Financial Literacy and Investment Decisions among Pito Brewers in the Upper West Region of Ghana

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Abstract
The study examined the financial literacy levels of pito brewers in the Wa Municipality and how these levels influence respondents' investment decisions, drawing on the prospect theory to explain observed behavioral patterns such as loss aversion and framing effects. A descriptive research design was adopted using primary data through the administration of 120 structured questionnaires to selected pito brewers in the Wa Municipality. Descriptive statistics and factor adequacy tests were employed to analyze financial literacy levels and their nexuses with investment decision-making. The findings revealed that pito brewers possessed a moderate level of financial literacy, which positively influenced their investment decisions. However, most respondents had no formal education and earned discretionary monthly incomes ranging between GH₵1,000 and GH₵3,000. Consistent with the prospect theory, the results suggest that pito brewers exhibit loss-averse behavior, whereby perceived potential losses discourage investment participation more strongly than equivalent gains encourage it. Additionally, investment decisions were found to be sensitive to the framing of financial outcomes, reflecting susceptibility to framing effects. Although financial literacy improved confidence in decision- making, its moderate level was insufficient to reduce risk aversion significantly. The study was limited to pito brewers in the Wa Municipality, which may restrict the generalizability of the findings to other regions or occupational groups within the informal sector. The study highlights the need for targeted financial literacy programs that will not only enhance technical financial knowledge but also address behavioral biases such as loss aversion and framing effects to improve investment participation among informal sector workers in Ghana.

Keywords: *Financial literacy, investment decisions, pito brewers, Upper West Region, Wa municipality.*

1.0   INTRODUCTION

The rapidly evolving business environment demands that investors and entrepreneurs possess sound financial knowledge to make informed decisions that drive income generation and business growth (Alaaraj, 2020). Financial literacy plays a critical role in enabling individuals to navigate complex financial markets and produce effectively, thereby reducing the risk of poor investment choices and financial losses (Fazal, 2017; Akileng et al., 2018). This need is particularly acute in developing economies, where small and medium-sized enterprises (SMEs) often face challenges due to owners' limited understanding of financial management and investment (Akileng et al., 2018).

Globally, financial literacy rates remain low, with significant disparities between developed and developing regions. For instance, African countries report some of the lowest financial literacy levels, with Ghana's progress in financial education still lagging behind expectations (Standard & Poor's, 2014; Oteng, 2019). This deficiency has contributed to numerous financial setbacks for individuals and businesses alike, exemplified by the losses suffered by many Ghanaian traders in fraudulent schemes. Encouraging financial literacy among SMEs is therefore vital, given their substantial contribution to economic activity worldwide (Sabri, 2016).

While previous studies have explored the relationship between financial literacy and investment decisions in various contexts, including investors in the UAE, South Sudan, Greece and Pakistan, there remains a notable lack of research on specific local enterprises in Ghana. Particularly, no studies have examined how financial literacy influences investment decisions among pito brewers in the Wa Municipality. This study seeks to fill this gap by investigating the financial literacy levels of pito brewers and how these impacts their investment choices, providing valuable insights tailored to this unique and understudied segment.

 The impact of financial literacy on investments targeting investors in the UAE and South Sudan, respectively, has been studied in a number of disciplines across global economies. Additionally, studies in Greece (Merikas et al. 2003) have focused on economic factors and individual investor behavior with an emphasis on experienced investors, while in Pakistan (Kaleem et al. 2009) studied the impact of financial advisors' perceptions on portfolio management. Finally, Owusu (2015) evaluated the level of financial literacy among teachers in Ghana's Sekyere East District, Ashanti Region. This further demonstrates that, there is little or no research regarding the level of financial literacy and how financial literacy impact investment choices of pito brewers in the Wa Municipality of the Upper West Region of Ghana. This study aims to explore this topic to close the

research gap, anchored in the prospect theory, which explains how individuals make financial decisions under risk and uncertainty. The outcome of this research will serve the interest of relevant stakeholders. Specifically, the following are the study's objectives:

   i)   To assess the level of financial literacy among pito brewers in the Wa Municipality of the Upper West Region of Ghana.

   ii)   To investigate the impact of financial literacy on the investment choices of pito brewers in the Wa Municipality of the Upper West Region, Ghana.

To accomplish the aforementioned goals, the research posed the following queries:

   i)   What is the level of financial literacy of pito brewers in the Wa Municipality of the Upper West Region, Ghana?

   ii)   What is the impact of financial literacy on investment decisions among pito brewers in the Wa Municipality of the Upper West Region of Ghana?

This study offers actionable insights for policymakers, financial educators and support organizations aiming to improve financial literacy among pito brewers in the Wa Municipality. By identifying gaps in financial knowledge and its effects on investment decisions, training programs and financial services can be developed to enhance businesses sustainability and growth. Additionally, the findings can help pito brewers make more informed investment choices, reducing financial losses and fostering economic empowerment within the community.

The research expands the existing body of knowledge on financial literacy and investment decisions by focusing on a specific and under-researched group, pito brewers in a developing country context. It contributes to understanding how financial literacy influences investment decisions in informal and small-scale enterprises, enriching theories related to financial decision-making, behavioral finance, and SME development in emerging economies. This study also provides a foundation for future research on niche sectors within Ghana and similar regions across Africa.

