OPERATIONS RESEARCH SOCIETY OF EAST AFRICA JOURNAL

2026 vol 16, No. 2
https://doi.org/10.56279/orseaj.v16i2.8

ORSEA Journal

Research Article

ORSEA, 16, 2
92

Received: May 2025
Revised: 14th August 2026
Accepted: 17th October
Published: 2nd Novemebr 2026

Citation: Kuteesa, T. N., Kaawaase, T. K., Orobia, L. A., Nabeta, I. N., Tumwine, S., & Mindra, R. K. (2026). Individual learning behaviour and financial literacy practice among university students; the components that matter most. ORSEA Journal, 16(2), 92 - 101.https://doi.org/10.56279/orseaj.v16i2.8

SDG alignment

SDG 1:Financial literacy helps students to manage their budgets and be able to live within means.

SDG3: Good Health and wellbeing. Individual learning in terms of financial literacy enhancement leads to sound financial decisions which reduces financial stress of students.

SDG4; Quality education. Financial literacy fills the gap of the need for financial education through provision of practical financial skills which are key as they transit to the work environment.

SDG 5: Gender equality and SDG 10: Reduced inequalities.

SDG 8: Decent work and economic growth.

SDG 9; Industry, innovation and Infrastructure,

Copyright: © 2026, University of Dar es Salaam.

This is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY-NC-ND 4.0) license.

Individual learning behaviour and financial literacy practice among university students; the components that matter most

Tapenence Namutamba Kuteesa[1]*, Twaha Kigongo Kaawaase[1], Laura A. Orobia[1], Isaac Nkote Nabeta[1], Sulait Tumwine[1] and Rachel K. Mindra[1]

[1] *Makerere University Business School, Uganda*

**** Correspondence:*** *Tapenence Namutamba Kuteesa*

Abstract

The paper aimed at establishing whether the two components of individual learning behaviour: instruction oriented learning, and meaning oriented learning, are associated with financial literacy practice among government-sponsored University students in Uganda. A cross-sectional research design involving final year government-sponsored university students from four universities of Uganda was conducted. Closed-ended questionnaires were administered to 398 students after which the data were subjected to a correlational analysis Previous studies in financial literacy mostly focused on categories such as entrepreneurs, employees, and youth in general as they constitute an important section vital in the development of economies, ignoring university students who constitute a big portion of many countries' populations. The current study being novel, found that instruction oriented learning and meaning oriented learning behaviours behaviors strongly associated with financial literacy of government-sponsored university students. This suggests that instruction oriented learning and meaning oriented learning behaviours are much necessary among final-year government- sponsored university students.

Keywords: Financial literacy, individual learning behaviour, meaning oriented learning, instructional oriented learning, government-sponsored university students.

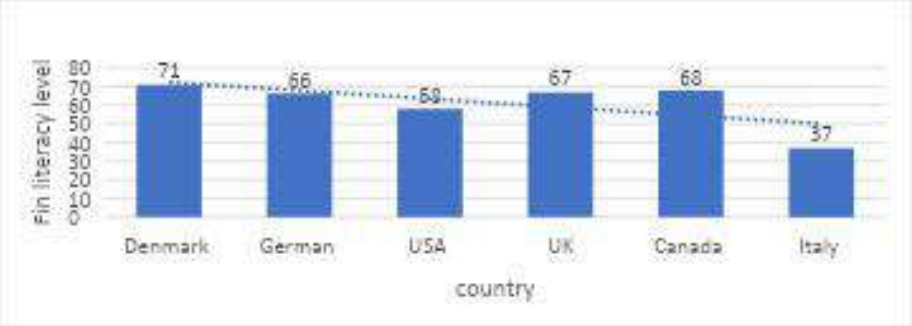
Introduction

Globally, the science of managing finances has become a key matter for both governments and individuals especially after the financial crisis in 2008 (Garg & Singh, 2018). This is because of the constant intense attention by practitioners, academicians and policy makers given the importance of finance in an individual's financial life (Refera, Dhaliwal, & Kaur, 2016; Oseifuah, Gekye, & Formadi, 2018 Financial illiteracy affects all irrespective of age, gender and education levels including youth of ages 15-35 years as indicated by the African Youth Charter (Garg & Singh, 2018; Lusardi et al., 2010). The very low levels of financial literacy among youth imply that university students are equally affected. In support, Lusardi and Messy (2023) emphasize the importance of financial education programs for youth. In this study, financial literacy refers to the combination of awareness, knowledge, skill, attitude and behavior necessary in the decision making aimed at financial success (Atkinson & Messy, 2012). In support, Lusardi and Messy (2023) consider financial literacy as knowledge and skills (Kyeyune & Ntayi, 2025) that enable individuals to manage their financial life challenges. This measure of financial literacy was embraced in this study.

Financial literacy is a key enabler of the United Nations Sustainable Development Goals (SDGs), as highlighted by NPA (2021), Pandey et al. (2022), Zaimovic et al. (2023), Treu (2024), and Yurtkur et al. (2025) through promotion of sustainability economically, socially, and intergenerational. Economically, it encourages savings, responsible borrowing, wealth creation, and financial resilience, contributing to SDG 1 (No Poverty) and SDG 8 (Decent Work and Economic Growth). It also supports SDG 9 (Industry, Innovation, and Infrastructure) by equipping university students with skills such as entrepreneurship, bookkeeping, credit management, and digital finance among others. Financial literacy enables individuals to use finances safely and effectively thus strengthening economic resilience, promoting social inclusion and innovation, and safeguarding the financial well-being of future generations.

