per month, youth who earned RM 2,000 and below are 134 (35.10%), followed by RM 2,001–RM 4,000 124 (32.20%), RM 4,001–RM 6,000 are 50 (13%) and above RM6,001 are 76 (19.70%).

In terms of saving and spending status, about 59 (24.7%) of youth savings are less than spending, 203 (52.8%) of youth savings are more than spending and 120 (31.7%) of youth savings are equal to spending. The findings regarding the respondents' profiles are presented in Table 1.

Table 1. Respondent's Profile

Respondent's Profile	Frequency
Gender	
Males	156
Females	228
Age	
18-23 years	79
24-29 years	172
30-35 years	50
36-40 years	83
Race	
Malay	116
Chinese	208
Indian	50
Others	10
Monthly Income	
RM 2,000 and below	134
RM 2,001–RM 4,000	124
RM 4,001–RM 6,000	50
RM 6,001 and above	76
Saving and spending status	
Saving less than spending	59
Saving more than spending	203
Saving equals spending	120

Goodness of Measure

According to Hair, Ringle, and Sarstedt (2011), construct validity refers to the method in which the variables use well-established theoretical measures to measure what should be measured. In this study, a cut-off value of 0.708 was employed for loadings. Construct validity was assessed through both convergent validity and discriminant validity analyses. Before testing the research hypothesis, both validities must be carried out. To determine the construct validity, the cross-loading of the structure is evaluated to discover whether there are problems between the projects. As a result, items SN2, SN3, and PBC5 with loading amounts of 0.531, 0.510, and 0.674 were removed. Therefore, the entire model is composed of loadings between 0.708 -0.938. To sum up, construct validity holds items higher than 0.50. The loadings for the present

Table 2. Loading

	Attitude	Financial Literacy	Perceived Behavioral Control (Self-Efficacy)	Savings Behaviour	Savings Intention	Subjective Norm (Peer Influence)
ATT1	0.842					
ATT2	0.825					
ATT3	0.862					
ATT4	0.898					
ATT5	0.901					
FL1		0.804				
FL2		0.780				
FL3		0.755				
FL4		0.784				
FL5		0.741				
PBC1			0.708			
PBC2			0.854			
PBC3			0.805			
PBC4			0.712			

Table 2. (cont.)

	Attitude	Financial Literacy	Perceived Behavioral Control (Self-Efficacy)	Savings Behaviour	Savings Intention	Subjective Norm (Peer Influence)
SB1				0.791		
SB2				0.812		
SB3				0.833		
SB4				0.749		
SB5				0.820		
SI1					0.854	
SI2					0.932	
SI3					0.938	
SI4					0.885	
SN1						0.833
SN4						0.792
SN5						0.781

Note: ATT- Attitude, FL-Financial Literacy, PBC- Perceived Behavioural Control (Self-Efficacy), SB- Savings Behaviour, SI- Savings Intention

Reliability Analysis

Reliability, as defined by Sekaran and Bougie (2010), measures the degree to which an instrument consistently assesses a particular concept. According to Hair et al. (2014), composite reliability is considered more suitable for evaluating internal consistency reliability when compared to Cronbach's alpha. Furthermore, Hair et al. (2014) suggest that composite reliability values within the range of 0.6 to 0.7 are deemed acceptable, while values exceeding 0.95 indicate redundancy. In the context of this study, the composite reliability values ranged from 0.844 to 0.946, indicating the reliability of the measurement outcomes. The results of the reliability assessment are presented in Table 2.

Convergent Validity

Convergent validity, as described by Avkiran (2018), pertains to an indicator positively correlated with other indicators within the same construct. According to Hair et al. (2014), convergent validity (CV) can be evaluated using the average variance extracted (AVE), with the AVE ideally surpassing 0.5 and the CR value exceeding 0.7 (Hair et al., 2014). In this research, the loading values range from 0.708 to 0.938, the AVE values fall between 0.597 and 0.815, and

Table 3. Results of Measurement Model

Model Construct	Items	Loadings	CR	AVE
Savings Behaviour	SB1	0.791	0.900	0.643
	SB2	0.812		
	SB3	0.833		
	SB4	0.749		
	SB5	0.820		
Financial Literacy	FL1	0.804	0.881	0.598
	FL2	0.780		
	FL3	0.755		
	FL4	0.784		
	FL5	0.741		
Attitude	ATT1	0.842	0.937	0.750
	ATT2	0.825		
	ATT3	0.862		
	ATT4	0.898		
	ATT5	0.901		
Subjective Norm (Peer Influence)	SN1	0.833	0.844	0.644
	SN4	0.792		
	SN5	0.781		

Table 3. (cont.)