2.0   LITERATURE REVIEW
2.1   Components of Financial Literacy
2.1.1 Financial Knowledge
The term "financial knowledge" refers to how well people understand some essential components of finance, which may affect their financial well-being. Financial literacy is essential to engage and educate consumers about money so that they can evaluate products and make informed decisions (Mwangi and Kihiu, 2012). It addresses issues such as inflation, interest rates, exchange rates,

opportunity costs, and consumer awareness of financial goods available on the market. Financial literacy and financial knowledge are not synonymous; despite they are occasionally used interchangeably. Financial knowledge, according to Chaulagain (2015), is part of financial literacy that is obtained by financial education. Johnson and Sherraden (2007) define financial knowledge as the capacity to identify financial concerns, discuss money and financial matters without feeling uncomfortable, plan for the future and fully react to life events that influence daily financial decisions, such as those in the general economy. Planning for retirement or other long-term investments, deciding how and when to save and spend and assessing costs before making a major purchase are just a few examples of the financial decisions that people with strong financial knowledge and decision-making skills can make. According to Christelis et al. (2010), a person with financial literacy understands risk diversification and builds their portfolios with a mix of debt and equity. Sobhesh et al. (2012), explain financial literacy to include knowing how interest is calculated, how inflation and return are related, how inflation and expenses are related, how risk and return are related and how important diversification is for risk management. To get the best outcomes, they advise customers to have at least a rudimentary awareness of financial literacy.

2.1.2 Financial Management Skills
A skill is defined as an individual's aptitude, competency, capability or proficiency in performing a task and making judgment. Financial skills include financial numeracy, financial planning, budgeting, record keeping and retirement planning (Ozdemir et al. 2015}. Knowledge is insufficient without financial management skills and ability (Remund, 2010). This demonstrates that money management skills are equally vital as financial knowledge. Numeracy is more closely tied to the ability to calculate interest rates on savings and credit, taxes on business revenues, discount gains and refunds, a penalty for service charges paid, and so on. According to Lusardi (2012), financial literacy and numeracy are critical life skills for people. Financial management is a critical component of financial literacy and as such, it deserves special attention. Money management is extremely important but challenging when compared to making money (Chaulagain, 2018). External factors influencing fund management include revenue sources, the hierarchy of human wants, and the market value of products and services (Chaulagain, 2018).

2.1.3 Financial Behavior
Several studies have shown that behavior is sometimes difficult to quantify, and financial behavior is no exception. Individuals' financial behavior is vital but difficult to understand, quantify and measure. Behavior is defined as a

demonstration of activities that others can observe. Financial behavior is how an individual handles their financial duties and spending and it can be monitored or measured on a daily, monthly, or any other bases. Financial behavior is largely concerned with money and income, as well as the activities conducted to manage money, which can affect an individual's financial well-being. The principal use of money is at the operational level of financial behavior. Conscious behavior gradually manifests itself in decision-making, critical thinking, evaluating opportunity costs, exploring waste minimization solutions and so on. Research has established a link between financial conduct and financial literacy. As a result, an individual with high financial literacy may exhibit high financial behavior, including involvement in formal financial market activities and stock market operations (Van Rooij et al., 2008). People establish the habit of saving money and paying bills on time as a result of their strong financial behavior. This high financial behavior translates into the individual being cautious and thoughtful, evaluating all financial products before making an investment decision (Atkinson and Messy, 2012).

2.2 Determinants of Financial Literacy
2.2.1 Age and Financial Literacy
There have been numerous studies conducted on the effect of age on financial literacy. While some investigations find a link between an individual's age and their level of financial literacy, others discover the inverse. According to Finke et al. (2016) financial literacy among the elderly in the United States under the age of 60 reports a positive correlation between age and financial literacy. Finke et al. (2016) claimed that a reduction in fluid and crystallized intelligence in old age can impair the ability to handle money successfully. Brown and Graf (2013) found a favorable association between age and financial knowledge when assessing Swiss families' financial knowledge and its impact on their retirement and investing decisions. Similarly, Lusardi (2015) collected data from 18 nations using questionnaires. The study targeted college students with an average age of 15 years. The survey revealed that a significant number of students have very basic understanding and cannot be categorized as financially literate. Agarwal et al. (2009) investigate how individuals might make the finest decisions and steer clear of financial blunders. The study found that middle-aged people are less likely than older people to make financial blunders, indicating that the age distribution of financial literacy is U-shaped. Despite these findings, other research has produced contradicting results. In their study of the drivers of household saving in Kenya, Kibet and Ouma (2009) discovered a negative association between age and individual savings. The implication is that, as a person grows older; his understanding of financial activities and judgments

lessens. Hinga (2014) discovered no significant relationship between age and financial literacy in his study of Nairobi employees' financial literacy levels.

2.2.2 Gender and Financial Literacy

Gender may also have an impact on financial literacy. Chen and Volpe (2002) for example, suggested that gender is a crucial factor influencing financial literacy. The study's findings revealed that women are more risk-averse when making financial decisions than males and as a result, they are less financially educated. The study also found that women lack confidence in comparison to men, which may explain why males have more financial expertise than women. According to the survey, variables that are likely to impair women's financial abilities include lack of financial understanding, Reluctance to take chances and a lack of confidence. Possible causes for women's lack of confidence and risk-taking in financial abilities include their established societal roles. Anokye (2017) investigated gender disparity in financial literacy among a homogeneous group of students and found no differences between male and female financial literacy levels. This is because gender disparity is statistically not significant in a homogeneous group, meaning that any differences that seem to exist are caused by other factors.