Unfortunately globally, evidence indicates that on average, one-third of the adult population lack adequate financial knowledge and skills to manage funds (Klapper, Lusardi & van Oudheusden, 2016). Further-more, those authors published various alarming financial literacy rates via the 'Standard & Poor's Ratings Services Global financial literacy Survey', (S & P), targets for many countries. Worse-still, even the global country-level financial literacy rates for developed countries range from 71 percent in developed countries to as low as 13 percent in low developed countries. In advanced economies like the UK, Canada, France, Germany, Italy and Japan among others, their adult population are generally financially literate but still with widely varied rates from 37% in Italy to 68% in Canada. The survey by Klapper et al. (2016) further indicated that Denmark had 71%, USA 58% and UK 67%. The survey highlighted that the European Union (Canada, France, German, and Italy) had an average of 55% adults financially literate but with generally wide variations. For example Italy had 37% financially literate adults while Canada had 68%. The general view of financial literacy levels of major advanced economies, and major emerging economies around the World as highlighted by Klapper et al. (2016) are shown below in Figure 1

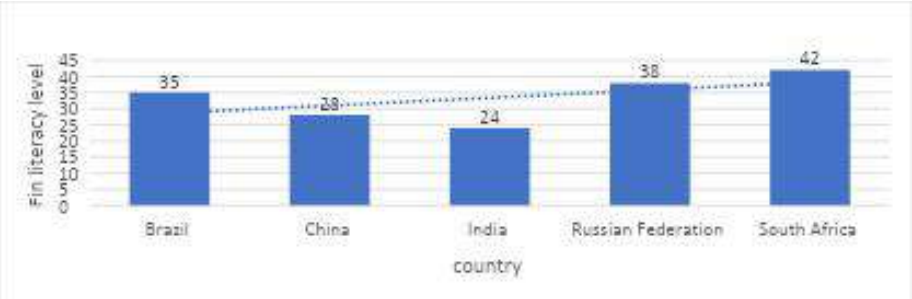
Figure 1: Financial literacy of major advanced economies



Source: Sec data from S&P survey

Surprisingly again, the World emerging economies (BRICS: (Brazil, the Russian Federation, India and China), had varying rates from 28% for India to 42% for South Africa. Further, Brazil, China, India and Russian republic had 35 %, 28%, 24% and 8% respectively as per Figure 2.

Figure 2: World emerging economies: (BRICS)



Source: Secondary data by S & P Fin-Lit survey

Generally, the situation is not different on the African continent where financial literacy rates range from as low as 15%, for Somalia, Sierra Leone 21%, and Rwanda standing at 26% while Uganda was at 34% (Klapper et al., 2016). Further-more, Angola and Somalia had 15%, Burundi 24%, Egypt 27%, Congo31% and Congo and Democratic Republic 32%. However, the assessment based on ability to answer the four questions on Inflation, basic numeracy, interest compounding and diversification as conducted by 'S and P' financial literacy survey in 2014, might not be a true depiction of developing countries especially in the context of government sponsored university student, a clear practical gap justifying the need for this study.

Uganda's situation indicates 66% adults lacking money managing abilities as evidenced from the country's non banked population: 90% in 2017 per World Bank (2017) with only 53% population (21 million) keeping their money with a formal financial institution (ibid.). Current trends show the young having numerous financial decisions to make than in the past per Tezel (2015) as they care for their needs which justifies the need for this study. Additionally, Lusardi and Messy (2023), assert that PISA assesses the readiness of students for future challenges involving ensuring they have scrutiny, cognitive and moving communication abilities to empower them with continuous learning helpful throughout their study and working lives. This is supported by Kusemererwa et al. (2020) who emphasized the need for youth to adopt individual learning behavior; meaning oriented, instruction oriented, emergent learning and planned learning. The current study however, focuses on individual learning behavior in relation with financial literacy focusing on only on two components: meaning oriented learning behavior and instruction oriented-learning behavior) only. This implies that the other components were left out.

Empirical records show the presence of a lot of research on financial literacy in the areas of inflation, interest rates and diversification (Lusardi, 2019; Lusardi & Mitchel, 2014), and other demographic variables while ignoring individual learning behavior. Individual learning behavior involves various experiences that arise out of interaction with others including superiors and peers (Keith et al., 2016; Kusemererwa et al., 2020). Therefore, there is a need to explore whether components highlighted above matter in financial literacy practice among university students. Using a standardised questionnaire we tested whether the two above mentioned components matter for Ugandan university students' financial literacy practice in a low developing country context. Notably, final-year university students who are about to join the world of hustle in financial decision making (Tezel, 2015), may use the results of this study to improve their abilities in managing personal finances. Additionally, the study results are vital for academicians, practitioners, policy makers in guiding the future direction in the financial literacy space.

Literature review

Financial literacy

The concept of financial literacy -began in the United States of America to address the widespread financial illiteracy in the late 1980's has become topical for many nations (Mindra et al., 2017). More-so, this is evident in the areas of decision making regarding budgeting, saving, planning, managing and

controlling funds (Herawati et al., 2018). In support, Garg and Singh, (2018) studied youth financial literacy and found that youth views on national savings and investments crucial since they are the future decision makers who will be affected by the current policy implementations. Further-more, Sekakubo, Nkurunzinza, Muwanga, and Tumwine (2022), affirm that financial literacy exhibits itself through financial knowledge and attitude regarding activities such as savings and investing. Relatedly, Koomson, Ansong, Okumu and Achulo (2023) assert that financial literacy not only supports decision making but is also considered to be a driving force behind the achievement of sustainable development goals such as poverty reduction in countries like Kenya, Tanzania and Uganda.

Yet, on the other hand, Kyeyune and Ntayi (2025) found that Ugandans lack financial management skills and financial literacy for purposes of sustainable development in their respective communities. This confirms findings by Nkundabanyanga et al. (2014) and Bitature (2010) who highlighted that such situations threaten wealth accumulation in low developing countries. Similarly, OECD (2017) indicates that financial literacy is low among nations, groups and various categories of individuals including students yet critical in decision making. This is supported by findings by Lusardi (2019) who considers financial literacy as so critical especially when responsibility for personal finances increased even for university students than previously. Specifically, Tusuubira (2019) in a study relating to third-year statistics students in Makerere University also confirmed the low financial literacy levels of students. Fortunately, the government set up a financial literacy strategy to address this through groups like schools, youth and women. The extent to which this strategy has improved the financial levels remains unclear. This thus necessitates continuous individual learning to ensure the low levels are averted, which underscores the importance of this paper exploring the extent to which individual learning behaviour financial literacy of university students.

