OBSERVARE
Universidade Autónoma de Lisboa

e-ISSN: 1647-7251
Vol. 14, Nº. 2 (November 2023-April 2024)

JANUS.NET
e-journal of International Relations

# ENTREPRENEURSHIP DEVELOPMENT- IS FINANCIAL LITERACY MATTER? A LITERATURE REVIEW

**MOHSEN MOHAMMADI KHYAREH**
m.mohamadi@gonbad.ac.ir
Assistant professor, University of Gonbad Kavous, Gonbad Kavous (Iran)
ORCID ID: 0000-0003-3977-0929

**AMINEH ZIVARI**
aminehzivari@gmail.com
MA, University of Gonbad Kavous, Gonbad Kavous (Iran)
ORCID ID: 0009-0009-5469-3504

## Abstract

This paper investigates the role of financial literacy in entrepreneurship development. A comprehensive review of 79 articles reveals that financial literacy positively influences entrepreneurs' financial behavior. Proficiency in financial concepts enables better decision-making, essential for activities like cost tracking, revenue management, and investment assessment. The paper also offers recommendations for future research and suggests enhancing entrepreneurs' knowledge and financial literacy through school education as a means to foster entrepreneurship.

## Keywords

Entrepreneurship, financial literacy, small and medium enterprises, financial behavior

## Resumo

Este artigo analisa o papel da literacia financeira no desenvolvimento do espírito empresarial. Uma análise exaustiva de 79 artigos revela que a literacia financeira influencia positivamente o comportamento financeiro dos empresários. A proficiência em conceitos financeiros permite uma melhor tomada de decisões, essencial para actividades como o controlo de custos, a gestão de receitas e a avaliação de investimentos. O documento apresenta ainda recomendações para investigação futura e sugere o reforço dos conhecimentos e da literacia financeira dos empresários através do ensino escolar como forma de promover o empreendedorismo.

## Palavras chave

Empreendedorismo, literacia financeira, pequenas e médias empresas, comportamento financeiro.

## How to cite this article

Khyareh, Mohsen Mohammadi; Zivari, Amineh (2023). Entrepreneurship Development. Is Financial Literacy Matter? A Literature Review. *Janus.net, e-journal of international relations*, Vol14 N2, November 2023-April 2024. Consulted [online] in date of last view, https://doi.org/10.26619/1647-7251.14.2.11

**Article received on May 3, 2023 and accepted on August 30, 2023**

# ENTREPRENEURSHIP DEVELOPMENT- IS FINANCIAL LITERACY MATTER? A LITERATURE REVIEW

**MOHSEN MOHAMMADI KHYAREH**

**AMINEH ZIVARI**

## 1. Introduction

The significance of entrepreneurship has seen rapid growth in recent years, garnering attention from both scholars and society at large. Entrepreneurship and small to medium-sized enterprises play pivotal roles in economic development, particularly in developing countries (Okello et al., 2017). Some researchers argue that limited access to financial services, particularly from financial institutions, hinders the potential of small businesses and entrepreneurship (Schiffer et al., 2001; Beck and Demirguc-Kunt, 2006; Balarezo and Nielsen, 2017). A key contributing factor to this limitation is the low level of financial literacy among entrepreneurial stakeholders. Several studies emphasize the importance of enhancing financial literacy through business education as a means for SMEs in developing countries to acquire the necessary financial and business skills for growth (Bruhn et al., 2010; Balarezo et al., 2017; Ye et al., 2019).

Financial literacy is often considered vital for business success and growth, yet its exact relationship with entrepreneurial activity remains somewhat unclear. This article addresses the question of whether financial literacy the reason why business ventures grow?

To tackle this question, we conducted an extensive literature review. We searched more than 24,000 journals for articles related to entrepreneurship and financial literacy using the Web of Science database. We systematically analyzed each article, employing a framework based on financial development theory. This review encompasses 79 articles that delve into the relationship between entrepreneurship and financial literacy, examining how financial theory informs this connection. While these 79 articles offer valuable insights, they leave certain aspects of the relationship between entrepreneurship and financial literacy underexplored, necessitating a more comprehensive understanding of the topic. To address this gap, we augment the insights from our initial review by examining top journals in various key disciplines, such as finance, management, sociology, and economics. This multidisciplinary approach enables us to develop a research agenda that draws on both the finance scholars' perspective and the literature on entrepreneurial development from related fields.

In summary, our literature review indicates that financial literacy can indeed foster entrepreneurship. Entrepreneurial activities and SMEs generate substantial competitiveness not only locally but also on international and global scales (Rachapaettayakom et al., 2020). Consequently, entrepreneurs must cultivate financial literacy to comprehend and execute effective financing strategies. Financially literate entrepreneurs tend to make more informed financial decisions and commit fewer management errors compared to their less financially literate counterparts. Moreover, financial literacy can enhance individuals' ability to make informed financial choices, ultimately improving small businesses' access to and utilization of financial services (Okello et al., 2016).

This paper contributes significantly to the literature by providing deeper insights into the intersection of financial literacy and entrepreneurship and highlighting how financial theory influences the relationship between entrepreneurship and economic inequality. We encourage finance scholars to incorporate these insights into future research to enhance their understanding of this relationship and its associated boundary conditions. Additionally, the practical implications of our findings suggest that improving individuals' financial literacy is likely to enhance the success of entrepreneurial activities.

## 2. Definition of the Domain

### 2.1 Entrepreneurship

The concept of entrepreneurship has evolved over time, with various definitions and perspectives from scholars. Richard Cantillon initially defined an entrepreneur as someone who purchases a product at a fixed price and sells it at an unspecified price, emphasizing risk-taking and decision-making in resource allocation (Casson, 1993). In the 19th century, economists like Jean-Baptiste Say, John Stuart Mill, and Alfred Marshall further developed the notion of entrepreneurship. Jean-Baptiste Say considered entrepreneurs as creators of economic value by transferring resources from low-productivity areas to high-productivity ones, emphasizing their expertise in cost and price analysis (Say, 1803).

Subsequently, the concept of entrepreneurship evolved to combine Jean-Baptiste Say's "resource" component with John Stuart Mill's "management" component, highlighting management as the primary coordinator of the production factors—land, labor, and capital (Marshall, 1890). In the 20th century, Schumpeter introduced the idea of entrepreneurs as innovators, defining them as individuals who develop untested technologies. This definition underscores innovation in terms of introducing new products, innovative production processes, opening new markets, discovering new resources, and establishing new industry organizations. It posits that wealth is created when such innovations lead to new needs (Schumpeter, 1934).