2.2.3 Educational Attainment and Financial Literacy

Several studies have described the relationship that exists between a person's educational attainment and its impact on their financial literacy level. Most academics agree that an individual's educational attainment influences their level of financial literacy. According to a study by Akowuah's (2019) there is a positive association between educational achievement and financial literacy in most circumstances. This means that the more knowledge a person gets through financial education, the greater their chances of being financially literate. Lusardi and Mitchell (2014) argue that because educated persons have more possibilities to enroll in and complete money management courses, they are more likely to be financially literate. This supports the claim that financial literacy is favorably related to one's educational degree. A study by (Akowuah 2019) and (Kadoya and Khan 2017) also believe that persons with greater levels of education have better cognitive skills, making it easier for them to understand and apply finance-related concepts. According to Ocansey (2022), people with noticeably education exhibit indications of improved financial comprehension and a high degree of financial awareness. This may have to do with the fact that when one climbs the academic ladder; they are exposed to new financial ideas, settings and people that encourage them to become more financially literate so they can make prudent financial decisions. However, research by Chen and Volpe (2002) and Oteng

(2019) did not find a significant positive correlation between educational achievement and financial literacy.

2.2.4 Financial Literacy and it Impact on Investment Decisions

Investment can be defined as committing cash to an enterprise for a set length of time in order to receive returns in the form of interest, dividends, or capital gains. It can also be described as the exchange of present funds for future advantages. (Reilly & Brown, 2006; Popescu, 2008). Investment decisions are defined by Mishkin and Eakin (2007) as the distribution of capital over a predetermined time period to a particular asset with the hope of achieving a higher rate of return. Making wise investment decisions that will benefit one's trading activities or the firm requires some degree of financial knowledge because these decisions center on allocating capital to assets that will provide the highest return for a particular firm or business over time. People with high financial literacy are more likely to make wise investments in India and Indonesia, according to Lusardi and Mitchell (2014), who show a robust correlation between financial literacy and investment decisions in these two economies. According to the survey, wealthier households exhibited some financial understanding, whereas impoverished households demonstrate significant level of financial illiteracy.

2.3 Empirical Review

Numerous empirical studies have explored the relationship between financial literacy and investment decisions across diverse socio-economic and cultural contexts, revealing nuanced insights and persistent challenges. Raut (2020) examined Indian households' financial literacy levels and found that investment behavior was influenced more by perceptions of future price volatility and social pressures than by financial knowledge. This indicates that conventional financial literacy alone may not fully explain investment patterns in culturally distinct settings, highlighting the need for education that aligns with local lifestyles.

In a related context, Brown and Graf (2012) investigated financial literacy among low-income and immigrant households, revealing that despite some awareness of key financial concepts, practical application was limited, especially among younger household members. Their findings suggest that knowledge alone does not guarantee effective financial decision-making, reinforcing the importance of contextual and demographic factors.

Oteng (2019) further emphasized the broader socio-economic impact of financial literacy, arguing that it does not only empowers' individuals to make informed decisions but also alleviates governmental and private sector burdens. This

underscores the potential macroeconomic benefits of improved financial education, particularly in developing countries.

Research in Bahrain by Abdeldayem (2016) highlighted a significant gender disparity in financial literacy and pointed to systemic deficiencies in financial education, advocating for government-managed financial literacy programs as a public good. Similarly, studies in Kenya by Musundi (2014) and Amisi (2012) revealed that while financial literacy correlates with investment decisions, it does not ensure optimal choices without practical application and stable economic conditions.

In Ghana, Ocansey (2022) reported that higher educational levels correlate with greater financial literacy, but paradoxically, financial literacy showed a negative correlation with household savings and investment decisions possibly due to socio-economic factors such as income concealment among lower-income groups. Dzilah (2021) found moderate financial literacy among public school teachers but noted that literacy levels did not significantly influence their investment behavior, suggesting that other variables may mediate this nexus.

Despite empirical researches on financial literacy and investment decisions across the globe, there is limited empirical research focusing on informal-sector entrepreneurs such as pito brewers, particularly in the Upper West Region of Ghana. Most studies emphasize literacy measurement rather than practical application and behavioral mechanisms. Furthermore, the contradictory findings regarding the impact of financial literacy on investment behavior highlight the need for context-specific research. This study addresses this gap by assessing the level of financial literacy among pito brewers in the Wa Municipality and how financial literacy influences their investment choices while the prospect theory is use to explain observed behavioral outcomes. This theory provides a useful framework for understanding why financially literate individuals may still make suboptimal investment decisions. The theory suggests that individuals are loss-averse, evaluate outcomes relative to reference points and are influenced by perceived risks rather than objective probabilities. For pito brewers, whose incomes are uncertain and influenced by market demand and seasonal factors, investment decisions are likely shaped by fear of losses, social norms and short-term survival needs. This explains why higher financial literacy may not always translate into increased investment or savings, as observed in some empirical studies.