Individual learning behavior and financial literacy

The concept of learning behavior denotes addition of new knowledge (Remmele & Seeber, 2012). Thompson and McMillan (2010) termed it as an inspiring and stimulating stream of experience through learning styles also called cycles. Van Gelderen, Sluis, and Jansen, (2005) contend that these learning styles were first devised by Honey and Mumford (1992). In-fact Dantas and Cunha (2020) consider learning as a process by which knowledge is gathered through changes in practices. Previous research shows that through knowledge addition there are behavioral changes that are noticed in human beings per McMillan (2008) thus financial literacy. This is supported by Lantara and Kartini (2015) who assert that education levels relate with financial literacy.

Further still, empirical evidence shows that learning from each other leads to changing direction of learners whenever an opportunity arises which is likely to affect- agents that are close, thus financial literacy (Goldstein, Hazy & Lichtenstein, 2010). Van Gelderen et al. (2005) assert that individual learning behaviour represents an approach to learning that consists of meaning oriented learning behaviour, instruction oriented learning behaviour, planned learning behaviour, and emergent learning behaviour. These forms of learning result in an individual committing to seek knowledge in order to make viable decisions. In a related business study, Kusemererwa et al. (2020) emphasised the importance of linking individual learning behaviour dimensions highlighted above, to self-employment practice among youth who had studied tertiary education. This was in agreement with Van Gelderen et al. (2005) and Maniam (2015) who found that individual learning behaviour was closely related to achievements in personal skills and business advancement.

Sekakubo et al. (2022) in their study on financial literacy and financial performance of micro enterprises found a significant positive relationship between financial literacy and financial performance. The authors emphasise that the findings not only hold true for financial performance but also for all financial literacy components such as financial knowledge, financial attitude and financial skills. Supported by Potrich, Kelmara and Kirch (2015), financial literacy has a significant role in decision-making regarding financial matters since it represents a systematic effort aimed at the development of positive knowledge, behavior and attitude, thus more learning. Relatedly, Kamunge, Njeru and Tirimba (2014) argue that arrangements that benefit from financial literacy should involve keeping proper records where personal finances are managed separately. This requires that the individual gets involved in continuous knowledge acquisition.

Since matters to do with finance affect people of all walks of life, this study is intended to investigate the relationship between the individual learning behaviour and financial literacy of university students.

The study is part of a wider study focusing on financial literacy among university students in Uganda. Normawati et al. (2022) emphasise the importance of financial knowledge, financial attitude and financial behaviour combined in solidifying financial literacy. It is worth noting that enhanced knowledge related to management of finances improves the individual's personal financial life as indicates Oseifuah (2010), thus financial literacy. Oseifuah (2010) considers financial literacy as a key skill for the young because it enables them to effectively manage funds through sound financial decisions.

Relatedly, Mindra and Moya (2017), indicate that through financial literacy; (knowledge and skills), individuals get equipped with awareness that enables them to solve day to day financial challenges. This implies that an individual's financial situation enhancement requires attention. This is a personality trait as asserts Oseifuah (2010) and which Pinjisakikool (2017) considers most related to financial literacy. For instance, Heaven and Ciarrochi (2012) found that careful students performed well in intellectual learning.

The findings suggest that cautious individuals may gain financial literacy from a number of sources including homes, fellow students in schools, seminars and courses.

In addition, Refera et al. (2016) views the acquisition of financial knowledge through either formal or informal sources or both as part of a decision making process aimed at optimising financial outcomes. Empirical evidence shows that decision making processes require individuals to meditate about or attend to critical aspects of financial circumstances as they make viable decisions (Pang, 2010). In support, findings from the study by Refera et al. (2016) indicate that low levels of financial literacy hinder personal financial decision making abilities. Therefore, learning from formal and informal sources as earlier noted is intended to avert the commonly known low levels of financial literacy in both developed and developing countries (Xu & Zia, 2012). This supports McMillan's (2008) argument that interaction and connectedness lead to creation of new preparations. We therefore try to test in this study whether individual learning behaviour influences financial literacy among university students. We thus hypothesise that; individual learning behaviour matters in the financial literacy practice of university students. Further still, we test whether individual learning behaviour components have an association with financial literacy of university students as no such paper has been sighted yet in empirical records in the university students' context. We thus specifically explore whether: meaning oriented learning behaviour, and instruction oriented learning behaviour as components of individual learning behaviour, have an influence on financial literacy among university students.

One of the other components of individual learning behaviour is emergent oriented learning behavior. This refers to un-predicted type of learning or consideration (Maniam, 2015). This is affirmed by Nidar and Bestari (2012) in their recommendation to students to begin learning by themselves about personal finance matters while highlighting family (parents) as the most important source of knowledge about personal money control unlike in the planned approach. Duque (2014) supports the above argument through emphasis that learning outcomes are influenced by several factors including financial socialization via peers, culture, and mass media, thus financial literacy. Planned oriented learning behavior on the other hand, is another component of individual learning which refers to a deliberate precautionary approach Kusemererwa et al., (2020).This is closely related to construction of awareness through inspiration and organized seminars, instructive establishments and learning institutions (Grimes, Roger & Smith, 2010). Bianco and Bosco, (2011) found that college students with business major seemed to rank higher in financial literacy although they still had a low score of 46% in some instances. Simarmata and Christina (2022) also found a positive and significant relationship between interest in learning and financial literacy. The findings indicate a strong positive association between the variables under study as students with high interest in learning about financial matters tend to have higher financial literacy. It is important to note that financial literacy influences the students' ability to make sound financial decisions while contributing to their positive financial life (Mancone et al., 2024).