Over time, entrepreneurship has attracted the attention of researchers from diverse fields, resulting in various definitions. While these definitions may differ slightly, they share common concepts such as "demand and supply," "value and wealth creation," "innovation," "resource management," "organizational capability," "risk tolerance," and "funds." Recognizing this interdisciplinary nature, comprehensive definitions of entrepreneurship include all types, such as economic, social, public, organizational, and collaborative entrepreneurship, spanning micro, small, medium, start-up, and new ventures (Oseifuah, 2010; Otieno et al., 2011).

### 2.2 Financial Literacy

Financial literacy, a term first championed by the Jump$tart Coalition for Personal Financial Literacy in 1997 in the United States, pertains to an individual's ability to employ knowledge and skills to effectively manage their financial resources, ensuring lifelong financial security (Lusardi & Mitchell, 2011). Various definitions of financial literacy abound:

- Financial literacy encompasses knowledge and understanding of financial concepts, the confidence to use this knowledge, and responsible behavior in making informed financial decisions (OECD, 2005).
- It represents a combination of awareness, knowledge, skills, attitudes, and behaviors necessary for sound financial decision-making and achieving financial well-being (Abubakar, 2015).
- Financial literacy includes skills such as budgeting, bill payment, shopping, debt management, consumer issue handling, and comparison shopping, emphasizing practical application (Reich & Berman, 2015).
- It denotes the application of knowledge and skills to effectively manage one's financial resources, leading to economic well-being. This encompasses understanding one's financial situation, engaging in financial behaviors like saving, budgeting, planning, and making informed financial decisions (Kapoor, 2014; Singla & Mallik, 2021).

Financial literacy is instrumental in numerous aspects of personal finance, including understanding financial market products, returns, risks, personal financial planning, investment in capital markets, banking services, insurance, savings, deposits, pension fund benefits, and financial institutions (Cressy, 2002; Riwayati, 2017; Okello et al., 2017; Goodell, 2020).

In summary, financial literacy comprises the knowledge, skills, attitudes, and behaviors that empower individuals to make informed financial decisions, with far-reaching positive consequences for individuals, families, and society as a whole. Various studies have developed knowledge scales to measure financial literacy, encompassing skills related to savings, debt, insurance, investments, and financial self-assessment (Mien & Thao, 2015; Perry & Morris, 2005).

## 3. Methodology

This paper's objective is to explore the nexus between financial literacy and entrepreneurship through the lens of financial theory and lay the groundwork for future research. Our approach involves a comprehensive literature review on entrepreneurship and financial literacy.

### 3.1. Identification of Articles

We conducted a search across the extensive collection of over 24,000 journals available on the Web of Science. We examined titles, keywords, and abstracts for terms such as "financial literacy" and related terms including "opportunistic entrepreneurship," "essential entrepreneurship," "formal entrepreneurship," "informal entrepreneurship," "entrepreneurship development," and more. Our search initially yielded 446 articles. These articles were then carefully scrutinized for inclusion, with a focus on those that provided substantial analysis of entrepreneurship and financial literacy. This meticulous review led to the inclusion of 79 articles in our analysis. Articles that only briefly mentioned entrepreneurship or financial literacy without substantial exploration of these topics were excluded.

Subsequently, we conducted an in-depth analysis of these 79 articles, coding various characteristics of each article, including the applied theories, research methodologies, research questions, dependent and independent variables, and contributions. To facilitate a deeper understanding of the central themes in the literature, we organized the articles in multiple ways, such as by level of analysis or by the specific topics investigated.

## 4. Research Findings: Distribution of 79 Research Articles by Publication Year

Table 1 presents an insightful analysis of the distribution of 79 research articles, comprising scholarly papers, reports, and various studies, without imposing any temporal constraints on the investigation. Notably, the distribution of these articles across different publication years reveals intriguing trends and patterns.

In 2020, there was a notable surge in research activity, with 8 articles published, indicating a considerable emphasis on the subject matter during that specific year. Following closely behind, in 2017, there were 7 articles, reflecting a sustained interest in the subject. The years 2011, 2014, and 2015 all contributed 6 articles each, suggesting a consistent scholarly focus over this period.

Furthermore, 2016 and 2013 both saw the publication of 5 articles, reinforcing the enduring significance of the topic. In 2019 and 2021, 4 articles were published in each of these years, indicating ongoing research engagement. The years 2009 and 2010 contributed 3 articles each, signifying a continued interest in the subject during those periods.

Additionally, there were 2 articles published in the years 1996, 2003, 2009, and 2010, suggesting a sustained and enduring academic inquiry into the subject matter.

In summation, the notable prominence of articles published in 2020 underscores the heightened relevance and significance of the subject within the academic discourse during that particular year.

Table 1: Distribution of Research Articles by Publication Year

| year of publication | Number Of papers | year of publication | Number Of papers | year of publication | Number Of papers |
|---|---|---|---|---|---|
| 1890 | 1 | 2004 | 1 | 2014 | 6 |
| 1934 | 1 | 2005 | 1 | 2015 | 6 |
| 1993 | 1 | 2006 | 1 | 2016 | 5 |
| 1995 | 1 | 2008 | 1 | 2017 | 7 |
| 1996 | 2 | 2009 | 3 | 2018 | 2 |
| 1998 | 1 | 2010 | 3 | 2019 | 4 |
| 2001 | 1 | 2011 | 6 | 2020 | 8 |
| 2002 | 1 | 2012 | 2 | 2021 | 4 |
| 2003 | 2 | 2013 | 5 | 2022 | 2 |

Source: Authors

We systematically analyzed a corpus of 79 articles collected with the influence of financial literacy on the progression of entrepreneurship. Our approach involved categorizing these articles based on the journals in which they were published to gauge the extent to which they addressed this critical subject matter.

To facilitate our analysis, we categorized these articles based on the journals in which they found their academic home. This categorization allowed us to discern which journals demonstrated a more pronounced dedication to addressing this pivotal subject. Our findings unveiled intriguing trends: a substantial portion of the articles, precisely 47, were single representatives from various journals, while 3 journals exhibited a heightened commitment by featuring two articles each. Notably, the Journal of Pension Economics & Finance emerged as a standout, contributing a noteworthy total of 3 articles to the discourse.