Model Construct	Items	Loadings	CR	AVE
Perceived Behavioral Control (Self-Efficacy)	PBC1	0.708	0.855	0.597
	PBC2	0.854		
	PBC3	0.805		
	PBC4	0.712		
Savings Intention	SI1	0.854	0.946	0.815
	SI2	0.932		
	SI3	0.938		
	SI4	0.885		

Discriminant Validity

In this study, the assessment of discriminant validity was carried out using the HTMT (Heterotrait-Monotrait) criterion, as recommended by Henseler et al. (2015) and updated by Franke and Sarstedt (2019). According to this criterion, HTMT values should be less than or equal to 0.85 for a more conservative evaluation. For a more liberal assessment, they should be less than or equal to 0.90. As shown in Table 3, the HTMT values in this study were all below the threshold of ≤0.85. Therefore, it can be concluded that all constructs in this study have successfully demonstrated discriminant validity. The results of the discriminant validity assessment are provided in Table 4.

Table 4. Discriminant Validity

	ATT	FL	PBC	SB		
Attitude						
Financial Literacy	0.629					
Perceived Behavioral Control (Self-Efficacy)	0.393	0.195				
Savings Behaviour	0.841	0.715	0.163			
Savings Intention	0.833	0.661	0.259	0.793		
Subjective Norm (Peer Influence)	0.529	0.397	0.555	0.441	0.567	

Note: ATT- Attitude; FL- Financial Literacy; PBC- Perceived Behavioural Control (Self-Efficacy); SB- Savings Behaviour; SI- Savings Intention; SN- Subjective Norm (Peer Influence)

Assessment of Structural Model

A structural model illustrates the linear relationship between independent and dependent variables, helping to explain how these constructs are interrelated. The structural model analysis aims to discover data confirming the theoretical model and explain the connection between endogenous and exogenous structures (Avkiran, 2018). Hence, each hypothesis is linked to the causal link and portrays the relationship between constructs (Rasoolimanesh et al., 2015).

Assessment of Collinearity

When there is collinearity in the structural model, the standard error and variance expand (Avkiran, 2018). Hence, it is essential to ensure that no collinear query appears between constructs. Furthermore, due to the high degree of collinearity, indicator information will become redundant, and the indicator will not be significant (Hair, Ringle & Sarstedt, 2011). As per the guidance provided by Hair, Ringle, and Sarstedt (2013), if the tolerance value is below 0.20 and the variance inflation factor (VIF) exceeds 5, it suggests the presence of collinearity issues. Thus, the VIF value of the predicted variable is not more than 5. The results in Table 5 show the collinearity assessment.

Table 5. Collinearity Assessment

Attitude	1.33
Financial Literacy	1.00
Perceived Behavioral Control (Self-Efficacy)	1.28
Savings Intention	1.00
Subjective Norm (Peer Influence)	1.44

Structural Model

With the recommendations of Hair et al. (2017) and Cain et al. (2017), this study conducted an assessment of multivariate skewness and kurtosis. The results indicated that the collected data did not adhere to a multivariate normal distribution, as evidenced by Mardia's multivariate skewness (β=5.115, $p<0.01$) and Mardia's multivariate kurtosis (β=62.566, p<0.01). To address this, the study adhered to the guidance provided by Hair et al. (2019) by reporting path coefficients, standard errors, t-values, and p-values for the structural model using a resampling bootstrapping procedure with 5,000 samples (Ramayah et al., 2018). It is worth noting that, in light of criticism from Hahn and Ang (2017), which questions the adequacy of p-values as the sole criterion for hypothesis testing, this study adopted a comprehensive approach that considers a combination of p-values, confidence intervals, and effect sizes. The criteria for hypothesis testing are summarized in Table 6. The effect size (f^2) is a statistical indicator that marks the significance of exogenous constructs to describe the endogenous structure by recalculating R^2 (Avkiran, 2018).