Further-more, Grimes et al. (2010) indicated that high school courses in economics and business increased the probability of an adult owning a bank account. Ansar, Klapper, and Singer (2023), highlight that about the 24% (1.4bn) adults worldwide lack a financial account in a financial institution by 2021. The above discussion seems to suggest that planned learning orientation has less impact into turning individuals into being financially literate. None-the less, as earlier highlighted, emergent learning behavior and planned learning behavior are not the focus in the current study.

Meanwhile, Stolper and Walter (2017) indicated that low levels of financial literacy were linked to high debt cost. In support, Urban et al. (2020) also indicate that young people who obtain financial education in schools were less likely to suffer from debt related challenges. Meanwhile, the uneducated tend to learn through trial and error (ibid). This suggests that providing financial literacy education to the young helps them to properly manage debt, thus improving financial literacy.

However as a point of departure, Fernendes, Lynch Jr, and Netemeyer (2014) indicated that having financial education may not influence future financial behaviour. Relatedly, Uganda 2013 FinScope III report findings showed that 68% respondents with highest education could not answer financial literacy questions correctly yet the uneducated answered. These results contradict each other, thus highlighting a knowledge gap that require further investigation. This further justifies the importance of this study.

Meaning oriented learning behavior and financial literacy

Meaning oriented learning behaviour focuses on where an individual looks at the deeper meaning of experience in what he/she is doing and derives sense (Kusemererwa et al., 2020; Wilson, Abraham & Mason, 2014). Indeed, the authors assert that learning helps an individual to do things better in future. However, making decisions related to personal finance matters require one to be critically intelligent according to Pinjisakikool (2017), a key characteristic of financially literate individuals. From the above discussion, learning and financial literacy complement one another and thus should be considered together as significant to an individual's financial life. This results in acquisition of skills and experience according to Kusemererwa et al. (2020) which can be used by an individual to achieve a given desired financial life goal.

Instruction oriented learning behaviour and financial literacy

Instruction oriented learning behaviour refers to a form of learning where an individual puts in effort to meet certain goals and demands of others (Kusemererwa et al., 2020; Van Gelderen et al., 2005). This

implies that this form of learning focuses on meeting one's obligations and responding to that individual's expectations as asserts Wilson et al. (2014). This is supported by Farrell, Fry and Risse, (2016) in their assertion that a pronounced assurance may be necessary in enhancing financial literacy through some education programs. This aligns with Mandell and Klein (2009) who found that literacy related financial knowledge advancement was likely to strengthen a change in financial firmness, thus financial literacy. To the contrary, a study where graduates were followed up for up to five years yielded results which showed that taking a course was not a guarantee to scoring high in financial literacy (Mendell & Klein, 2009), although important. This leaves an empirical gap that requires bridging through the current study

Thus, from the foregoing discussion, we therefore hypothesise that:

H1:There is a positive relationship between meaning oriented learning and financial literacy.

H2:There is a positive relationship between instruction oriented learning and financial literacy.

H3: There is a positive relationship between individual learning behavior and financial literacy.

Methodology

Design, population and sample

The study was cross sectional involving a survey of 4000 university students in Uganda according to the National Council for Higher Education (2021). A letter what obtained from the university addressed to the heads of institutions authorising the researcher to collect data from the students of the universities of choice. Following the guidance of Yamane (1973) formula, a sample of 398 university students was determined. This was because, Yamane (1973) formula has been used by previous scholars such as (Bongomin et al., 2017; Mafabi et al., 2012; Mindra & Moya, 2017), thus proved to produce results that are accurate. More-so, sample selection was based on a stratified sampling approach where the population was grouped into strata known as programs. Thereafter the respondents were selected based on systematic sampling where the first respondent was selected randomly, then the rest selected based on a predetermined sampling interval for instance the kth number. The unit of analysis was university students while the unit of inquiry was the individual government-sponsored university student in the final year. Final year students were preferred because they were considered almost transiting from being financially dependent on others to being financially independent (Tezel, 2015). A cross-sectional study design was preferred because of the need to analyse data at a single point in time as guided by Hair et al. (2017). The data was collected using a six-point Likert scale questionnaire from final year university students. The recommendations of Podsakoff et al. (2003) were followed to guard against common method biases. Meanwhile, correlation coefficient analysis was used to investigate whether there were strong positive relationships between the study variables as hypothesised in the literature review. Out of the 398 questionnaires administered, the 318 found usable and therefore serialized 1-318.

Measurement of study variables

Huston (2012), measured financial literacy in terms of two major dimensions: the understanding dimension (skill) and the knowledge dimension. Relatedly, Bongomin et al. (2017) added the functional components of attitude and behavior. According to Atkinson and Messy (2012), skill is that confidence an individual possesses that supports the use of awareness to make viable financial decisions while knowledge is a measure of how well an individual can contextually understand a specific idea (make meaning). Therefore, financial literacy was operationalized using sub-dimensions: skill, knowledge, behavior and attitude as adopted from the work by Atkinson and Messy (2012). Meanwhile, individual learning behavior was operationalised as: meaning oriented learning behaviour, instruction oriented learning behaviour, emergent learning behaviour, and planned learning behaviour as adopted from studies by Maniam (2015)**.** Meaning oriented learning was referred to as one's efforts to explore the unlimited sense of experiences within an activity or goal of interest (Van Gelderen et al., 2005). Meanwhile planned learning refers to one's intended method of acquiring the compulsory skills and knowledge according to Van der Sluis and Poell (2002). On the other hand, the very author referred to instruction oriented learning as one's unintentional scrutiny of the normal condition to acquire awareness.