From this comprehensive review, it becomes evident that the Journal of Pension Economics & Finance has played a pivotal role in emphasizing the significance of the financial literacy-entrepreneurship nexus within the scholarly arena.

In addition to these research articles, our investigation also unearthed 23 additional references, offered in the form of books and reports, further enriching the available resources and insights on this pertinent subject.

Moving forward, we extended our analysis to evaluate the indexing status of these journals in prominent databases, including Scopus and JCR (Journal Citation Reports). Impressively, 17 of the reviewed journals boasted indexing in both Scopus and JCR databases, a testament to their academic impact. Furthermore, 15 journals enjoyed exclusive indexing in Scopus, while 2 journals secured their place in the JCR database.

For a more comprehensive breakdown of our findings in Table 2, which provides an in-depth summary of the distribution of research articles across these journals.

Table 2: Distribution of Research Articles by Journal and Indexing Status

| Journals | Index | NO. of papers | Journals | Index | NO.of papers |
|---|---|---|---|---|---|
| *American Economic Review* | Scopus | 1 | *Journal of Banking & finance* | Scopus-JCR | 1 |
| *American Based Research Journal* | Scopus | 1 | *Journal of social sciences* | Scopus | 1 |
| *Amazonia Investiga* | JCR | 1 | *Journal of Entrepreneurship in Emerging Economies* | Scopus | 1 |
| *African Journal of Business Maneagemnt* | - | 1 | Journal of African Business | Scopus | 1 |
| *African Journal of Economic and Management Studies* | Scopus | 1 | *Journal of Small Business and Enterprise Development* | Scopus-JCR | 1 |
| *Asia Pacific Management Review* | Scopus-JCR | 1 | *Journal of Social Service Research* | Scopus-JCR | 1 |
| *Business & Applied Sciences* | - | 1 | *Journal of Small Business Management* | Scopus-JCR | 1 |
| *Conference on Measurement, Promotion, and Impact of Access to Financial Services* | - | 1 | *Journal of Entrepreneurship Education* | - | 1 |
| *Finance research letters* | Scopus | 1 | *Journal of Financial economics* | Scopus-JCR | 1 |
| *Economic Literature* | Scopus-JCR | 1 | *Journal of Innovation and Entrepreneurship* | Scopus | 1 |
| *Frontiers in Psychology* | Scopus-JCR | 1 | *Journal of Small Business and Entrepreneurship* | Scopus | 1 |
| *Financial counseling and planning* | Scopus-JCR | 1 | *Journal of Enterprising Communities: People and Places in the Global Economy* | Scopus-JCR | 1 |
| Finansal Araştırmalar ve Çalışmalar Dergisi | - | 1 | *Journal of Pension Economics & Finance* | Scopus-JCR | 3 |
| *Global Business Review* | Scopus-JCR | 1 | *Malaysian E Commerce Journal (MECJ)* | - | 1 |
| *International Journal of Research Studies in Management* | - | 1 | *Marketing and Management of Innovations* | JCR | 1 |
| *International Journal of Academic Research in Business and Social Sciences* | - | 2 | *Numeracy* | | 2 |
| In *2nd International Conference on Economics & Banking* | - | 1 | *Proceedings of the Second Asia-Pacific Conference on Global Business, Economics, Finance and Social Sciences (AP15Vietnam Conference)* | - | 1 |
| In *Proceedings of the 2nd advances in business research international conference* | - | 1 | *Quarterly Journal of Finance* | Scopus | 1 |
| International Journal of Libraries and Information Studies | Scopus-JCR | 1 | *Review of International Business and Strategy* | Scopus-JCR | 2 |
| . *International Small Business Journal* | Scopus-JCR | 1 | *Sustainability* | Scopus-JCR | 1 |
| *International journal of economics, commerce and management,* | - | 1 | *The Economic Journal* | Scopus-JCR | 1 |
| *International Journal of Economics and Financial Issues* | - | 1 | *The Journal of Consumer Affairs* | Scopus | 1 |
| *International Journal of Business and Management* | - | 1 | *The Journal of Risk Finance* | Scopus | 1 |

| | | | | | |
|---|---|---|---|---|---|
| *International Journal of Education and Research* | - | 1 | *Venture Capital* | Scopus-JCR | 1 |
| *Iranian Journal of Management Studies* | Scopus | 1 | *World Journal of Entrepreneurship, Management and Sustainable Development* | Scopus | 1 |
| *Journal of clinical and experimental dentistry* | Scopus | 1 | - | - | - |

Source: Authors

### 4.1. Global Insights on Financial Literacy

Financial literacy is tightly interwoven with household wealth and financial stability (Cole, 2009). A substantial body of evidence underscores that individuals with strong financial knowledge tend to make more astute financial decisions, leading to increased savings and investments while reducing reliance on borrowing. This, in turn, bolsters the overall financial health of households. People who comprehend financial concepts such as basic accounting, inflation, and risk diversification are more inclined to plan for their retirement (Lusardi & Mitchell, 2017; Klapper, & Panos, 2011). Importantly, these rational financial decisions hold significant implications for a country's economic growth and long-term stability (Bongomin et al., 2017; Gusti et al., 2021). Greater long-term savings and investment contribute substantial capital to the economy, reducing reliance on external debt.

Conversely, multiple studies have illuminated the severe economic repercussions of financial illiteracy. A lack of financial awareness and the consequent financial behaviors can lead to unfavorable financial outcomes. Inadequate comprehension of key economic concepts and skills prompts individuals to make suboptimal financial decisions (Hastings & Mitchell, 2020). A notable subset of individuals with low financial literacy avoids the stock market (Van Rooij et al., 2011), exhibits poor borrowing habits, saves less, and accumulates reduced wealth due to inadequate retirement planning. Lusardi et al. (2009) delved into the connection between financial literacy and excessive indebtedness, concluding that those with lower financial literacy are more inclined to accumulate debt and engage in costly financial transactions. The suboptimal financial behavior of employees can lead to heightened psychological stress, ultimately impacting employee productivity, with employers bearing the associated costs (Garman et al., 1996). This highlights that the consequences of financial illiteracy extend beyond individuals to encompass society and the nation as a whole.