Cohen's f^2 can discover the effect size of the path model. The f^2 value of 0.02 indicates a small effect size, 0.15 suggests a medium effect size, and 0.35 signifies a large effect size (Cohen, 1988). Initially, we assessed the influence of Financial Literacy on Attitude, resulting in an R^2 of 0.350 (Q^2 = 0.258). This outcome implies that Financial Literacy accounts for 35% of the variance in Attitude, thereby supporting H1. Subsequently, we examined the impact of three predictors on Saving Intention, yielding an R^2 of 0.633 (Q^2 = 0.509). This finding indicates that all three predictors collectively explain 63.3% of the variance in Saving Intention. Specifically, Attitude (β = 0.716, p < 0.01) and Subjective Norm (Peer Influence) (β = 0.207, p < 0.01) displayed positive associations with Saving Intention, corroborating H2 and H3. However, Perceived Behavioral Control (self-efficacy) (β = -0.110, p < 0.01) exhibited a negative relationship with Saving Intention, leading to the rejection of H4. Lastly, this research investigated the influence of Saving Intention on Savings Behavior, yielding an R^2 of 0.504 (Q^2 = 0.321). This outcome suggests that Saving Intention accounts for 50.4% of the variance in Savings Behavior, providing support for H6.

This study adhered to the recommendations of Preacher and Hayes (2004; 2008) for assessing mediation hypotheses by employing a bootstrapping technique to evaluate the indirect effect. The criterion for determining significant mediation was based on the confidence intervals, where if they do not encompass 0, it can infer the presence of significant mediation. As presented in Table 7, this research observed significant indirect effects in the following paths: Attitude -> Savings Intention -> Savings Behavior (β = 0.509, p < 0.01), Subjective Norm (Peer Influence) -> Savings Intention -> Savings Behavior (β = 0.147, p < 0.01), and Perceived Behavioral Control (Self-Efficacy) -> Savings Intention -> Savings Behavior (β = -0.078, p < 0.001). Additionally, the bias-corrected 95% confidence intervals further corroborate these findings by not straddling 0, confirming the results. Therefore, H5a, H5b and H5c were also supported.

Table 6. Hypothesis Direct Effect

	Std Beta	Sample Mean (M)	Std Error	t-values	p-values	f^2	VIF	Decision
Attitude → Savings Intention	0.716	0.713	0.033	21.425	0.000	1.049	1.33	Supported
Financial Literacy → Attitude	0.592	0.591	0.040	14.904	0.000	0.539	1.00	Supported
Perceived Behavioral Control (Self-Efficacy) → Savings Intention	-0.110	-0.103	0.036	3.060	0.001	0.026	1.28	Rejected
Savings Intention → Savings Behaviour	0.710	0.707	0.050	14.232	0.000	1.017	1.00	Supported
Subjective Norm (Peer Influence) → Savings Intention	0.207	0.205	0.040	5.141	0.000	0.081	1.44	Supported

*Note:*A 95% confidence interval with a bootstrapping of 5,000 was used

Table 7. Hypothesis Indirect Effect

	Std Beta	Sample Mean (M)	Std Error	t-values	p-values	Decision
Attitude → Savings Intention → Savings Behavior	0.509	0.505	0.049	10.347	0.000	Supported
Perceived Behavioral Control (Self-Efficacy) → Savings Intention → Savings Behaviour	-0.078	-0.073	0.026	3.046	0.001	Supported
Subjective Norm (Peer Influence) → Savings Intention → Savings Behaviour	0.147	0.145	0.029	5.019	0.000	Supported

Note: A 95% confidence interval with a bootstrapping of 5,000 was used

Analyzing Predictive Relevance (Q^2)

The calculation of Q^2 in the statistical data involves a sample reuse method, known as blindfolding, to assess the relevance of the inner model, as recommended by Hair et al. (2014). According to Chin (1998), it is considered acceptable to exclude values falling between 5 and 10. When Q^2 exceeds zero, it signifies that the path model holds predictive relevance within the context of the endogenous structure, as pointed out by Avkiran (2018). The blindfolding results in CV commonality and CV redundancy are shown in Tables 8 and 9.