In the current study, the authors have adopted the same conceptualization that was also used by Kusemererwa et al. (2020) in the paper on self-employment. A six point Likert scale was used in a questionnaire survey research as guided by Sekaran (2003). The items used had been previously tested and proved to be reliable and valid (Atkinson & Messy, 2011). These had also been used in previous studies (Atkinson & Messy, 2012; Bongomin et al., 2017; Huston, 2012; Mindra, 2016). A questionnaire was the preferred tool because of its being very suitable for conducting descriptive and quantitative research. In this study, the respondents were required to express their degree of confirmation of a situation. This was anchored on the 6- point truth scale ranging from 'very untrue' (1), untrue (2), somewhat untrue (3), somewhat true (4), true (5) and 'very true' (6).

Study findings

The respondent background attributes include statistics on age group, gender, program and year of study of the university students as per Table 1. Out of the 398 questionnaires administered, 318 were returned representing a response rate of 79.8 % which is considered adequate according to Mellahi and Harris, (2015). On sorting, all the 318 received had been fully filled (Phellas, Bloch, & Seale, 2011).

This was obtained because of the personal approach used by the researcher and research assistants while

collecting data. According to the age-group, the majority were between 20-30 years which constituted 94.3% while the other age-groups: 31-40 years and 41-50 years comprised only 5.6%. This matches the level of youth in the country which is quite higher than any other age-group and implies that most university students belong to the dominant group of 20-30 years which is the most common age-group at the university. In regard to gender, the male accounted for 54.4% while the female accounted for 45.6 % which level does not match with the government policy that encourages the girl child to enroll for higher education. The low level of female respondents could have been attributed to the programs selected. In regard to the program of study, the majority were business administration students and according to the year of study, all were final years. This might correspond to the duration of most university courses. The background characteristics are reflected in Table 1.

Table 1: Showing the background characteristics, Total N = 318 Respondents

Category		Count	Percent
Age Group	20-30 Years	300	94.4
	31-40 Years	16	5.0
	41-50 Years	2	0.6
Gender	Male	173	54.4
	Female	145	45.6
Program	Business Administration	149	46.9
	Accounting/Finance	7	2.2
	Food and Nutrition	6	1.9
	Economics	41	12.9
	Engineering	32	10.1
	Agriculture	28	8.8
	Medical	38	11.9
	Art and Design	17	5.3
Total		**318**	**100**

Source: Primary data

Correlation analysis

In this study, a correlation analysis was done in order to establish the association between the dependent variable and the independent variable (Field, 2009; Nueman, 2014). Thus, the results were intended to confirm the existence of the relationship among the dependent and independent variables. The results for Zero order correlations showed a positive significant relationship between financial literacy and the two components of individual learning behavior: meaning oriented learning and instruction-oriented learning a as shown in Table 2.

Table 2: The relationships among the individual learning behavior sub-dimensions and financial literacy

Variable	1	2	3	4
Meaning Oriented Behaviour-1	1.000			
Instructional Oriented Behaviour-2	.351**	1.000		
Individual learning behavior – 3	.674**	.667**.	1.000	
Financial Literacy- - 4	.345**	.446**	.435**	1.000

**. Correlation is significant at the 0.01 level (2-tailed).

Source: Primary data

The correlation results show that the two components of individual learning behavior have significant and positive association with financial literacy and these are meaning-oriented learning and instruction oriented learning behavior focused on. According to Table 2, the results depict a positive and significant relationship between individual learning behavior, meaning oriented learning behavior, instruction-oriented learning behavior and financial literacy. The results thus imply a strong association between the dependent and independent variables.

Results of hypotheses

The results in Table 2 indicate that the correlation results support the three hypotheses: H1 and H2, and H3 shown in Table 3.

Table 3: Summary of results of the outcome of the hypotheses

Hypothesis		Outcome
H1	There is a positive relationship between meaning oriented learning and financial literacy	Supported
H2	There is a positive relationship between instruction oriented learning and financial literacy	Supported
H3	There is a positive relationship between individual learning behavior and financial literacy	Supported

Source: Analysed data

Discussion of results

The study findings show that the components of individual learning behavior and financial literacy are related. From the literature review and correlation analysis, the hypotheses (H1, H2, and H3), were supported.

The results in Table 2 suggest that a positive change in individual learning behavior leads to a positive change in financial literacy. This positive relationship between individual learning behavior and financial literacy of students calls for improvement of learning about the management of their finances. In addition, the results indicate presence of a significant positive relationship between meaning-oriented learning behavior and financial literacy: ($r = 0.345^{**}$, $p < 0.01$). The results again imply that a positive change in meaning-oriented learning behavior leads to a positive change in financial literacy. Further-still, the results show a significant positive association between instruction oriented learning behavior and financial literacy practice: ($r = 0.446^{**}$, $p < 0.01$). This result suggests that a positive change in instruction oriented learning behavior leads to a positive change in financial literacy. Although the correlation results do not exceed 0.80 as per threshold given in the guidance by Field (2009) that identify multicollinearity issues, the analysis was univariate which ignores control for other factors that would simplify interpretation of results. Therefore, future studies should take into account the need to undertake a multivariate test of the variables in this study.

To the contrary, the current study only focused on two components represented in HI, and H2 that were the major focus of this study. The other components: emergent learning oriented behavior and planned learning behavior were not the focus of this study although they could be positively and significantly related to financial literacy of university students. Given the objective of the study: to investigate whether the two components of individual learning behavior: meaning oriented learning and instruction-oriented learning, plus the global variable individual learning behavior matter in financial literacy among university students in the final year of their study, the results may be different in other settings. For example; in a case where private students are investigated, different results might be found. Again, the results could change when other tests are undertaken. Nonetheless, the results indicate that government sponsored students need to embark on instruction oriented learning to successfully utilise their finances, as they make meaning out of the information related to finances that they receive. This is because the results suggest that as individual learning behavior increases, there is increase in financial literacy of university students in form of instruction orientated learning and meaning oriented learning behaviors.

