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#### **Research Article**

# Building Sustainable Performance of MSMEs through Financial Management Capabilities and Sustainable Business Model

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#### **ABSTRACT**

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The research explores the impact of financial knowledge and competences on the viability of small businesses in Central Java, Indonesia. Through a survey-based approach involving 350 small business proprietors, the study The acquired data was analyzed Using structural equation modeling (SEM). The results indicate that sustainability in the environment, monetary sustainability, and social responsibility greatly contribute to the sustainability of small businesses in Central Java. Moreover, the study reveals a positive impact of financial literacy and capabilities practices on firm sustainability. However, using savings products exhibits a notable adverse effect on firm sustainability. These findings underscore the importance of integrating sustainability models into small business operations and enhancing financial knowledge among proprietors to ensure sustainability. Additionally, the research suggests that small business owners should make informed decisions regarding investment products that align with their risk tolerance when considering savings allocation.

**Keywords:** Environmental sustainability; financial literacy; financial capabilities; small firm corporate sustainability; social responsibility and inclusion.

#### 1. INTRODUCTION

Since the establishment of the Sustainable Development Goals in 2015, there has been a growing acknowledgment of the need for a fundamental shift in business operations worldwide. Merely establishing and managing a traditional business enterprise is no longer adequate; instead, entrepreneurs must embrace strategies that prioritize the triple bottom line to achieve global significance and garner support from relevant governmental bodies and financial institutions. The concept of a sustainable business model involves the integration of social, environmental, and economic activities, thus fostering social value creation and environmental preservation within expanding enterprises (Schaltegger, Hansen, and Lüdeke-Freund, 2012). Bocken et al. (2013) Sustainable business models are ones that seek multiple types of value for a larger range of stakeholders, rather than only economic gain for firm owners.

Micro enterprises are recognized as important agents in stimulating growth in the economy through avenues such as job creation, reducing inequality, distribution of wealth, making use of local resources, embrace of adaptive technology, promotion of creativity and innovation, and cultivation of skilled and basic labor forces for future industrial development (Ejemeyovwi and Osabuohien, 2020). Integrating proper business models inside micro, small, and medium-sized firms is critical for Indonesia's future growth.

The Indonesian business environment is dominated by micro, small, and medium-sized firms. Their operational impact, if negative, can exert a deeper influence on the environment and society than that of larger corporations. The global financial crisis of 2007/2008 was partly attributed to reckless lending practices targeting self-employed individuals with low incomes in the United States (Brian, 2019). Small businesses span the entire

spectrum of Indonesia's economic sectors and play a crucial role in various niches. Disseminating education on sustainable business models holds significant promise for reshaping business operations and management across Indonesia, particularly as the world grapples with the challenges posed by climate change, thereby expediting progress toward sustainable development goals.

To reduce all forms of poverty, micro, small, and medium-sized companies (MSMEs) should be encouraged by improving their access to capital. Accessing proper money at various phases of business development demands necessary knowledge and abilities in navigating the financial market and selecting acceptable financial solutions. Aside from poor earnings, many people are impoverished because they lack understanding about managing and utilizing existing financial resources to their advantage. Financial literacy means gaining the essential information and abilities, allowing people to use various financial products to improve their quality of life. Financial competence, on the other hand, refers to the attitude, conduct, skills, knowledge, and self-awareness needed to make the optimal money management decisions for one's situation. This improves access to relevant financial services and the capacity to negotiate the financial sector (OECD, 2016). The rising complexity of the current financial world needs entrepreneurs' grasp of the financial markets itself, as well as how a society's economic stability and progress may be efficiently maintained.

Financial literacy is critical for entrepreneurs since they face complex decisions throughout their company journey. As a result, knowing the financial system and its functioning helps one better comprehend financing alternatives and the availability of financial support services in the environment (Borg 2017). Financial literacy helps entrepreneurs distinguish between personal and corporate finances, understand the prices and inherent hazards of financial products, forecast the company's future financial needs under various situations, and plan suitable solutions to fulfill demand. Moreover, financial knowledge enables business owners to better comprehend financial service providers, plan their company's creditworthiness and investment strategy, and detect business risks and exposure. Entrepreneurs may also link their company's financial needs to the country's legal and fiscal structures, resulting in greater corporate tax efficiency. They utilize financial data to assess business performance and create policies and processes to increase corporate sustainability (Borg 2017).

In May 2018, the sixth OECD Global Financial Literacy Education Consortium brought together 220 policymakers, bank regulators, researchers, and financial industry specialists from about 70 countries to examine the importance of financial education in achieving long-term and equitable growth. They discussed the link between various economic, social, and financial outcomes and financial education programs (OECD 2018). They all agreed that financial knowledge is essential for ensuring financial stability and sustainable growth. The 2008 global financial crisis demonstrated that poor individual financial decisions may have an impact on the global financial system (OECD 2018). Financial literacy can help to drive global economic growth and sustainable development by improving financial inclusion and well-being outcomes (Babajide, Adegboye, and Omankhanlen 2015; OECD 2018).

Bridging the disparities between and within nations can be accomplished by increasing financial literacy competency globally, resulting in a more inclusive society for all. Financial education strategies that promote wider economic and social goals can increase customers' resilience to financial shocks. The global average financial literacy competences among adults, computed in 2016, indicated an average score of 13.2 out of 21 points (9 for conduct, 7 for knowledge, and 5 for attitudes) among participating nations. The average score for OECD nations was 13.7, showing that there is plenty of potential for development internationally. The acquired score fell short of expectations for a variety of reasons; while some countries scored well on financial knowledge, their financial conduct and attitude scores were poor. For example, Latvia and Estonia have low average financial literacy ratings while having good financial understanding (OECD 2018).