2.4 Description of Pito Preparation

Pito is mostly brewed in northern Ghana using guinea corn (sorghum) or sometimes millet. The grains are soaked in water for about one to two days and then spread out to germinate. Germination helps convert the starch in the grains into sugars needed for fermentation. After sprouting, the grains are sun-dried and ground into flour. The flour is mixed with water to form a thick mash, which is boiled for several hours. Boiling extracts, the sugars and destroys unwanted bacteria. The mash is then allowed to cool, after which a portion of previously fermented pito or natural yeast is added. The mixture is left to ferment for one to three days, during which yeast converts the sugars into alcohol. Finally, the fermented mixture is strained to remove solid particles, leaving a brownish, slightly sour alcoholic drink known as pito.

2.5 Theoretical Review

Financial literacy refers to an individual's ability to understand financial concepts, evaluate risk, and make informed financial decisions (Lusardi & Mitchell, 2014). Empirical studies demonstrate that financially literate persons are more likely to participate in formal financial markets, diversify their financial resources and plan for long-term financial security (Van Rooij, Lusardi, & Alessie, 2011).

From the prospective of prospect theory, higher financial literacy enhances individuals' ability to process probabilistic data and assesse long-term payoffs, thereby reducing reliance on heuristics and emotional responses to potential losses. In contrast, individuals with low financial literacy are more vulnerable to loss aversion, framing effects and short-term evaluation of outcomes (Thaler, 2016). The prospect theory predicts that individuals disproportionately avoid losses relative to gains. Among pito brewers, income instability and limited financial buffers may amplify this tendency, leading to avoidance of investment opportunities perceived as risky. Based on this characteristic of the prospect theory, the study hypothesized that;

H1: Pito brewers will exhibit loss-averse investment behavior, such that perceived potential losses will have a stronger negative influence on investment participation than equivalent perceived gains have a positive influence.

According to the prospect theory, individuals respond differently to identical investment outcomes depending on whether they are framed as gains or losses (Kahneman & Tversky, 1979). In low-literacy settings, framing effects are expected to be particularly stronger. Consequently, the study predicts that;

H2: Pito brewers' investment decisions will differ significantly when identical investment outcomes are framed as gains versus losses.

The prospect theory again suggests that, uncertainty increases risk aversion, especially among individuals who poorly understand probabilities. Financial literacy enhances risk comprehension and reduces excessive avoidance of uncertain but profitable investments. Hence this study predicts that;

H3: Higher financial literacy is associated with lower risk aversion under uncertainty and a greater likelihood of engaging in formal investment activities.

2.6   Conceptual Framework
The framework that will guide this research is outlined below. The framework included certain metrics or components that indicate the amount of financial literacy and how these aspects influence people's investment decisions.
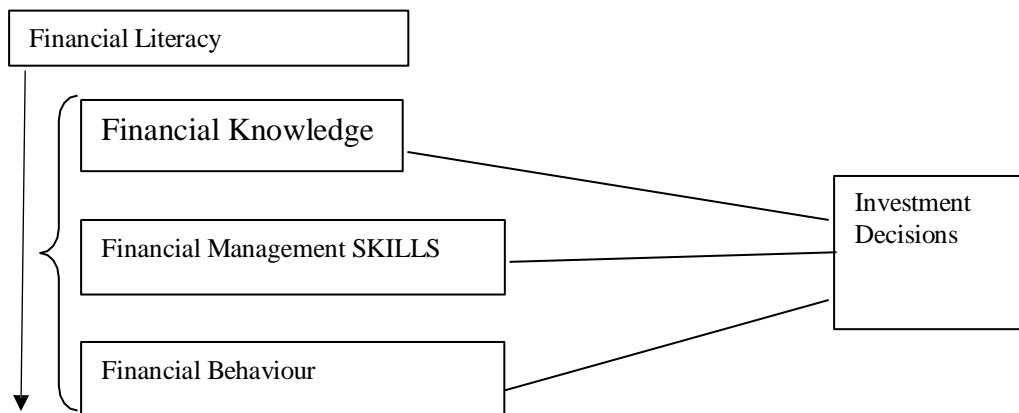

Figure 1: The nexus between financial literacy and investment decisions
Source: Authors' construct 2025

3.0   RESEARCH METHODOLOGY
3.1   Description of the Research Area
The Upper West Region is one of the sixteen regions of Ghana and is located in the north-western part of the country. It shares borders with Burkina Faso to the north**,** Upper East Region to the east**,** Savannah Region to the south**,** and Côte d'Ivoire to the west. The region has guinea savannah vegetation, characterized by short grasses and scattered trees. The climate is generally hot and dry, with a long dry season and a short rainy season. Farming is the main occupation of the people in the region. Common crops grown include millet, sorghum, maize, groundnuts and beans. Livestock rearing is also prevalent in the region. The

region is known for its rich cultural heritage, traditional festivals and strong communal life. The capital of the Upper West Region is Wa**.** The Wa Municipality is the administrative and commercial center of the Upper West Region. It is located in the southern part of the region and serves as an important hub for trade, education and health services. The municipality has better infrastructure compared to many surrounding districts, including schools, hospitals, markets and road networks. The people of Wa Municipality are mainly engaged in trading, farming, public service and small-scale businesses**.** Major ethnic groups include the Wala, Dagaaba and Sissala while Islam and Christianity are the main religious practices. Wa Municipality also hosts important institutions such as tertiary schools and regional government offices, making it a key center for development in the Upper West Region.