This is supported by Mireku et al. (2023) who indicates that one's individual behavior is a function of the level of financial awareness possessed. Levmore (2012) points out that several university students fall in traps of get-rich arrangements which may involve diverting tuition funds to other unplanned projects. This is when there is minimal individual learning of students and matters to do with managing finances. This is supported by Van Antwerpen, and Van Schalkwyk, (2024) that highlight challenges regarding students funding not only in Ghana: a developing country but even in developed countries. This may be stemming from the students' inability to make informed decisions. This implies that a number of those students in both developing and developed countries lack adequate awareness to be able to make decisions that positively impact their lives and those of their families. This thus calls for meaning making learning where one is able to search for sense in their financial experiences for sound financial implementation as indicated in the results in Table 2.

The current study thus comes in to contribute to the crucial empirical evidence which however, contradict the earlier findings on individual learning behavior components where Kusemererwa et al. (2020) found that instruction-oriented learning behavior was not significantly associated with self-employment practice.

Conclusions

Overall, the results demonstrate that instruction oriented learning behavior has a significant association with financial literacy of university students on government sponsorship. As a means of accumulating knowledge relating to financial literacy among university students and specifically in line with individual learning behavior, this study highlights another angle emphasising the importance of instruction oriented learning and meaning oriented learning behaviors. This is intended to enhance the success of university students in not only their academic goals but also in pursuit of other finance related activities in families and the nation. Instructions to students greatly support their compliance with authorities in addition to various requirements of universities and thus are an important tool in supporting their success as they boost their financial literacy.

Therefore, if government sponsored university students are to succeed in managing their finances at university, they should embrace not only instruction oriented learning but also meaning oriented learning behaviors. The results thus suggest that government sponsored university students need to not only comply with instructions issued to them from time to time but also endeavor to understand and attach meaning to what they are required to do to ensure they responsibly manage their finances.

Recommendations

There are a number of implications in this paper that form the foundation of the suggested recommendations. First, there is a chance to enhance academics given the current findings about the two components of individual learning behavior in relation to financial literacy practice among university students. In fact both instruction oriented learning and meaning oriented learning behaviors have a

positive significant relationship with financial literacy. Therefore, this research may be used by those individual government sponsored university students who wish to enhance their financial literacy knowledge and skills so as to survive in this changing financial environment. Government should help students in public universities to improve financial literacy through documented guidance in addition to instituting mechanisms that entice their own innovations to learning. This knowledge will enable them to empower not only their families but their communities and overall economic growth of their nations.

This study only focused on two individual learning behavior components as noted above and how they support financial literacy of government sponsored university students in Uganda and thus it is highly likely that the results may not be generalised to other groups in different regions. This therefore calls for further research among other target groups and settings. This implies that there is a need to undertake further studies in other settings given the above results not ignoring the other dimensions of individual learning behavior: emergent learning and planned learning that are not covered in this study. Further, only quantitative methodology was used, thus the need to combine both qualitative and quantitative to ascertain the outcome as out as far as their understanding of financial literacy practice is concerned.

References

Ansar, S., Klapper, L., & Singer, D. (2023). The importance of financial education for the effective use of formal financial services. Journal of Financial Literacy and Wellbeing, 1(1), 28-46.

Atkinson, A., & Messy, F. A. (2011). Assessing financial literacy in 12 countries: an OECD/INFE international pilot exercise. Journal of Pension Economics & Finance, 10(4), 657-665.

Atkinson, A., & Messy, F. A. (2012). Measuring financial literacy: Results of the OECD/International Network on Financial Education (INFE) pilot study. OECD Working Papers on Finance, Insurance and Private Pensions, No. 15, OECD Publishing.

Bianco, C. A., & Bosco, S. M. (2011). Financial literacy: What are business Schools teaching? *Journal of global business Management* 7(1): 1-8. https://docs.rwu.edu/gsbfp

Bitature, P. (2010). Financial literacy should be priority to Ugandans. Daily Monitor publishers, Kampala.

Bongomin, O. C.G, Munene, J. C., Ntayi. J. M., & .Akol. M. C. (2017). Financial literacy in emerging economies". Do all components matter for financial inclusion? *Managerial finance.* 43 (12), 1310-1331.

Dantas, L.A. & Cunha, A. (2020). An integrative debate on learning styles and the learning process: Integrated research at interdisciplinary research centre for education and development. Social sciences and humanities open, 2 (100017)

Duque, L. C. (2014). A framework for analysing higher education performance: students' satisfaction, perceived learning outcomes, and dropout intentions. *Total quality management & business excellence*, *25*(1-2), 1-21.

Farrell, L., Fry, T. R., & Risse, L. (2016). The significance of financial self-efficacy in explaining women's personal finance behaviour. *Journal of economic psychology*, *54*, 85-99.

Fernandes, D., Lynch Jr, J. G., & Netemeyer, R. G. (2014). Financial literacy, financial education, and downstream financial behaviors. *Management science*, *60*(8), 1861-1883.

Field A.P. (2009). Discovering statistics using SPSS. Sage: London.

Garg, N., & Singh, S. (2018). Financial literacy among youth, International Journal of social economics, 45(1), 173-186.

Goldstein, J., Hazy, J., & Lichtenstein, B. (2010). *Complexity and the nexus of leadership: Leveraging nonlinear science to create ecologies of innovation*. Springer.

Grimes, P.W, Rogers, K. E., & Smith, R.C. (2010). High school economic education and access to financial services. *Journal of consumer affairs*, 44(2), 317-335.

Hair Jr, J. F., Matthews, L. M., Matthews, R. L., & Sarstedt, M. (2017). PLS-SEM or CB-SEM: updated guidelines on which method to use. *International Journal of multivariate data analysis*, *1*(2), 107-123.

