

Financial Determinants of Saving Behavior among Open, Distance, and Digital Education in Malaysia: A Conceptual Model

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Abstract

This study pursues to analyse the impact of five critical financial variables, financial knowledge, financial literacy, financial self-efficacy, financial management practices, and financial attitude on the saving behaviour of students engaged in open, distance, and digital education. This study, based on the Theory of Planned Behaviour, aims to clarify the collective and individual interactions of these variables in shaping saving decisions, with the goal of creating effective financial education programs for digital learners. Data will be collected using a quantitative research methodology, incorporating standardized questionnaires distributed to a representative sample of students engaged in online and digital learning environments. To make sure the results are reliable and valid, the factors will be tested with tools that have been used in other studies. We will use Structural Equation Modeling (SEM) to look at the links between the independent variables and the dependent variable (saving behaviour). This will make it easier to examine the proposed hypotheses within the theoretical framework. Initial data suggests that all five independent variables demonstrate a positive correlation with saving behaviour, however to varying degrees. Financial attitude and self-efficacy were identified as the principal predictors, suggesting that

learners' perceptions and confidence in their financial skills influence their saving behaviours. Better financial knowledge and literacy lead to better financial decisions and more disciplined saving plans. Good ways to manage money also help people turn information into action. The findings have considerable practical implications for policymakers, educators, and financial practitioners, underscoring the imperative to create customized financial literacy programs for online learners. This study identifies essential behavioural predictors of savings among digital learners, thereby addressing existing gaps and enabling the development of interventions that promote sustainable financial habits in increasingly digital and open learning contexts.

Keywords: Financial Knowledge, Financial Literacy, Financial Management Practices, Self-Efficacy, Attitude, Saving Behaviour

Introduction

Open, distance, and digital education (ODDE) have changed the way people learn by making it possible for people all over the world to get an education that is both accessible and flexible. One of the most important factors that affects the success of ODDE is how well learners save money, especially how well they can manage their money in an online setting. In this context, saving behaviour means how well learners can manage their money and keep it safe. This is important for continuing their education, getting digital tools, and paying for the costs that come with them. Its significance arises from the reality that financial limitations can impede student participation, engagement, and overall academic success (Quah & Ng, 2022). Globally, there are a few things that stand out about how people in ODDE are saving money right now. Open, distance, and digital education (ODDE) is embedded in wider processes of digitization, socioeconomic inequality, and lifelong learning. Theoretically, human-capital and life-course perspectives link financial resilience to educational persistence, while digital-divide frameworks underscore structural barriers, framing saving behaviour as shaped by systemic, not solely individual, determinants.

Many students are having trouble with money, and the COVID-19 pandemic has made things worse by making schools switch to online learning quickly (Choi et al., 2024). Students' lack of financial literacy makes it even harder for them to use good saving strategies, which can lead to dropping out or not getting the full learning experience. The rise of for-profit online schools has also raised worries about predatory financial practices, which put vulnerable students at even more risk (Smith et al., 2024).

Problem Statement

Even though there is more research, we still don't fully understand the way individuals save in ODDE. Most studies concentrate on overall financial literacy instead of particular savings strategies associated with online learning expenses. There is a lack of research investigating the influence of digital tools and technology on learners' saving behaviours, as well as how educational interventions can enhance financial management skills specific to the digital education context (Singwa, 2025). Additionally, the cultural and socio-economic factors that affect saving behaviour in different groups of people are not well understood, which makes it hard to create policies and support systems that work for everyone.

The issues that arise from bad saving habits in ODDE include financial instability, higher dropout rates, and less access to educational resources, all of which have a negative impact

on student success and the long-term viability of the institution. Learners may not save enough money for tuition, data, devices, or other costs, which can make it hard for them to fully participate (Rumble, 2012; Duy-Huan Dao et al., 2024). This emphasizes the necessity for extensive financial literacy initiatives and digital financial management resources specifically designed for online learners.

The importance of examining saving behaviour in ODDE is extensive. Policymakers can create smart plans to improve financial literacy and make sure that everyone has equal access to online education. Schools and colleges can create helpful financial management tools that encourage responsible saving habits, which can lower the number of students who drop out. For ODDE learners, better saving habits mean more financial stability and continued interest, which leads to better grades and long-term financial health. In general, dealing with saving behaviour is important for the long-term success of ODDE systems and for giving learners more power in the digital age.

Research Objectives

1. To examine the relationship between financial knowledge and saving behaviour
2. To examine the relationship between financial literacy and saving behaviour
3. To examine the relationship between financial self-efficacy and saving behaviour
4. To examine the relationship between financial management practices and saving behaviour
5. To examine the relationship between financial attitude and saving behaviour

Research Questions

1. Does financial knowledge have a relationship with saving behaviour?
2. Does financial literacy have a relationship with saving behaviour?
3. Does financial self-efficacy have a relationship with saving behaviour?
4. Does financial management practice have a relationship with saving behaviour?
5. Does financial attitude have a relationship with saving behaviour?