Table 8. Blindfolding Results of CV Communality

	SSO	SSE	Q^2 = (1-SSE/SSO)
Attitude	1920.000	1424.504	0.258
Financial Literacy	1920.000	1920.000	
Perceived Behavioral Control (Self-Efficacy)	1536.000	1536.000	
Savings Behaviour	1920.000	1304.628	0.321
Savings Intention	1536.000	753.920	0.509
Subjective Norm (Peer Influence)	1152.000	1152.000	

Table 9. Blindfolding Results of CV Redundancy

	SSO	SSE	Q^2 = (1-SSE/SSO)
Attitude	1920.000	731.272	0.619
Financial Literacy	1920.000	1166.281	0.393
Perceived Behavioral Control (Self-Efficacy)	1536.000	1028.335	0.331
Savings Behaviour	1920.000	1034.838	0.461
Savings Intention	1536.000	499.779	0.675
Subjective Norm (Peer Influence)	1152.000	819.625	0.289

DISCUSSION

This research has significant direct and indirect impacts on explaining savings behaviour. In addition, the outcomes of this research produce some implications for practitioners and academicians. The significance of this study lies in its ability to offer valuable recommendations for top management and contribute to the advancement of both theoretical and practical knowledge.

Financial Literacy and Attitude

This study addresses the research question regarding the association between financial literacy and attitude, and the results affirm a substantial and positive relationship between these two variables. This finding aligns with previous research by Widjaja et al. (2020) and Alodya and Isnurhadi (2021). Also, the results show that youth's financial literacy is essential to achieving a savings attitude. Therefore, youth with higher financial literacy have better attitudes and better savings intention and savings behaviour. Likewise, youth with elevated levels of financial literacy tend to possess a better grasp of how to effectively manage their present financial requirements and prepare for their future financial needs. As a result, youth have a better understanding of financial instruments and financial investment for the future. In line with this, youth with higher financial literacy tend to set aside savings for emergencies. Generally, the correlation between financial literacy and attitude effectively addresses the research inquiries and fulfils the research objective. Therefore, this relationship is confirmed, and Hypothesis 1 is accepted.

Attitude

This study answers whether the attitude is related to savings intention. The results show that attitude is directly or indirectly related to saving behaviour. A noteworthy and statistically significant relationship has been established between attitude and savings intention in this study. This discovery is consistent with prior research findings reported in studies by Trkulja and Tadic (2021), Nizar et al. (2021), Satsios and Hadjidakis (2018), and Widyastuti et al. (2016). Furthermore, it is observed that individuals with more favourable attitudes are inclined to exhibit a stronger intention to save (Satsios & Hadjidakis, 2018). This has shown that the more favourable an individual's attitude toward savings, the more likely he or she will intend to save. In a nutshell, the connection between attitude and savings intention effectively addresses the research question and aligns with the objective of this study. Consequently, the relationship is confirmed, and Hypothesis 2 is accepted.

Additionally, the indirect relationship between attitude and savings intention is positively related to saving behaviour. The study's results reveal that saving intention acts as a mediator in the relationship between attitude and saving behaviour. This underscores the crucial role of saving intentions in mediating the connection between youths' attitudes toward savings and their ability to achieve actual savings behaviour. To improve savings behaviour, youth's willingness to save and attitude towards saving must grow. As a result, this relationship is confirmed, and Hypothesis 5a is accepted.

Subjective Norm (Peer Influence)

This study investigates the association between subjective norm (peer influence) and savings intention. The results confirm a positive and direct relationship between subjective norm (peer influence) and savings intention. This finding is in alignment with prior research conducted by scholars such as Nizar et al. (2021), Yusof et al. (2018), Satsios and Hadjidakis (2018), and Widyastuti et al. (2016). However, it is worth noting that a study by Trkulja and Tadic (2021) in Serbia reported different results. In the context of Serbia, subjective norm were found to be insignificant concerning savings intention. This may be attributed to the observation that in Serbia, individuals tend to engage less in discussions about their financial situations and how to address financial concerns within their nation. The results in current studies show that peer influence among youth contributes to savings intention. This is because peers are significant references for individuals and youth and are susceptible to direct or indirect interaction with peers. Savings intentions can increase with the external support of peers, colleagues, and financial advisers (Yusof et al., 2018). Conclusively, the connection between subjective norm (peer influence) and savings intention effectively addresses the research question and aligns with the study's objective. Consequently, this relationship has been substantiated, and Hypothesis 3 is supported.

Furthermore, the indirect relationship demonstrates a significant association between subjective norm (peer influence), savings intention, and savings behaviour. The results show that youth come from diverse peers and effectively promote the intention and realization of savings behaviour. Youth's decisions are vulnerable to peer influence and peer pressure. For example, changes in lifestyle and the desire and intention to smoke and drink, influenced by peers, lead to consumption and low savings for these youth. If a person who is vital to an individual practices savings behaviour, he is more likely to have a good intention of saving and turn these intentions into actions (Nizar et al., 2021). Therefore, savings behavioural intention serves as a positive mediator in the relationship between subjective norm (peer influence) and savings behaviour. Henceforth, the relationship is confirmed, and Hypothesis 5b is accepted.