3.2   Data Collection and Sample Selection

According to NBSSI (2018), there are about 2,600 SMEs in the Wa Municipality. This agency could not provide a specific number of people who engaged in pito brewing in the Municipality. To choose the sample size, the study employed a non-probability sampling strategy, more precisely the convenience sampling method that was informed by the central limit theorem. According to this theory, thirty (30) respondents from a population is sufficient and accurately represents a large sample frame. As result the study randomly sampled 120 pito brewers within the Municipality with a 100% respondent's rate. The authors distributed the questionnaire among the respondents and received the questionnaire after two weeks. The questionnaires were completed by way of ticking from a set of options on a five-point Likert scale.

3.3   Source of Data and Types of Data

The data for this study was gathered from a primary source. The authors used questionnaire as the data gathering tool. Given the nature of the research methodology and approach, the study collected data using closed ended questionnaires in order to meet the study's aim. The questionnaire was designed to guarantee that all respondents understood it and to accurately measure the research objectives. The questionnaire was made up of six sections; Section "A" elicited demographic information of participants, section "B" solicited for the financial knowledge of respondents, section "C" seeks for financial management skills of respondents, section "D" seeks for financial behavior of participants, section "E" solicits for investment decisions of respondents and section "F" measures the financial literacy and investment decisions of respondents.

3.4   Model Specification

The research analyzed the data using a descriptive research method with SMART Partial Least Square (PLS) version 4 and Scientific Product for the Social Sciences (SPSS) as the software for the study analysis. The link between the dependent and independent variables was determined using the regression model shown below.

$$Y = \beta_0 + \beta_1 FK + \beta_2 FMS + \beta_3 FB + \varepsilon$$

Where;
Y: Dependent Variable (Investment Decision)
β_0: Constant Term
β_1, β_2, β_3: Coefficient to be determined
FK: Financial Knowledge
FMS: Financial Management Skills
FB: Financial Behavior
ε: error

3.5   Research Ethical Consideration

Research ethics were properly followed during the entire survey data collection procedure. The authors explained the study objective and asked if they would like to participate or not, all survey respondents were asked for their verbal agreement. The respondents voluntarily filled out the survey after being assured by the researchers that it was intended only for academic reasons and to inform policy regarding their financial investment decisions.

4.0   RESULTS AND DISCUSSION
4.1   Demographic Characteristics

The demographic details of the study participants are shown in this section. These include age, gender, years of experience in the field, years of education, disposable income, and membership with a particular faith. The study found that all the respondents were Females (120) and all responded to the questionnaire as contained in Table 1 above.   The respondents are all females because pito brewing in Ghana is considered as an occupation for females; while farming and white-collar jobs are for both genders in the Municipality. Chen and Volpe (2002); Osman (2019) found that gender influences financial literacy. However, Anokye (2017) study contradicts that gender influence financial literacy. The findings indicated that the age group of 51- 60 of the sample have the highest frequency (42.5%). This is followed by respondents within the age bracket of 41- 50 (34.17) while (15.8%) falls within the age bracket of 31- 40 years and age bracket of 60 and above is (7.5%). The lowest frequency recorded was 0% which constituted

brewers from 21- 30 years as well as under 20 years. This implies that the pito brewers in the Municipality are mostly old females. (Lusardi (2015); Agarwal et al. (2009) and Finke et al. (2016) studies found that age has a significant influence in the financial literacy of individuals. However, Kibet and Ouman; Hinga (2014) studies contradict the above study findings. The educational qualification as displayed in Table1 shows that most respondents had no formal education and few had formal education. Majority of the respondents' (60%) have no formal education and this is followed closely by primary school with (26.67%). 13.33% percent was recorded for JHS. Nil for SHS, Diploma, Bachelor's degree and Master's degree. Additionally, it was reported that 1, 26.67% (32) of respondents earned income from Ghc1, 000 to Ghc2, 000 followed by 21.67 % (26) respondents earned between Ghc2, 000- Ghc3, 000 while 18.33% of the respondents earn between Ghs500- Ghs1, 000. Given a household size of 3.8 which is about 4 persons as reported by the Ghana Living Standard Survey GLSS7 report (GSS, 2019) indicate that a household requires $235.6 for survival on basic needs. This translates into Ghs3, 662.39 when converted at the prevailing exchange rate of Ghs15.544935 to $1.00. As a result of earning less than Ghs3001, about 82.5% of our sample can be considered to be impoverished. Given that their income hardly covers their essential expenses, this may have an impact on their financial conduct. Findings indicate that about 46.67% of the respondents spent 16- 20 years in this occupation followed by 32.5 % with age brackets from 21- 25 years, 8.3% respondents representing 11- 15 and 6- 10 years. The lowest frequency recorded was 4.17% which constituted pito brewers who spent 1- 5 years in the industry. 80 percent of the respondents represent Christianity while 20% was recorded for African traditional religion and 0%t for the Islamic religion. This indicates that most of the respondents are Christians. An overview of the respondents' demographic traits is provided in Table 1 below.