Literature Review

The Relationship between Financial Knowledge and Saving Behaviour

Financial literacy is a key factor in how people saves money. Konetes (2011) points out that people who know more about money are better able to make smart choices about saving and managing their own money. This knowledge helps them save money better for things they will need in the future. Lyons et al. (2006) & Choi et al., (2024) also say that being financially literate is linked to better saving habits. This means that knowing about financial products, budgeting, and interest rates can help people save more consistently. In the realm of open and digital education, cultivating financial literacy can enable learners to cultivate prudent saving habits crucial for the continuation of their educational endeavours. Thus, it is hypothesised that:

H1: Financial Knowledge has a relationship with Saving behaviour

The Relationship between Financial Literacy and Saving Behaviour

Financial literacy includes all the knowledge, skills, and attitudes you need to make good financial choices. Fletcher (2015) contends that elevated financial literacy correlates with enhanced saving practices, as individuals gain a deeper comprehension of the significance of

saving for long-term objectives. Palací et al., (2018) discovered that enhanced financial literacy facilitates retirement planning, underscoring its influence in cultivating prudent saving behaviors over time. Choi et al., (2024) found that college students who were financially literate were better at saving money even when the economy was unstable, like during the COVID-19 pandemic. These studies collectively indicate that financial literacy is a crucial predictor of saving behavior in diverse educational contexts.

Thus, it is hypothesised that:

H2: Financial Literacy has a relationship with Saving Behaviour

The Relationship between Financial Self-Efficacy and Saving Behaviour

Financial self-efficacy, which is the belief that you can handle your own money, has a big effect on how much you save. Haynes, Haynes, and Weinert (2011) show that people who are more confident in their ability to handle their money are more likely to save and stick to strict financial management rules. This confidence gives you a sense of control and encourages you to save regularly, especially in online learning environments where you have to be disciplined with your money (Quah & Ng, 2022; Smith et al., 2024). So, one of the main goals of educational programs that want to teach students how to save responsibly could be to help them feel more confident about their money. Thus, it is hypothesised that:

H3: Financial Self-efficacy has a relationship with Saving behaviour

The Relationship between Financial Management Practices and Saving Behaviour

Budgeting, keeping track of expenses, and making financial plans are all examples of good financial management. Keshavarz and Ahmadian (2023) stress that these habits have a direct effect on how people save money by helping them use their resources wisely and not spend money on things they don't need. Otike and Kizsl (2024) corroborate this claim, indicating that students who implement prudent financial management strategies are more likely to save efficiently and over extended durations. In digital education settings, incorporating practical financial management tools and strategies can improve learners' capacity to maintain their savings, thereby facilitating their educational continuity and alleviating financial stress. Thus, it is hypothesised that:

H4: Financial Management Practices has a relationship with Saving Behaviour

The Relationship between Financial Attitude and Saving Behaviour

Financial attitude refers to how people think, feel, and react to money and saving. Most (2011) emphasizes that favourable attitudes towards saving, including prioritizing it, correlate with elevated savings rates. Yasin (2025) emphasizes that responsible financial attitudes, developed through education and awareness, promote disciplined saving behaviours. In open and distance learning settings, fostering positive financial attitudes can affect learners' motivation to prioritize savings, ultimately influencing their financial stability and academic achievement. Thus, it is hypothesised that:

H5: Financial Attitude has a relationship with Saving Behaviour

Conceptual Framework

Five independent variables namely financial knowledge, financial literacy, financial management practices, financial self-efficacy and financial attitude and one dependent variable, saving behaviour will be measured in this study. Figure 1 shows the conceptual framework of this study based on the literature discussed.