An international project assessing financial literacy in eight countries found that, regardless of a country's level of financial development, financial literacy remained low worldwide (Lusardi & Mitchell, 2011). The survey instrument comprised three questions covering topics such as counting, inflation, and risk diversification. Moreover, the study revealed variations in financial literacy among different population subgroups. Financial literacy exhibited a U-shaped pattern across age groups, with younger and older cohorts displaying lower levels of financial literacy. Women with lower education levels demonstrated diminished financial literacy. Geographical, racial, regional, and religious factors also significantly influenced financial literacy. Furthermore, individuals with a strong grasp of fundamental financial concepts were more likely to engage in comprehensive retirement planning (Lusardi & Mitchell, 2011).

The OECD International Network conducted a study on financial education in 14 countries across four continents, measuring financial literacy across three dimensions: financial knowledge, financial behavior, and financial attitude. Results indicated a widespread lack of financial literacy among large segments of the population in all countries studied. Women generally displayed lower economic literacy compared to men. A positive correlation existed between income levels and financial literacy. Highly educated individuals exhibited high levels of financial literacy, sound financial behavior, and positive attitudes. The study also highlighted that individuals with greater financial knowledge were more likely to exhibit prudent financial behaviors, emphasizing the strong link between financial attitudes and actions (Atkinson & Messy, 2012; Sebstad & Cohen, 2003; Sherraden, 2010).

The MasterCard Financial Literacy Assessment, conducted between July and August 2014 across 16 countries in the Asia Pacific region among 8,087 respondents aged 18 to 64, assessed knowledge in three main sections: basic money management, financial planning, and investing. The results revealed a slight decline in financial planning knowledge across the region compared to the previous survey. In the realm of investment, the Asia-Pacific region fared poorly across all components of the Financial Literacy Index. Developed markets, led by Taiwan, New Zealand, and Hong Kong, and exhibited superior financial literacy, with consumers in higher income brackets or those employed in certain professions displaying higher levels of financial literacy (Ahmad et al., 2016).

Another study, conducted on behalf of the Asian Development Bank Institute, highlighted lower financial literacy scores in Asian countries. Given the profound impact of financial literacy on a nation's economic development, researchers stressed the need for heightened policy efforts at the national level to channel savings into various financial instruments that promote economic growth (Yoshino et al., 2015). Interestingly, financial illiteracy is not limited to less developed countries; it is also prevalent in developed nations. An analysis of a national sample of Americans based on debt knowledge, financial experience, and debt level judgments revealed significant gaps in debt literacy, with higher rates among women, the elderly, certain ethnic groups, and individuals with lower incomes and wealth. The study unveiled a direct relationship between debt literacy and excessive debt, with financially literate individuals bearing a lower debt burden. Additionally, those with limited financial knowledge entered into expensive transactions, incurring higher costs and interest rates. The study estimated that lack of debt knowledge accounted for a substantial portion of the costs and expenses incurred by the less financially educated (Lusardi et al., 2017).

Another study focusing on the financial capabilities of working women in the United States drew data from the National Financial Ability Study, assessing the financial behaviors of working women across various career stages and family situations. The findings indicated that women generally possessed lower financial literacy compared to men. The study unveiled trends of substantial long-term debts, reliance on high-cost credit card loans, and insufficient financial planning among working women. Furthermore, higher education, greater income, and marriage exhibited positive effects on the financial behaviors of respondents (Grifoni and Messy, 2012). To address these unique financial challenges faced by women, researchers advocated for tailored financial education programs, personalized services, and debt counseling (Scheresberg et al., 2014).

In a similar vein, a survey assessing the financial literacy of individual investors in the United Arab Emirates analyzed the impact of age, gender, employment status, work activity, income, and education level on financial literacy levels and investment decision factors. The study revealed low levels of financial literacy among UAE investors, with significant disparities based on income, education, gender, and workplace activity. Women displayed lower financial literacy levels than men. Surprisingly, age did not appear to influence financial literacy levels among respondents. The study identified religion as the most influential factor affecting investment decisions (Al-Tamimi & Anood Bin Kalli, 2009).

Financial literacy, undeniably, exerts a positive influence on financial behavior. It empowers individuals to make informed decisions regarding their financial well-being, ultimately driving savings, asset accumulation, and debt reduction. Findings from the National Financial Skills Study on Investor Education affirm the strong link between financial literacy and household financial behavior. Moreover, financial literacy tends to enhance responsible credit card usage. Women with lower financial literacy exhibit greater involvement in costly credit card transactions than their less-educated male counterparts. However, no gender disparities were observed in the credit card behavior of financially literate individuals (Mottola, 2013). This research underscores the critical importance of financial literacy in facilitating sound decision-making and averting financial pitfalls. Families lacking financial skills and knowledge are more susceptible to making irresponsible financial choices.

### 4.2. Financial Literacy and Its Significance in Entrepreneurship

As outlined in the previous sections, the possession of financial literacy emerges as a paramount factor, significantly impacting financial decision-making, particularly for entrepreneurs and business owners. Within this context, this section delves into the extensive body of literature and research dedicated to elucidating the pivotal relationship between financial literacy and entrepreneurship.

Numerous business surveys have consistently pinpointed access to finance and adept financial management as the foremost determinants of survival and growth for Small and Medium-sized Enterprises (SMEs). Insights gleaned from these studies underscore that, particularly in developing economies, access to financial resources empowers SMEs to make strategic investments, expand their operations, and embrace cutting-edge technologies. Consequently, access to financial resources not only secures their competitiveness but also fosters innovation, macroeconomic flexibility, and GDP growth (Beck and Demirguc-Kunt, 2006; Calcagno et al., 2020; Saptono, 2018; Purnomo, 2019).

Financial literacy emerges as a critical factor facilitating engagement with financial affairs effectively. Reduced levels of financial literacy can inhibit individuals from navigating intricate financial products, such as insurance, as they may be apprehensive about investing in instruments they do not fully comprehend (Cole & Fernando, 2008). In this regard, research indicates that bolstering financial literacy through the acquisition of business skills plays a pivotal role in fueling SME growth and represents a key determinant of productivity. Financial literacy is defined as "the ability to obtain, understand, and assess tax-related information and make decisions and choices with an understanding of the potential financial consequences," making it indispensable for SME growth (Njoroge, 2013; Nielsen, 2017; Ahmad et al., 2019).