Heaven, P. C.L., & Ciarrochi, J., (2012). When IQ is not everything: Intelligence, personality and academic performance at school. *Personality and Individual differences.* 53(4) 518-522

Herawati, N. T., N., Candiasa, I. M., Yadnyana, I. K., & Suharsono, N. (2018). Factors that influence financial behaviour among accounting students in Bali; *International Journal of Business Administration.* 9 (3), 30-38.

Honey, P., & Mumford, A. (1992). The manual of learning styles. Berkshire: Peter Honey Publications.

Huston, S. J. (2012). Financial literacy and the cost of borrowing. International Journal of Consumer Studies, 36: 566-572. https://doi.org/10.1111/j.1470-6431.2012.01122.x

Kamunge, M. S., Njeru, A., & Tirimba, O. I. (2014). Factors affecting the performance of small and micro enterprises in Limuru Town Market of Kiambu County, Kenya. *International Journal of scientific and research publications.* 4(12), 1-20.

Keith, N., Unger. J. M., Rauch, A., & Frese, M. (2016). Informal learning and enterprise success: A longitudinal study of deliberate practice among small business owners. *Applied psychology*.65 (3), 515-540.

Klapper, L., Lusardi, A. & van Oudheusden, P., (2016). Financial literacy around the world: Insights from Standard & Poor's Rating Services Global Financial Literacy Survey- Word Bank Washington DC: World Bank, 2, 218-237.

Koomson, I., Ansong, D., Okumu, M., & Achulo, S. (2023). Effect of financial on Poverty reduction across Kenya, Tanzania and Uganda. *Global Social Welfare.* 10(1), 93-103.

Kusemererwa, C., Munene. J. C., Laura, O.A., & Balunywa, J. W. (2020). Individual learning behavior: do all components matter for self-employment practice among youth in Uganda?, *Journal of Enterprising Communities. People and places in the Global Economy*, 14 (3), 373-396.

Kyeyune, G. N., & Ntayi, J. M. (2025). Empowering rural communities: the role of financial literacy and management in sustainable development. Frontiers in Human Dynamics, 6, 1424126.

Lantara, W. N., & Kartini, N. K. R. (2015). Financial literacy among university students: Empirical evidence from Indonesia. *Journal of Indonesian Economy and Business: JIEB,*. 30 (3), 247.

Levmore, S. (2012). Rethinking Ponze-scheme Remedies and out of Bankruptcy. BUL Rev, 92, 969.

Lusardi, A. (2019). Financial literacy and the need for financial education: evidence and implications. *Swiss journal of economics and statistics.* 155 (1).

Lusardi, A., & Messy, F. A. (2023). The importance of financial literacy and financial wellbeing. *Journal of financial*