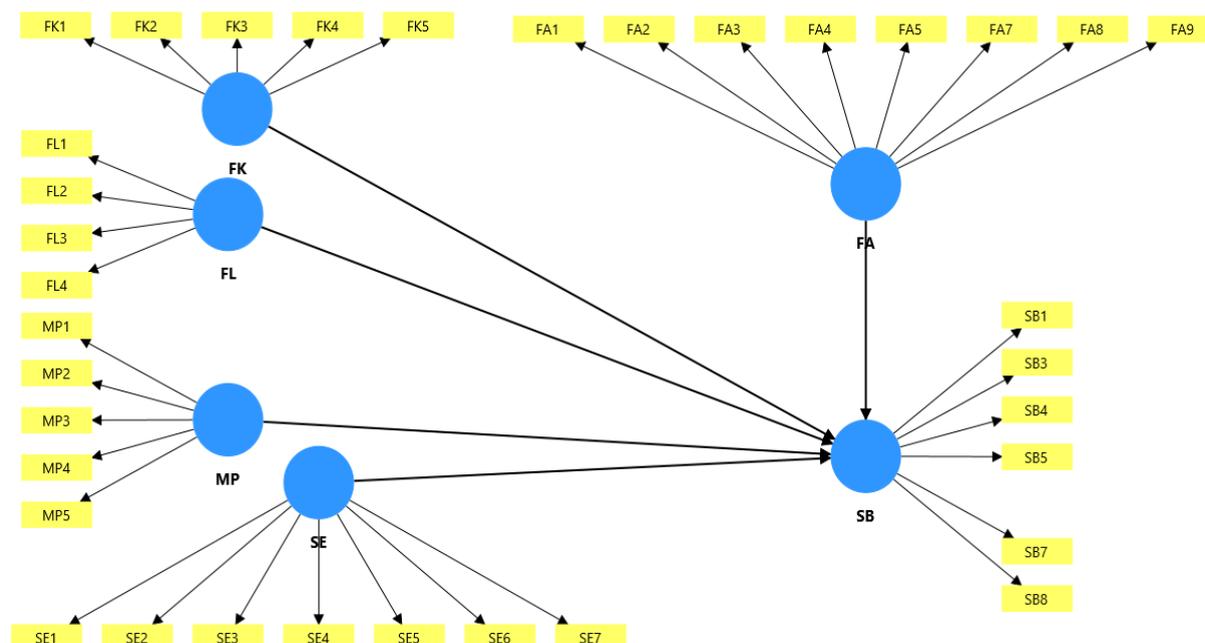


Figure 1. Conceptual framework

Methodology

This study will cover Malaysian online digital and distance education (ODDE) learners from private higher education institutions. A non-probability sampling will be the adopted for this study. Based on Krejcie & Morgan (1970) sampling table, the minimum number of samples required for this study is 384. This study will adopt a quantitative approach using primary data. Data collection will be done by using a survey questionnaire instrument. The survey questionnaire will be adopted and adapted from previous studies. The questionnaire will consist of two parts which are respondents' profiles and variables. All independent variables and the dependent variable will be measured by using a 5-Likert scale from strongly disagree to strongly agree.

The designed questionnaire will go through the validity and reliability test to ensure the consistency of the internal items before actual data collection. Descriptive analysis will be performed to analyse the respondents' profile. Convergent and discriminant analysis will be performed by calculating the Average Variance Extracted (AVE), Composite Reliability, Cronbach Alpha and Cross Loading. For structural analysis and hypothesis testing, PLS algorithm and bootstrapping technique will be employed. At the beginning of the two-step process, model assessment focuses on the measurement models.

Data collected will be analysed by using SPSS ver. 20 and SmartPLS ver.4.0 software. SPSS will be used to perform a pilot test and descriptive analysis and SmartPLS will be used for inner and outer model's evaluation including the hypotheses testing.

Conclusion

This concept paper outlines a research framework designed to investigate the relationships among five principal independent variables—financial knowledge, financial literacy, financial management practices, financial self-efficacy, and financial attitude—and their influence on the dependent variable, saving behaviour. Utilising the Theory of Planned Behaviour (TPB) as its theoretical framework, the study asserts that individuals' attitudes towards saving,

perceived behavioural control (manifested through self-efficacy and management practices), subjective norms (corresponding with financial literacy), and behavioural intentions affect their saving behaviour. This research seeks to elucidate the factors that promote responsible saving within the framework of open, distance, and digital education by examining these variables.

The main objective of this research is to examine the relationships between crucial financial variables and saving behavior in the context of open, distance, and digital education. The study aims to investigate the individual effects of financial knowledge, financial literacy, financial self-efficacy, financial management practices, and financial attitude on saving behavior. The research aims to determine the key factors that most significantly influence saving behavior among learners, thereby offering a thorough comprehension of the financial determinants that can be leveraged to encourage responsible saving practices in digital learning contexts.

This study provides substantial practical implications by educating educators and policymakers on effective strategies to improve financial education programs that foster responsible saving behaviours among students in open, distance, and digital learning environments. Theoretically, it expands the application of the Theory of Planned Behaviour by incorporating specific financial variables, offering a refined comprehension of how attitudes, self-efficacy, and management practices affect saving intentions and behaviours. The findings will empirically enhance the existing body of knowledge by pinpointing critical predictors of saving behaviour in digital learning environments, thus addressing research gaps and providing evidence-based insights. The goal of these implications is to help create targeted interventions that encourage financial empowerment, which will lead to learners from different socio-economic backgrounds developing long-term financial habits.

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