Furthermore, findings from analogous studies consistently demonstrate that individuals equipped with financial literacy skills tend to make fewer management errors in financial decision-making compared to their less financially literate counterparts. This underscores that adept financial management is fundamental to the survival and effective functioning of SMEs. Financial literacy empowers SME owners by enabling them to evaluate financial products judiciously and make informed decisions. Moreover, it enhances the risk management capabilities of SME owners (Njoroge and Gathungu, 2013; Alshebami et al., 2020). Financial literacy equips SME proprietors with the skills necessary to navigate challenging financial periods by employing risk mitigation strategies, such as building savings, diversifying assets, and avoiding excessive debt.

A United Nations report emphasizes that financial literacy, defined as the ability to apply knowledge and skills to manage financial resources, plays a pivotal role in the financial success of SMEs in developing economies. This acumen is particularly crucial as a tool in the fight against poverty. Empirical evidence underscores that SMEs led by financially literate entrepreneur’s exhibit a significantly higher likelihood of success than their uneducated counterparts. Financial literacy empowers managers and owners of SMEs in developing economies to make informed financial decisions and select suitable financial products from the financial system with confidence (Siekei, 2012; Riepe et al., 2020; Munyuki & Jonah, 2021).

Indeed, various studies present compelling evidence regarding the robust association between financial literacy and entrepreneurial success. Researchers posit that financial literacy empowers SME managers in developing economies with strategic financial knowledge, skills, and the ability to make prudent financial decisions (Lusardi et al., 2009; Moore, 2003; Ali et al., 2018). These studies reveal that financial literacy exerts a positive impact on the performance of SMEs, fostering savings and effective risk management through insurance contracts. Similarly, investigations into Kenyan microenterprises highlight the substantial positive influence of financial literacy training on their performance. Consequently, financial literacy fosters SME expansion, amplifying their profitability, productivity, and competitive edge (Nunoo et al., 2015; Simeyo, 2011; Eniola & Entebang, 2016).

A prevalent cause of failure for numerous small and medium-sized enterprises in developing countries can be traced to insufficient financial literacy and financial acumen, which undermine entrepreneurial activities. Financial literacy is, in fact, regarded as one of the pivotal managerial competencies for the establishment and growth of SMEs (Timmons et al., 2004; Aren & Aydemir, 2014). Furthermore, some experts assert that alongside the provision of small loans, imparting basic business skills through training assumes great importance in enhancing the ability of SME managers to utilize these loans optimally. It also imparts knowledge on the effective use of financial products and services, reducing vulnerability to exploitative financial institutions and fraudulent practices (Webster & Fidler, 1996; Atandi et al., 2017). This contention is substantiated by the findings of Mutegi and Phelister (2015) and Bruhn and Zia (2011), which highlight that financial literacy contributes to crucial decision-making processes such as timely bill payments and prudent debt management, ultimately enhancing the creditworthiness of SMEs. This, in turn, supports livelihoods, fosters economic growth, strengthens financial systems, and mitigates risk. Financial literacy aids SME proprietors in developing economies in acquiring the financial knowledge and skills essential for business planning, initiating savings plans, and making strategic investment choices (Mutegi and Phelister, 2015; Chepngetich, 2016). Therefore, the judicious application of financial literacy and skills empowers SME owners in developing economies to fulfill their financial obligations through comprehensive planning, resource allocation, and value extraction.

USAID defines an economically literate SME owner/manager as someone who possesses knowledge of the most suitable financing and financial management options for their business at different stages of development. Such individuals are well-informed about where to procure the most appropriate products, people, and services and confidently engage with the suppliers of these offerings. Consumer financial literacy predominantly revolves around individuals and their capability to manage their personal financial decisions. In contrast, financial literacy for SMEs centers on individuals' ability to translate financial literacy concepts into pragmatic business needs (Lusardi & Mitchell, 2009; Jiyane & Zawada; 2013; Liu et al., 2021). Therefore, the intersection of consumption behavior and financial literacy can be observed through studies by Lusardi & Wallace (2013) and Dahmen & Rodríguez (2014), which assert that regardless of permanent income, individuals typically allocate the same amount for expenditures. The number of divisions depends on variables such as interest rates, job-related uncertainty, wealth-to-income ratio, and family size. This underscores that financial literacy plays a pivotal role in summarily guiding business conduct (Lusardi & Wallace, 2013; Egbo et al., 2020; Eniola & Entebang, 2017).

Riwayati (2017) investigates the mediating role of financial literacy in the relationship between financing channels and SME growth in developing economies. The study posits that financial literacy plays a positive and significant mediating role in the association between access to finance and SME growth in developing economies. Furthermore, both financial literacy and access to finance independently exert a substantial and positive influence on firm growth in developing economies. In a similar vein, a study titled "Managing innovation in financial education in selected OECD countries" assesses the financial literacy levels of 15-year-old students across some OECD countries, utilizing data from PISA 2015 measurements. This study underscores the criticism directed at education quality and job skills for inadequately addressing the demands of the labor market. Financial literacy and skills, the study contends, bolster individuals' performance in financial markets and personal finance (Mihalcova et al., 2020). Moreover, research endeavors seeking to discern the impact of socioeconomic and demographic variables on financial literacy and its consequences for the utilization of financial services have yielded valuable insights (Jana et al., 2019). The study identifies occupation, income, and education as the primary explanatory variables for financial literacy, while income and place of residence emerge as the most prominent positive determinants. These findings hold profound implications for policymakers, guiding their efforts to enhance financial literacy and foster financial inclusion (Jana et al., 2019).

Yet another study, focusing on analyzing the financial literacy of business owners or managers and its influence on access to finance and the development of Micro, Small, and Medium-sized Enterprises (MSMEs) in West Java, Indonesia, affirms that financial literacy wields a positive impact on access to finance and MSME growth. Concurrently, access to finance exerts a positive influence on MSME growth (Susan, 2020). Meanwhile, research by Oseifuah (2010) and Hossain et al. (2020) reveals that young entrepreneurs possess above-average financial literacy, which significantly contributes to their entrepreneurial skills. Additionally, a study leveraging survey data from 201 SMEs in Ghana concludes that financial literacy engenders a positive correlation with enhanced access to financial relationships and firm growth (Adomako, 2016). Lastly, Fatoki (2014) investigates the levels of financial literacy among small business owners in South Africa, assessing financial literacy in various domains such as financial planning, analysis and control, bookkeeping, comprehension of financial resources, familiarity with business terminology, financial and information skills, technology utilization, and risk management. Data collection is facilitated through questionnaires, with subsequent analysis employing descriptive statistics. The results underscore that small business owners typically exhibit lower levels of financial literacy.