literacy and wellbeing (1), 1-11.
Lusardi, A, Mitchell, O. S., & Curto, V. (2010). Financial literacy among the young. *Journal of consumer affairs,* 44(2), 358-380.
Lusardi, A., & Mitchell, O. S. (2014). The economic importance of financial literacy: Theory and evidence '*Journal of Economic Literature*, 52(1), 5-44.
Lusardi, A., Mitchell. O. S., & Oggero. N. (2020). Debt and financial vulnerability on the verge of retirement" 52 (5), 1005-10034. *Journal of money, Credit and Banking*. 52(5), 1005-1034.
Mafabi, S., Munene, J., & Ntayi, J. (2012). Knowledge management and organizational resilience: Organizational innovation as a mediator in Uganda parastatals, *Journal of Strategy and Management,*5 (1), 57-80.
Mancone, S., Tosti, B., Corrado, S., Spica, G., Zanon, A., & Diotaiuti, P. (2024). Youth, money, and behavior: the impact of financial literacy programs. *In Frontiers in Education* (9) 1397060. Frontiers Media SA.
Mandell, L., & Klein, L. S. (2009). The impact of financial literacy education on subsequent financial behavior *Journal of Financial Counselling and planning,* 20 (1), 15-24.
Maniam, V. A. (2015). Learning behavior of managers within the learning organization. *Aust. J. Basic and Appl. Sci*., 9(32), 71-77.
McMillan, E. (2008). Complexity, management and the dynamics of change; *Challenges for practice*. Routledge.
Mellahi, K., & Harris, L, C. (2015). Response rates in business and Management research; an overview of current practice and suggestions for future directions. *British Journal of management*, 27(2), 426-437.
Mindra, R. K. (2016), Behavioral determinants of financial inclusion in Uganda, PhD Thesis, Wits Business School – South Africa
Mindra, R., Moya, M., Zuze, L. T., & Kadongo. O. (2017). Financial self- efficacy: a determinant of financial inclusion. *International Journal of Bank Marketing*, 35(3), 338-353
Mindra, R., & Moya, M. (2017). Financial self-efficacy: a mediator in advancing financial inclusion. *Equality, Diversity and Inclusion: An International Journal*, *36*(2), 128-149.
Mireku, K., Appiah, F., & Agana, J. A. (2023). Is there a link between financial literacy and financial behaviour?. *Cogent Economics & Finance*, *11*(1), 2188712.
Neuman, W. (2014). Social research methods; Qualitative and quantitative approaches. Pearson, Essex, UK
Nidar, S. R., & Bestari, S. (2012). Personal financial literacy among university students (case study at Padjadjaran university students, Bandung, Indonesia- *World Journal of Social Sciences*. 2(4).162 – 171.
Nkundabanyanga, S. K., Kasozi, D., Nalukenge, I., & Tauringana, V. (2014). Lending terms, financial literacy and formal credit accessibility. International Journal of social Economics, 45(1)173-186).
Normawati, R.A., Rahayu, S. M., & Worokinasih, S. (2022). Financial satisfaction on millennials: Examining the relationship between financial knowledge, digital financial knowledge, financial attitude and financial behavior. Journal of applied management, 20(2), 354-365.
OECD, (2017). Students' financial literacy, 'behavior and expectations' in Pisa 2015 Results (Volume IV) Students financial literacy, OECD Publishing. DOI: https://doi.org/10.1787/9789264270282-10en
Oseifuah, E., Gyekye, A., & Formadi, P. (2018). Financial literacy among undergraduate students: Empirical evidence from Ghana. *Academy of Accounting and Financial Studies Journal*, *22*(6), 1-17.
Oseifuah, E., Gyekye, A., & Formadi, P. (2018). Financial literacy among undergraduate students: Empirical evidence from Ghana. Academy of Accounting and Financial Studies Journal, 22(6), 1-17.
Oseifuah, E. K. (2010) Financial literacy and youth entrepreneurship in South Africa, African journal of economic and management studies, 1 (2), 164-182.
Pang, M.F. (2010) Boosting financial literacy: benefits from learning study. Instr Sci 38, 659–677 (2010). https://doi.org/10.1007/s11251-009-9094-9.
Phellas, C. N., Bloch, A., & Seale, C. (2011). Structured methods: interviews, questionnaires and observation. Researching society and culture, 3(1), 23-32.
Pinjisakikool, T. (2017). The effect of personality traits on households' financial literacy. *Citizenship, Social and Economics Education*, *16*(1), 39-51.
Podsakoff, P. M., MacKenzie S. B., Lee J.Y, & Podsakoff N.P. (2003). Common method biases in behavioral research: a critical review of the literature and recommended remedies. J Appl Psychol. 88(5):879-903.
Potrich, A.C.G., Vieira, K.M. & Kirch, G. (2015), Determinants of financial literacy: analysis of the influence of socioeconomic and demographic variables, *Revista Contabilidade & Finanças*, 26 (69). 362-377.
Refera, K. M., Dhaliwal, K, N., Kaur, J. (2016). Financial literacy for developing countries in Africa: A review of concept, significance and research opportunities. *Journal of African Studies and Development*, 8(1), 1-12.
Remmele, B., & Seeber, G. (2012). Integrative economic education to combine citizenship education and financial literacy, Citizenship, Social and Economic Education, 11(3), 189-201. https://doi.org/10.2304/csee.2012.11.3.189.
Sekakubo, J., Nkurunzinza, G., Muwanga, R., & Tumwine, S. (2022). Financial literacy and financial performance of micro enterprises in developing economies: The mediating role of credit access. *ORSEA JOUR*NAL, 12(1), 115-128.
Sekaran, U. (2003) Research Methods for Business: A Skill-Building Approach. 4th Edition, John Wiley & Sons, New York.
Simarmata, J. E., & Chrisinta, D. (2022). A structural equation modelling approach for college students' financial literacy. *Journal of Research in Mathematics Trends and Technology*, *4*(2), 1-5.
Stolper, O., & Walter, A. (2015). It takes two to Tango: Households' response to financial advice and the role of financial sophistication. Available at SSRN.
Tezel, Z. (2015). Financial education for children and youth. In *Handbook of research on behavioral finance and investment strategies: Decision making in the financial industry* (69-92). IGI Global.
Thompson, J. D., & McMillan, I. C. (2010). Business models: Creating new markets and societal wealth. *Long range planning*, *43*(2-3), 291-307.
Tusuubira, S. (2019). Social-economic factors influencing financial literacy among university students in Uganda. A case study of Makerere university year three students – School of Statistics – (Doctoral dissertation Makerere University.
Uganda (2013). UGANDA FinScope III SURVEY REPORT FINDINGS: unlocking barriers to financial inclusion. *Kampala: Economic Policy Research Centre*.
Urban, C., Schmeiser. M., Collins, J. M., & Brown. A. (2020). The effect of high school personal finance education policies on financial behavior. *Economics of education review* 78. 101786.
Van Antwerpen, S., & Van Schalkwyk, R. D. (2024). Governmental student funding systems for higher education: An international perspective. *The Journal of Quality in Education*, *14*(23), 1-15.

Van der Sluis, L.E. & Poell, R. F. (2002). Learning opportunities and learning behavior: a study among MBA in their early career stage. *Management Learning.* 33 (3), 291-311.

Van Gelderen, M., Van de Sluis, L., & Jansen, P. (2005). Learning opportunities and learning behaviours of small business starters: relations with goal achievement, skill development and satisfaction. *Small Business Economics*, *25*(1), 97-108.

Wilson, R. M., Abraham, A., & Mason, C. L. (2014). The nature of financial literacy. In The Routledge companion to accounting education (pp. 50-80). Routledge.

World Bank. (2017). *Annual report 2016: Ending extreme poverty and promoting shared prosperity in a sustainable manner* (p. 11)., World Bank Group.

Xu, L., & Zia, B. (2012). Financial literacy around the world: an overview of the evidence with practical suggestions for the way forward. *World Bank Policy Research Working Paper*, (6107).

Yamane, T. (1973) Statistics: An Introductory Analysis. 3rd Edition, Harper and Row, New York.

Additional references for further reading

National Planning Authority (NPA). (2021). Human capital development programme: National Development Plan III (2020/21–2024/25). Kampala: Government of Uganda

Pandey, A., Kiran, R., & Sharma, R. K. (2022). Investigating the impact of financial inclusion drivers, financial literacy and financial initiatives in fostering sustainable growth in North India. *Sustainability*, *14*(17), 11061.

Treu, J. (2024). Moving beyond silo thinking: A deductive analysis of financial literacy, financial inclusion, FinTech, and the UN sustainable development Goals. *International Journal of Economics and Finance*, *16*(2), 1-24.

Yurtkur, A. K., Kilic, Y., Bugan, M. F., Dibooglu, S., & Cevik, E. I. (2025). The impact of financial literacy on financial development: A cross-country analysis. Borsa Istanbul Review, 25, 177–191.

Zaimovic, A., Torlakovic, A., Arnaut-Berilo, A., Zaimovic, T., Dedovic, L., & Nuhic Meskovic, M. (2023). Mapping financial literacy: A systematic literature review of determinants and recent trends. *Sustainability*, *15*(12), 9358.