Table 1: Demographic Information

Gender		Frequency	Percent
	Female	120	100
	Male	0	0
	Total	**120**	**100**
Age	51- 60	51	42.5
	41- 50	41	34.17
	31- 40	19	15.83
	Above 60	9	7.5
	21- 30	0	0
	Under 20	0	0
	Total	**120**	**100**
Educational Level	No Formal Education	72	60
	Primary School	32	26.67
	JHS	16	13.33
	SHS	0	0
	Diploma	0	0
	Bachelor Degree	0	0
	Master's Degree and above	0	0
	Total	**120**	**100**
Disposable Income	1001- 2000	32	26.67
	2001- 3000	26	21.67
	500- 1000	22	18.33
	3000 and above	21	17.5
	Below 500	19	15.83
	Total	**120**	**100**
Years Spent in The Pito Industry	16- 20	56	46.67
	21- 25	39	32.5
	11- 15	10	8.33
	6- 10	10	8.33
	1-5	5	4.17
	Total	**120**	**100**
Religious of Affiliation	Christianity	96	80
	African Tradition	24	20
	Islam	0	0
	Total	**120**	**100**

4.2 Test for Reliability

The Cronbach's Alpha test was used to assess the reliability and internal consistency of the study's independent and dependent variables. The Cronbach's Alpha test must be greater than 0.7 for the variables in the gathered data to be considered reliable. Table 2 below displays the Cronbach's Alpha values for the independent and dependent variables.

Table 2: Reliability Test Result

Variables	Reliability Statistics	
	Cronbach's Alpha	**No. of items**
Financial Knowledge	0.963	10
Financial Management Skills	0.868	5
Financial Behavior	0.936	6
Investment Decision	0.973	8

4.3 Level of Financial Literacy

The evaluation of the municipality's pito brewers' financial conduct, financial management abilities, and financial knowledge is presented in this part. In an effort to address the first research question, this will ascertain the degree of financial literacy among pito brewers in the Wa Municipality. The Bartlett and Kaiser-Meyer-Olkin (KMO) tests were used to see if the data possessed the qualities needed for the factor analyzed. A KMO values between 0.8 and 1 are significant for the Bartlett's test below 0.05 suggesting the correlation among the variables are appropriate for the study analysis.Financial literacy on Investment Decisions. Table 3 shows the outcome of the assessment of financial literacy of pito brewers in the Wa municipality. On a Likert scale of 1- 5 the pito brewers in the Wa municipality agreed (3.941 approximately 4) to be knowledgeable enough to make financial decision and had no idea of opening a bank account. However, their ability to calculate interest rates was seen to be moderate. Also, the pito brewers asserted that they don't spend more than their income and were confident in their financial decision makings. Averagely, the pito brewers were not certain about having financial knowledge or having the desire for financial management skills or being of good financial behavior. This implies that the level of financial literacy among the pito brewers in the Municipality is moderate. A Bartlett's test was conducted to determine the significance of this analysis. The test statistic of a value (p-value) of 0.001 was obtained and this was less than the 0.05 significance level. Hence, the analysis is significant. The KMO test also shows a value of 0.931, indicating the appropriateness of the data analyzed. (Amisi (2012) and Dzilah (2021) studies have findings related to our results. However, Abdeldayem (2016); Musundi (2014) studies contradict the findings of the current study.

Table 3: Level of Financial Literacy of respondents

	Items	Mean	Standard Deviation
FK1	I have general knowledge of the profitability of the pito industry	3.208	0.532
FK2	I have knowledge concerning the availability of credit facilities	2.258	1.240
FK3	I can easily compute interest rate	3.475	0.755
FK4	I can easily understand simply financial terms	3.466	1.060
FK5	I am knowledgeable about investment risk	2.616	1.433
FK6	I am knowledgeable about financial risk	2.716	1.433
FK7	I am knowledgeable enough to make a good financial decision	3.941	0.523
FK8	I am mathematically inclined to compute all financial dealings	3.750	1.409
FK9	I know the requirements for opening an account	3.100	1.072
FK10	I am knowledgeable about insurance products	1.616	0.757
FM1	I do have the ability to prepare a personal budget	3.608	1.124
FM2	I do have the ability to decide what financial services to choose	3.075	0.637
FM3	I do have the ability to accurately calculate the returns on the investment I choose	2.250	1.403
FM4	I do have the ability to accurately determine the cost of my financial dealings	3.783	0.675
FM5	I am capable of evaluating different financial products and services	2.975	0.509
FB1	My income each month is regular and reliable	3.400	1.095
FB2	I normally choose products that do not suit my needs and conditions	3.141	0.946
FB3	I maintain adequate financial records	2.958	0.792
FB4	I normally spend more than my income	2.425	0.706
FB5	I normally borrow to balance my personal budget	1.950	1.091
FB6	I am confident in my financial decision making	4.058	0.639
	Overall Mean	**3.037**	
	Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.931
	Bartlett's Test of Sphericity	Approx. Chi-Square	5528.529
		Df	210
		Sig.	.001

4.4 Financial literacy on Investment Decisions

The sample size is sufficient for the study analysis, according to Table 4's KMO test result of 0.895. The Bartlett's test also showed a p-value of 0.001 which is less than the 0.05 significance level. This reveals that the Bartlett's test statistics is significant and therefore is desirable. The overall mean score for the investment decisions of the pito brewers was 2.851 which can be approximated to 3. On the Likert scale of 1-5 which was established to measure the investment decisions of

the pito brewers, the value 3 reveals that the pito brewers in the municipality are moderate in considering economic expectations and information search when making investment decisions. This study results are in line with a study by Ocansey (2022). This implies that information about the pito market is moderately considered before making investment decisions. This demonstrates a moderate decision-making behavior that translates into making a moderate investment decision. Brown and Graf (2012) study findings are in line with our findings. However, Raut (2020) and Abdeldayem (2016) discovered some contradictions.