The amalgamation of research findings presented herein underscores the substantial costs incurred due to the lack of financial skills and knowledge among diverse groups of individuals, with a particular emphasis on entrepreneurs. Perhaps the most significant ramification of inadequate financial literacy on entrepreneurs is their limited comprehension of the myriad financial resources available for financing endeavors and, more crucially, their inability to harness these resources optimally.

## 5. Conclusion

In our study, we examined the profound impact of financial literacy on entrepreneurial activity and the broader economic landscape. Our findings illuminate several critical aspects:

- Prevalence of Financial Illiteracy: Across the globe, financial illiteracy is alarmingly prevalent. This deficit in financial knowledge affects people's ability to make sound financial decisions at both personal and professional levels. Entrepreneurs, who shoulder the responsibility of business finances, are not exempt from this challenge.
- Entrepreneurship as an Economic Catalyst: We emphasized the pivotal role of entrepreneurs in fueling economic growth and development. Access to financial resources is a linchpin for entrepreneurial endeavors. Given its centrality, financial literacy assumes great importance in the entrepreneurial journey, facilitating informed decisions and efficient resource management.
- Positive Outcomes of Financial Literacy: Our analysis underscores that financial literacy yields positive outcomes, particularly within the entrepreneurial context. Entrepreneurs equipped with financial literacy possess the acumen to manage their

ventures' financial facets effectively. They can adeptly assess investment opportunities, gauge financial risks, and optimize resource allocation—all vital for a thriving entrepreneurial ecosystem.

## Recommendations

Building on our findings, we propose the following recommendations to foster financial literacy and its benefits:

1. Engagement in Financial Literacy Programs: We advocate for SME owners' active participation in financial literacy programs offered by Entrepreneurship Skills Development Organizations. These programs serve as valuable platforms for SME proprietors to acquire the requisite financial knowledge and skills. Such education equips them to navigate the intricacies of financial management, enabling them to secure financing and make informed, prudent decisions.
2. Incorporate Financial Management in Business Planning: When designing business plans, it is imperative to integrate a financial management training component. This empowers aspiring entrepreneurs with the competencies essential for managing their enterprises' financial aspects proficiently. Understanding budgeting, cash flow analysis, and financial forecasting becomes pivotal for the success of their ventures.
3. Early Introduction to Financial Literacy: Recognizing that financial literacy transcends entrepreneurship and is a universal life skill, we propose the introduction of financial literacy education from an early age. By instilling financial literacy concepts during childhood, individuals develop a strong foundation for making sound financial choices throughout their lives, be it as consumers or entrepreneurs.

In essence, our study underscores that financial literacy is a linchpin for entrepreneurship and broader economic development. By enhancing financial literacy among entrepreneurs and instilling financial education early in life, societies can foster prudent financial behavior, enable entrepreneurs to make informed decisions, and contribute to sustained economic growth. This holistic approach benefits not only entrepreneurs but also their businesses, communities, and the overall prosperity of nations.

## References

Abubakar, H.A., (2015). Entrepreneurship development and financial literacy in Africa. *World Journal of Entrepreneurship, Management and Sustainable Development*, *11*(4), pp.281-294.

Adomako, S., Danso, A. and Ofori Damoah, J., (2016). The moderating influence of financial literacy on the relationship between access to finance and firm growth in Ghana. *Venture Capital*, *18*(1), pp.43-61.

Ahmad, N.L., Yusof, R., Ahmad, A.S. and Ismail, R., (2019). The importance of financial literacy towards entrepreneurship intention among university students. *International Journal of Academic Research in Business and Social Sciences*, *9*(9), pp.18-39.

Ahmad, N.W., Ripain, N., Bahari, N.F. and Shahar, W.S.S., (2016), May. The impact of financial literacy on financial behavior: A literature study. In *2nd International Conference on Economics & Banking* (pp. 24-25).

Ali, H., Omar, E.N., Nasir, H.A. and Osman, M.R., (2018). Financial literacy of entrepreneurs in the small and medium enterprises. In *Proceedings of the 2nd advances in business research international conference* (pp. 31-38). Springer, Singapore.

Alshebami, A.S. and Al Marri, S.H., 2022. The Impact of Financial Literacy on Entrepreneurial Intention: The Mediating Role of Saving Behavior. *Frontiers in Psychology*, *13*, pp.911605-911605.

Al-Tamimi, H.A.H., (2009). Financial literacy and investment decisions of UAE investors. *The Journal of Risk Finance*, *10*(5), pp.500-516.

Aren, S. and Aydemir, S.D., (2014). A Literature Review on Financial Literacy. Finansal Araştırmalar ve Çalışmalar Dergisi, 6 (11), pp. 33–50.

Atandi, F.G., Bwisa, H. and Sakwa, M., (2017). Improving savings mobilization of micro and small enterprises through entrepreneurial financial literacy. *International Journal of Academic Research in Business and Social Sciences*, *7*(2), pp.386-403.

Atkinson, A., & Messy, F. A. (2012). Measuring financial literacy: Results of the OECD/International Network on Financial Education (INFE) pilot study.

Bagshawe, P. (1995). *Viva South African Entrepreneurs: Success from Humble Beginnings*. Lifespan Publications.

Balarezo, J. and Nielsen, B.B., (2017). Scenario Planning as Organizational Intervention: An Integrative Framework and Future Research Directions. *Review of International Business and Strategy*, *27*(1), pp.2-52.

Beck, T. and Demirguc-Kunt, A., (2006). Small and medium-size enterprises: Access to finance as a growth constraint. *Journal of Banking & finance*, *30*(11), pp.2931-2943.

Bir, J.S., 2014. Knowledge, attitude and their effect on the recently graduated employees' financial management practices and satisfaction. *Economic Literature*, *12*, pp.69-81.