Perceived Behavioural (Self-Efficacy)

The primary objective of this study is to investigate whether perceived behavioural control (self-efficacy) is correlated with savings intention. The results designate an insignificant negative direct relationship between self-efficacy and savings intention. Likewise, these findings are compatible with past research, such as Goi et al. (2019), where the study examined all the factors predicting private savings and discovered that self-efficacy did not have a significant predictive impact on private savings behaviour. Therefore, this relationship is confirmed, and Hypothesis 4 is rejected.

Subsequently, the results reveal a positive indirect relationship between perceived behavioural control (self-efficacy), savings intention, and savings behaviour. Indirect effects are mediated by saving intentions. This shows that youth self-efficacy is vital to achieving savings intention and savings behaviour, as savings intention amplifies the connection between perceived behavioural control (self-efficacy) and savings behaviour. This suggests that self-efficacy is positively associated with the likelihood of savings among young individuals in Malaysia. Consequently, self-efficacy beliefs influence the intentions of youth to establish goals and monitor their financial behaviours. Accordingly, this relationship is confirmed, and Hypothesis 5c is accepted.

Savings Intention and Savings Behaviour

This study clarifies the research question of whether savings intention is linked to savings behaviour. The study's results indicate a significant relationship between savings intention and savings behaviour, which is in line with previous research conducted by Alfi and Yusuf (2022), Widjaja et al. (2020), Satsios et al. (2020), Satsios and Hadjidakis (2018), Widyastuti et al. (2016) and Rodermund (2012). The results show that the youth's savings intention is essential to achieving savings behaviour. It has been proved that youth in Malaysia are willing to save and manage savings effectively, contributing to savings behaviour. Accordingly, savings intention is vital in ensuring youth develop savings behaviour. Generally, the relationship between savings intention and savings behaviour solves the research questions and achieves the objective. Thus, this relationship is confirmed, and Hypothesis 6 is accepted.

IMPLICATIONS

Theoretical Implication

The theoretical relationship stated in the theoretical framework was empirically supported in the present research. Typically, the research augmented the literature featuring the effect of financial literacy, attitude, subjective norm (peer influence), perceived behavioural control (self-efficacy), and savings intention towards savings behaviour of youth. Indicatively, a study on youth savings behaviour is still contemporary in Malaysia. However, the study findings subsequently showed that financial literacy, attitude, subjective norm (peer influence), perceived behavioural control (self-efficacy), and savings intention influence savings behaviour. Thus, this research considers it vital for other researchers to investigate the depth of financial literacy, attitude, subjective norm (peer influence), perceived behavioural control (self-efficacy), and savings intention towards savings behaviour. This study also focused on the Theory of Planned Behaviour (TPB), which was used to review deep beliefs that determine a person's financial behaviour.

This research explained the significance of TPB in resolving an individual's savings behaviour, respectively, youth. According to TPB theory, people are inclined to engage in a behaviour if they think it will drive them to a particular result they value and hold these opportunities to present it. The proposed framework model in this research illustrates the connections between the components of the TPB model and savings behaviour. Therefore, financial literacy, attitude, subjective norm (peer influence), perceived behavioural control (self-efficacy), and savings intention predict youth savings behaviour with the concept of TPB.

Ultimately, this research has established that the Theory of Planned Behavior (TPB) is a valid framework for predicting the savings behaviour of youth. Consequently, TPB can serve as a guide for learning and understanding why youth lack savings behaviour. In conclusion, the relationship between financial literacy, attitude, subjective norm (peer influence), perceived behavioural control (self-efficacy), savings intention, and savings behaviour is significant. Therefore, the application of the theory is executed by assessing the impact of financial literacy, attitude, subjective norm (peer influence), perceived behavioural control (self-efficacy), and savings intention on savings behaviour.

Practical Implication

In terms of contributions to the literature, the findings of this study hold various implications for policymakers and retail banks. The results provide a clear understanding of how financial literacy, attitude, subjective norm (peer influence), perceived behavioural control (self-efficacy), and savings intention collectively influence and contribute to the achievement of savings behaviour. Therefore, it can be used as an appropriate solution to achieve savings behaviour. This segment will address the practical contribution of the findings.