Table 4: Financial literacy on Investment Decisions

	Items	Mean	Standard Deviation
ID1	In order to make financial decisions, I would require professional financial advisor's advice regarding investment options.	2.941	1.023
ID2	Before making an investment in a company, I would like to find out more about its standing in the market.	2.691	0.848
ID3	Before making an investment in a company, I would like to learn more about its anticipated earnings.	2.725	0.897
ID4	As soon as the price of equities rises, I would like to realize the gain.	2.850	0.922
ID5	I believe it is safer to invest in domestic stocks as opposed to foreign ones.	3.250	0.891
ID6	I would like to invest when there are positive economic indicators	3.166	0.639
ID7	When making investment selections, I take the nation's future economic circumstances into account.	2.683	0.697
ID8	I believe the company's stocks are suitable for long-term investment.	2.508	0.549
	Overall Mean	**2.851**	
	Kaiser-Meyer-Olkin Sampling Adequacy Measure.		0.895
	Bartlett's Test of Sphericity	Approx. Chi-Square	1546.864
		Df	28
		Sig....................	001

4.5 Descriptive Statistics on Investment Decisions

From Table 5, on a Likert scale of 1-5, a value of 3.883, approximately 4, indicates the pito brewers to a larger extend consider the returns they expect to earn on an investment before they make a decision. A value of 2.966 approximately 3, indicates that the pito brewers moderately consider the past performance of the firm and trends in interest rate and inflation to a greater extend when making investment decisions. Oteng (2019) also discovered similar findings in his research. However, financial indicators such as market risk,

liquidity risk and regulatory risk are moderately considered by the pito brewers when making investment decisions. On the average, pito brewers in the Municipality consider these financial indicators when making investment decisions. The KMO test value of 0.853 and a p-value of 0.001 of the Bartlett's test also indicate the relevance of the data collected for the research analysis. The research findings are in line with Oteng (2019) and Amisi (2012) studies' findings. However, our study results contradict the studies' findings by Musundi (2014) and Raut (2020).

Table 5: Descriptive Statistics on Investment Decisions

	Items	Mean	Standard Deviation
FD1	Returns	3.883	0.610
FD2	Trends in interest rate	4.133	0.578
FD3	Inflation rate	4.000	0.565
FD4	Market risk	3.533	0.660
FD5	Liquidity risk	3.725	0.564
FD6	Regulatory risk	3.466	0.925
FD7	Past performance of the firm	2.966	2.978
	Overall Mean	**3.672**	
	Kaiser-Meyer-Olkin Sampling Adequacy Measure.		0.853
	Bartlett's Test of Sphericity	Approx. Chi-Square	784.653
		Df	21
		Sig.	.001

4.6 Correlation analysis

At a significance threshold of 0.05, the linear connection was examined from Table 6. Financial literacy (financial knowledge, financial management abilities, and financial behavior) was found to positively correlate with investing decisions. Nonetheless, there appears to be little correlation between these independent and dependent factors. At the 0.05 level, the connection was significant because the p-values were less than 0.05 (0.001<0.05).

Table 6 Correlation analysis

Correlations

		ID	FK	FM	FB
Pearson correlation	ID	1.00	0.935	0.913	0.963
	FK	0.935	1.00	0.920	0.960
	FM	0.913	0.920	1.00	0.969
	FB	0.963	0.960	0.969	1.00
Sig. (1-tailed)	ID		0.001	0.001	0.001
	FK	0.001		0.001	0.001
	FM	0.001	0.001		0.001
	FB	0.001	0.001	0.001	

4.7 Co-efficient of Determination

The explanatory power of the independent variables with respect to the dependent variable is displayed by the coefficient of determination. It shows the extent to which the independent factors account for the variances in the dependent variable. R-squared statistics are applied. According to Table 7, R-Square indicates, financial literacy accounts for 98.6% of the variance in the pito brewers' investment choices, with the error term, ε, representing other factors at the other end of the spectrum.

Table 7: Co-efficient of determination

		Model Summary[b]			
Model	R	R-Square	Adjusted R-square	Std. Error of the Estimate	Durbin-Watson
1	0.967[a]	0.936	0.934	0.19400	0.262

Predictors: (constant), FB, FK, FM
Dependent Variable: ID

4.8 Analysis of Variance

ANOVA was utilized in the study to determine the regression model's level of significance. Table 8 shows the ANOVA results. A 95% confidence level was established with a 0.05 significance level. Table 8 showed that the p-value was $0.001 < 0.05$, indicating that the model was significant at the 0.05 significance level. Based on this discovery, it can be concluded that the model is important and that pito brewers' investment decisions in the municipality are influenced by financial literacy. These results are consistent with research conducted by David et al. (2012). The research findings of Raut (2020) and Abdeldayem (2016), however, were different.

Table 8: Analysis of Variance

		ANOVA[a]				
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	63.478	3	21.159	562.234	0.001[b]
	Residual	4.366	116	0.038		
	Total	67.843	119			

Dependent Variable: ID
Predictors: (constant), FB, FK, FM
.