Bongomin, G.O.C., Ntayi, J.M., Munene, J.C. and Malinga, C.A., (2017). The relationship between access to finance and growth of SMEs in developing economies: Financial literacy as a moderator. *Review of International Business and strategy*.

Bruhn, M. and Zia, B., (2011). Stimulating managerial capital in emerging markets: the impact of business and financial literacy for young entrepreneurs. *World Bank Policy Research Working Paper*, (5642).

Bruhn, M., Karlan, D. and Schoar, A., (2010). What capital is missing in developing countries? *American Economic Review*, *100*(2), pp.629-33.

Calcagno, R., Alperovych, Y. and Quas, A., (2020). Financial literacy and entrepreneurship. *New Frontiers in Entrepreneurial Finance Research*, pp.271-297.

Casson, M. (1993). The Entrepreneurs: An Economic Theory, Martin Robinson, Oxford,

Chakrabarty, K. C. (2009). Furthering financial inclusion through financial literacy and credit counselling. *Address at launch of Federal Ashwas Trust, Kochi, Kerala*.

Chepngetich, P. (2016). Effect of financial literacy and performance SMEs. Evidence from Kenya. *American Based Research Journal,* 5 (1), pp. 26-33.

Cole, S. and Fernando, N., (2008). Assessing the importance of financial literacy. *ADB Finance for the Poor*, *9*(2), pp.1-6.

Cole, S., Sampson, T. and Zia, B., (2009), February. Valuing financial literacy training. In *Conference on Measurement, Promotion, and Impact of Access to Financial Services, March* (pp. 12-13).

Cressy, R.C., (2002). Funding gaps: an introduction. *The Economic Journal*, *112*(477), pp.F1-F16.

Dahmen, P. and Rodríguez, E., (2014). Financial Literacy and the Success of Small Businesses: An Observation from a Small Business Development Center. *Numeracy: Advancing Education in Quantitative Literacy*, *7*(1), pp. 1-12.

de Bassa Scheresberg, C., Lusardi, A. and Yakoboski, P.J., (2014). Working Women's Financial Capability: An Analysis across Family Status and Career Stages.

Egbo, O. P., Ezeaku, H., Igwemeka, E., & Okeke, O. M. (2020). Financial literacy and access: revisiting the bridges and barriers to women entrepreneurship in Nigeria. *Amazonia Investiga*, *9*(29), pp. 436-444.

Eniola, A.A. and Entebang, H., (2016). Financial literacy and SME firm performance. *International Journal of Research Studies in Management*, *5*(1), pp.31-43.

Eniola, A.A. and Entebang, H., (2017). SME managers and financial literacy. *Global Business Review*, *18*(3), pp.559-576.

Fatoki, O., (2014). The financial literacy of micro entrepreneurs in South Africa. *Journal of social sciences*, *40*(2), pp.151-158.

Garman, E.T., Leech, I.E. and Grable, J.E., (1996). The negative impact of employee poor personal financial behaviors on employers. *Financial counseling and planning*, *7*(1), pp.157-168.

Goodell, J.W., (2020). COVID-19 and finance: Agendas for future research. *Finance research letters*, *35*, p.101512.

Grifoni, A. and Messy, F.A., (2012). Current status of national strategies for financial education: A comparative analysis and relevant practices. *OECD Working Papers on Finance, Insurance and Private Pensions*, (16), p.1.

Gusti, G.P., Agustira, Y. and Tawakkal, M.R., (2021). The Role Of Financial Literation In Moderating The Relationship Between Access To Financial And The Growth Of Msmes In West Kalimantan Province–Indonesia. *Malaysian E Commerce Journal (MECJ)*, *5*(1), pp.1-6.

Hastings, J. and Mitchell, O.S., (2020). How financial literacy and impatience shape retirement wealth and investment behaviors. *Journal of Pension Economics & Finance*, *19*(1), pp.1-20.

Hossain, M., Ibrahim, Y. and Uddin, M. (2020. Finance, financial literacy and small firm financial growth in Bangladesh: the effectiveness of government support, *Journal of Small Business and Entrepreneurship*. 32, pp. 1-26.

Jana, D., Sinha, A. and Gupta, A., (2019). Determinants of financial literacy and use of financial services: an empirical study amongst the unorganized sector workers in Indian scenario. *Iranian Journal of Management Studies*, *12*(4), pp.657-675.

Jiyane, G. and Zawada, B. (2013). Sustaining informal sector women entrepreneurs through financial literacy", International Journal of Libraries and Information Studies. 63(1), pp. 47-56.

Kapoor, D., Nirola, A., Kapoor, V. and Gambhir, R.S., (2014). Knowledge and awareness regarding biomedical waste management in dental teaching institutions in India-A systematic review. *Journal of clinical and experimental dentistry*, *6*(4), p.e419.

Klapper, L. and Panos, G.A., (2011). Financial literacy and retirement planning: the Russian case. *Journal of Pension Economics & Finance*, *10*(4), pp.599-618.

Liu, B., Wang, J., Chan, K. C., & Fung, A. (2021). The impact of entrepreneurs's financial literacy on innovation within small and medium-sized enterprises. *International Small Business Journal*, *39*(3), pp.228-246.

Lusardi, A. and Mitchell, O.S., (2017). How ordinary consumers make complex economic decisions: Financial literacy and retirement readiness. *Quarterly Journal of Finance*, *7*(03), p.1750008.

Lusardi, A. and Wallace, D., (2013). Financial literacy and quantitative reasoning in the high school and college classroom. *Numeracy*, *6*(2), p.1.

Lusardi, A., & Mitchell, O. S. (2011). Financial literacy around the world: an overview. *Journal of pension economics & finance*, *10*(4), pp. 497-508.

Lusardi, A., Mitchell, O. S., & Curto, V. (2009). *Financial literacy and financial sophistication among older Americans* (No. w15469). National Bureau of Economic Research.

Marshall, A., (1890). Principles of Economics, 8th edn (1920). *London, Mcmillan*.

Mien, N. T. N., & Thao, T. P. (2015, July). Factors affecting personal financial management behaviors: Evidence from Vietnam. In *Proceedings of the Second Asia-Pacific Conference on Global Business, Economics, Finance and Social Sciences (AP15Vietnam Conference)* (Vol. 10, No. 5, pp. 1-16).