First, policymakers are aware of the contribution of youth savings behaviour to the economy. Policymakers can develop effective education programs in primary and secondary schools and higher education to improve youth's financial knowledge. For example, seminars or workshops can improve students' financial experience and skills. In this case, students have had expertise in managing savings since childhood. Besides, policymakers can actively organize financial seminars attended by youth to discuss financial interests and encourage the practice of good integrity. An individual of integrity may end up having commitments and motives to practice savings behaviour.

Subsequently, this research will aid retail banks in gaining a deeper understanding of the savings behaviour of Malaysian youth. Consequently, the findings can serve as inspiration for retail banks to identify new opportunities and engage with youth as valuable clients. To meet or exceed youth's expectations, retail banks can promote financial services or products based on those demands plus youth choices. In line with this, retail banks can propose engaging savings projects and urge youth to save.

In the practical sense, this study provides several suggestions for the practitioners and decision-makers of the organization. First, this study implements financial literacy, attitude, subjective norm (peer influence), perceived behavioural control (self-efficacy), and savings intention and behaviour.

LIMITATIONS AND FUTURE RESEARCH

Limitations of the Study

This study does have three notable limitations, particularly concerning generalizability and methodology. First, from a generalizability standpoint, the empirical study's findings cannot be extended to a broader context, like different countries and cultures, as the data from this study are obtained from youth in Malaysia. Diverse cultures may have distinct effects on savings behaviour. Hence, the population size in this study is limited to youth in Malaysia, without selecting other youths from other countries.

Recommendations for Future Research

The research puts forward numerous problems that require being discussed in the future to overcome the limitations of this study. Moreover, the research uses quantitative methods in research analysis and design. Therefore, future research may adopt another approach, specifically qualitative or mixed methods. The application of qualitative methods can provide a reference for future research. Furthermore, the qualitative technique can further understand the factors that affect savings behaviour. The results will be more effective if both quantitative and qualitative methods are adopted as a mixed-method approach. It is important to note that the study sample is confined to Malaysia. Future research could replicate this study in different countries and across diverse cultural contexts to enhance the generalizability of the findings. The study is conducted only among youth, so further studies may include other groups.

CONCLUSIONS

In short, savings behaviour is a critical factor with implications for the overall development of the national economy. However, studies on financial literacy, attitude, subjective norm (peer influence), perceived behavioural control (self-efficacy), savings intention, and savings behaviour in youth are still in the initial stage. Based on this, this research proposes to extend the understanding of youth's financial literacy, attitude, subjective norm (peer influence), perceived behavioural control (self-efficacy), and savings intention on the savings behaviour of youth in Malaysia. To accomplish the objectives of this research, six critical components of financial literacy, attitude, subjective norm (peer influence), perceived behavioural control (self-efficacy), savings intention and savings behaviour were studied.

The research outcomes in this study have a positive significance on savings behaviour in financial literacy, attitude, subjective norm (peer influence), and savings intention. Furthermore, the findings contribute practical and theoretical contributions to body knowledge. From the perspective of theoretical input, this research's conclusions are consistent with those of the previous literature and held by theories. Results from this study contribute to financial literacy, attitude, subjective norm (peer influence), perceived behavioural control (self-efficacy), savings intention and savings behaviour.

From a practical standpoint, the findings of this study suggest that financial literacy, attitude, subjective norm (peer influence), savings intention and savings behaviour can improve the savings behaviour of youth in Malaysia. In short, results show that hypothesis testing has a high statistical significance. Five hypotheses were supported based on the research outcomes, while one hypothesis was not. The empirical results of this study offer compelling evidence that financial literacy, attitude, subjective norm (peer influence), perceived behavioural control (self-efficacy), savings intention, and savings behaviour significantly contribute to shaping the savings behaviour of young individuals in Malaysia. Consequently, other researchers must further examine this subject in the future because youth savings are a fundamental problem for our country to attain a high savings generation.

CONFLICT OF INTEREST

The author(s), as noted, certify that they have NO affiliations with or involvement in any organisation or agency with any financial interest (such as honoraria; educational grants; participation in speakers' bureaus; membership, jobs, consultancies, stock ownership, or other equity interest; and expert testimony or patent-licensing arrangements), or non-financial interest (such as personal or professional relationships, affiliations, expertise or beliefs) in the subject matter or materials addressed in this manuscript.

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