4.9 Regression Analysis

The regression equation can be determined from Table 9 below as follows:
Y=0.203+0.070FK+0.324FM+1.155FB+ε
Where;
Y: Dependent Variable (Investment Decisions)

FK: Financial Knowledge
FM: Financial Management
FB: Financial Behavior
ε: Error

From Table 9, the constant shows that when there is no financial literacy, the investment decisions of the pito brewers will be equal to .203. This ratio on the Likert scale of 1-5 shows that, the respondents will not be able to make the right investment decision when there is no financial literacy. The regression results further indicate, a unit increase in financial knowledge of the pito brewers will lead to a 7% rise in investment decision among the pito brewers' whiles a unit increase in the financial management skills of the pito brewers will results in a 32.4% increase in investment decisions among the pito brewers in the municipality. This study finding are aligned with Ocansey (2022).

Also, a unit rise in the financial behavior of these pito brewers will cause investment decisions to increase by 1.155. This affirms the positive nexsu between financial literacy and investment decisions as established above. The p-values for both financial management skills (0.001) and financial behavior (0.001) turn to be less than 0.05 significant level. This means that any adjustment that will be made in these predictors can contribute immensely to changes in the investment decisions. However, the p-value of the predictor, financial knowledge (0.306) is higher than the 0.05 significant level and therefore is considered not significant. Hence, a change in this predictor will have no contribution to the investment decisions of the pito brewers. (Ocansey (2022); Dzilah (2021); Amisi (2012) discovered similar results in the studies. However, Abdeldayem (2016); Musundi (2014) and Raut (2020) findings contradict our research findings.

The findings provide a substantial support for the prospect theory's key propositions and align with existing empirical literature. With respect to Hypothesis H1, the findings indicate that pito brewers exhibit loss-averse investment behavior, whereby perceived potential losses exert a stronger deterrent effect on investment participation than equivalent perceived gains exert as motivation. Despite respondents' self-reported confidence in financial decision-making and prudent spending behavior, their uncertainty about financial knowledge and limited understanding of formal financial mechanisms suggest heightened sensitivity to potential losses. This outcome is consistent with the prospect theory and corroborates prior studies such as Amisi (2012) and Dzilah (2021), which found that informal-sector operators tend to avoid investments perceived as risky due to fear of financial loss. However, this finding contrasts with Abdeldayem (2016) and Musundi (2014), who reported a weaker influence

of loss aversion among financially informed individuals, suggesting that contextual and literacy differences play a critical role. Regarding Hypothesis H2, the study discovers evidence that pito brewers' investment decisions are influenced by framing effects, as predicted by the prospect theory. The moderate level of financial literacy observed limits respondents' ability to objectively evaluate investment options independent of how outcomes are presented. As a result, loss-framed investment scenarios are more likely to discourage participation than gain-framed scenarios are to encourage it. This finding aligns with the behavioral finance literature, which demonstrates that individuals with limited financial knowledge are particularly susceptible to framing biases (Kahneman & Tversky, 1979; Barberis, 2013). Similar patterns have been observed among micro-entrepreneurs in developing economies, where decision-making is often shaped by perceptions rather than objective risk-return assessments. Concerning Hypothesis H3, the results show that the moderate level of financial literacy among pito brewers is insufficient to significantly reduce risk aversion or increase engagement in formal investment activities. While higher financial literacy is theoretically associated with lower risk aversion and greater participation in formal financial markets, the findings indicate only partial support for this hypothesis. The persistence of uncertainty about financial knowledge and weak financial management skills appears to reinforce conservative investment behavior. This finding is consistent with studies that emphasize the role of financial literacy as a necessary but not sufficient condition for active investment participation (Lusardi & Mitchell, 2014), particularly in informal and low-income contexts. Overall, the findings suggest that the investment behavior of pito brewers in the Wa Municipality is shaped by a combination of loss aversion, framing effects and moderate financial literacy, consistent with the prospect theory. While financial literacy has the potential to mitigate behavioral biases, its current level among the respondents does not adequately offset risk aversion under uncertainty. These results highlight the need for financial education interventions that go beyond technical knowledge acquisition to address behavioral and psychological factors influencing investment decisions, thereby enhancing financial inclusion and investment participation among informal-sector entrepreneurs in Ghana.

Table 9: Regression Analysis

Model		Unstandardized coefficients		Standardized coefficients	T	Sig.
		B	Std. Error	Beta		
1	(constant)	0.203	0.081		2.507	0.014
	FK	0.070	0.069	0.087	1.029	0.306
	FM	0.324	0.096	0.324	3.369	0.001
	FB	1.115	0.130	1.193	8.911	0.001

5.0   CONCLUSIONS

The research purpose is to analyze the financial literacy of pito brewers in the Wa Municipality and to determine how it affects their investing decisions. The study administered 120 questionnaires on a sample frame of 250 pito brewers in the Wa Municipal. The findings found that pito brewers in the Wa Municipality had some degree of financial literacy when it comes to making investment decisions. The study's findings also discovered that all the respondents were women and majority of them are elderly women. Furthermore, the results demonstrated that many of the respondents were not formally educated and live on a discretionary income between GH₵1000 to GH₵3000. Majority of the respondents earned up to GH₵1000 per month as their disposable income. The implication of the study findings is that; the state should take it upon itself to educate the informal sector as majority of Ghanaians labor force fall within this sector of the economic to boost the financial knowledge. Once this majority is financially educated, they will be able to make sound investment decisions that will significantly contribute to the country's economic prosperity. Again, the Ministry of education should examine and incorporate financial literacy programmes into the Ghana Education Service curriculum starting from basic 7 through to the university. This will assist citizens learned to be financially responsible and to use their knowledge to maximize their wealth.

5.1   Statements and Declarations

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