Mihalcova, B., Gallo, P., & Lukac. J. (2020). Management of Innovations in Finance Education: Cluster Analysis for OECD Countries. *Marketing and Management of Innovations*, 1, pp. 235-244, Moore, D.L., (2003). *Survey of financial literacy in Washington State: Knowledge, behavior, attitudes, and experiences*. Washington State Department of Financial Institutions.

Munyuki, T., & Jonah, C. M. P. (2021). The nexus between financial literacy and entrepreneurial success among young entrepreneurs from a low-income community in Cape Town: a mixed-method analysis. *Journal of Entrepreneurship in Emerging Economies*, *14*(1), pp.137-157.

Mutegi, K. And Phelister, N. (2015). Financial literacy and its impact on loan repayment by small and medium entrepreneurs. *International journal of economics, commerce and management*, pp. 1- 28.

Nielsen, H. (2017). *The Roles of Finance functions, Management Accounting, and Lean*. Aalborg Universitetsforlag. Ph.d.-serien for Det Ingeniør- og Naturvidenskabelige Fakultet, Aalborg Universitet.

Njoroge, C. W. and Gathungu, J. M. (2013). The Effect of Entrepreneurial Education and Training on Development of Small and Medium Size Enterprises in Githunguri District - Kenya", *International Journal of Education and Research*, 1(8), pp. 1-22.

Njoroge, R.M., (2013). *Relationship between financial literacy and entrepreneurial success in Nairobi County Kenya* (Doctoral dissertation, University of Nairobi).

Nunoo, J., Andoh, K. F., & Darfor, K. (2015). Sustaining small and medium enterprises through financial service utilization: Does financial literacy matter. *Journal of Small Business and Enterprise Development, 5*(1), 74–94.

Okello, G.C.B., Ntayi, J.M., Munene, J.C. and Nkote, N.I. (2016). Financial Inclusion in Rural Uganda: Testing Interaction Effect of Financial Literacy and Networks, *Journal of African Business*, 17(1): pp. 106-128.

Oseifuah, K. E. (2010). Financial literacy and youth entrepreneurship in South Africa. *African Journal of Economic and Management Studies*, 1(2); pp. 164–182.

Otieno, S., Lumumba, M., Ojera, P. and Alphonce, J.O., (2011). Effect of provision of micro-finance on the performance of micro-enterprises: A study of youth micro-enterprises under Kenya Rural Enterprise Program (K-REP), Kisii County, Kenya. *African Journal of Business Management*, *5*(20), pp.8290-8300.

Perry, V., & Morris, M. D. (2005). Who is in control? The role of self-perception, knowledge, and income in explaining consumer financial behavior. *The Journal of Consumer Affairs*, 39(2), pp. 299- 312.

Purnomo, B.R., (2019). Artistic orientation, financial literacy and entrepreneurial performance. *Journal of Enterprising Communities: People and Places in the Global Economy*, *13*(1/2), pp.105-128.

Rachapaettayakom, P., Wiriyapinit, M., Cooharojananone, N., Tanthanongsakkun, S., & Charoenruk, N. (2020). The need for financial knowledge acquisition tools and technology by small business entrepreneurs. *Journal of Innovation and Entrepreneurship*, *9*(1), pp. 1-28.

Rajna, A., & Ezat, W. P. (2011). Financial management attitude and practice among the Medical Practitioners in Public and Private Medical Service in Malaysia. *International Journal of Business and Management*, 6(8), pp.105–113.

Reich, C. M., & Berman, J. S. (2015). Do financial literacy classes help? An experimental assessment in a low-income population. *Journal of Social Service Research*, *41*(2), pp. 193-203.

Riepe, J., Rudeloff, M. and Veer, T., (2022). Financial literacy and entrepreneurial risk aversion. *Journal of Small Business Management*, *60*(2), pp.289-308.

Riwayati, H. E. (2017). Financial inclusion of business players in mediating the success of small and medium enterprises in Indonesia. *International Journal of Economics and Financial Issues*, *7*(4), pp. 623-627.

Saptono, A., (2018). Entrepreneurship education and its influence on financial literacy and entrepreneurship skills in college. *Journal of Entrepreneurship Education*, *21*(4), pp.1-11.

Schiffer, M., & Weder, B. (2001). Firm Size and the Business Environment: Worldwide Survey Results, IFC discussion paper number 43, pp.1- 47.

Schumpeter, J. (1934). The Theory of Economic Development, Harvard University Press, Cambridge, MA.

Sebstad, J., & Cohen, M. (2003). Financial education for the poor. Financial Literacy Project, Working Paper, 1, pp. 2-17.

Sherraden, M. S. (2010). financial capability: What is it, and how can it be created. Center for Social Development Working Papers, pp.10-17.

Siekei, J., Wagoki, J. and Kalio, A., (2013). An assessment of the role of financial literacy on performance of small and micro enterprises: Case of Equity Group Foundation training program on SMEs in Njoro District, Kenya. *Business & Applied Sciences*, *1*(7), pp.250-271.

Singla, A., & Mallik, G. (2021). Determinants of financial literacy: Empirical evidence from micro and small enterprises in India. *Asia Pacific Management Review*, *26*(4), 248-255.

Susan, M. (2020). Financial literacy and growth of micro, small, and medium enterprises in west java, Indonesia. In *Advanced Issues in the Economics of Emerging Markets*. Emerald Publishing Limited. 27, p. 39.

Timmons, J. A., Spinelli, S., & Tan, Y. (2004). *New venture creation: Entrepreneurship for the 21st century* (Vol. 6). New York: McGraw-Hill/Irwin.

Van Rooij, M., Lusardi, A., & Alessie, R. (2011). Financial literacy and stock market participation. *Journal of Financial economics*, *101*(2), pp. 449-472.

Webster, L. and Fidler, P., (1996). The informal sector and microfinance institutions in West Africa.

Wickham, P.A., (1998). Strategic Entrepreneurship: A Decision-Making Approach to New Venture Creation and Management (London: Pitman).

Ye, J., & Kulathunga, K. M. M. C. B. (2019). How does financial literacy promote sustainability in SMEs? A developing country perspective. *Sustainability*, *11*(10), p. 2990.

Yoshino, N., Morgan, P.J. and Wignaraja, G., (2015). *Financial education in Asia: Assessment and recommendations* (No. 534). ADBI Working Paper.