Notwithstanding substantial study on sustainable business models and financial literacy as independent factors, the extent to which these two variables complement one another is unknown in the literature. Indonesia's present financial environment has become increasingly complicated, compelling enterprises to independently traverse the financial market for productive operations, ultimately contributing to the country's economic stability and progress (Borg 2017; Brian 2019). Furthermore, ongoing insecurity and inadequate institutional frameworks in the nation have compounded these challenges, threatening the country's intended economic stability and social growth (Aleyomi and Nwagwu, 2020). As a result, there is an urgent need for sustainable security models that focus on human and national security to address issues such as cyclical violence, widespread corruption, infrastructural

deficiencies, political violence, and the breakdown of the rule of law, thereby fostering productive operations, sustainable business practices, and achieving economic stability and development (Innocent et al., 2017).

The purpose of this research is to look at the influence of financial literacy and financial capacities in improving the long-term viability of small businesses in Indonesia. While much study has been done in this field in developed nations, developing economies have yet to completely adopt sustainable business models and practices, particularly among small businesses. Previous research has mostly concentrated on huge corporations, ignoring the combined influence of numerous micro and small enterprises functioning in Indonesia. Thus, this study intends to address the literature vacuum on sustainable business practices among small business owners in Indonesia, as well as the effect of financial literacy and capacity on increased corporate sustainability. The study aims to answer the following questions: (i) how much financial sustainability, environmental sustainability, and social responsibility influence sustainable business models in Indonesia, and (ii) how much financial literacy and financial capabilities improve sustainable business models among small business owners in Indonesia. The remaining portions of the article are divided into four categories: literature review, methodology, findings presentation, discussion, conclusion, and suggestion.

#### 2. LITERATURE REVIEW

#### 2.1. Conceptual framework

A sustainable business model firm is characterized by its integration of social and environmental considerations into its decision-making processes, making these priorities central to all current and future engagements (Garetti and Taisch 2012). Such models adopt a global market perspective, addressing the development of newly industrialized countries and the increasing demand for sustainable products and services (Schaltegger, Hansen, and Lüdeke-Freund 2012). Bocken et al. (2013) emphasize that sustainable business models create value for both customers and society by harmonizing social, environmental, and business activities. The essence of sustainable business practices lies in ensuring that present business activities do not compromise the future, extending beyond mere economic value creation for stakeholders.

Wells (2013) lists four aspects that differentiate the environmentally conscious company approach from traditional practices: The value proposition adds measurable ecological and/or social value to commercial value; the supply chain holds suppliers accountable for what they do as well as the focal organization's stakeholders; the customer interface encourages customers to take pride in what they buy as well as the company's stakeholders; and the accounting structure ensures that monetary costs and benefits are distributed fairly among various stakeholders. Thus, conducting business entails more than just making a profit for the business owner; it also demands responsible behavior, with all parties involved bearing responsibility for their actions. A business model that is environmentally friendly adheres to core concepts regarding sustainability such as energy savings, social relevance, localization and involvement, longevity, ethical sourcing, and creation of jobs (Wells 2013; Upward and Jones 2016).

Longevity metrics assess the consequences of business model decisions on longevity (Abdelkafi and Tauscher 2016). Geissdoerfer, Vladimirova, and Evans (2018) describe profitable enterprises as those that include longevity into the value they offer and creative logic, therefore helping consumers, the environment, and/or society. Evans et al. (2017) present five claims that describe profitable company models: Renewable value encompasses financial, social, and ecological benefits; these models necessitate a system of beneficial value flows among multiple stakeholders; they necessitate a value network with a new purpose, design, and governance; they require systemic consideration of stakeholder interests and responsibilities for mutual value creation; and they address business externalities through product-service systems, fostering innovation toward sustainable business.

Ensuring a sustainable business model should be a societal concern, particularly in Indonesia, where the business landscape is dominated by micro, small, and medium enterprises (MSMEs). Given reported weaknesses in regulatory institutions' enforcement of rules and regulations (Matthew and Adegboye 2014; Osabuohien et al. 2021), genuine education promoting natural willingness is essential. Educating small business owners and fostering societal ownership in enforcing sustainability is imperative. Financial education, a crucial aspect of business education, enhances individuals' knowledge of financial market products and models and develops skills to strengthen proficiency (OECD 2016). Financially empowered citizens make informed choices, contributing to overall societal welfare and economic growth. Financial capability encompasses financial literacy, education, knowledge, skills, and

money management abilities, enabling individuals to make informed financial decisions that enhance business sustainability.

#### 2.2. Environmental sustainability and corporate sustainability

Marni (2020) proposed that environmental sustainability entails working responsibly with the world in order to protect natural resources and ensure future generations' capacity to satisfy their needs. According to the United Nations (UN) World Commission on Environment and Development (2020), environmental sustainability revolves around conserving natural resources for future generations, taking into account human needs, well-being, and non-economic factors such as clean air and water, as well as the protection of endangered plant and animal species, and promoting health and education. The International Union for Conservation of Nature (IUCN) (2020) defines environmental sustainability as the ability to improve human life quality within supportive ecosystems, as well as the critical need to stabilize the currently disrupted relationship between human culture and the natural world (Anderson and Lanier 2019).

As humanity's numbers grew, so did our reliance on the Earth's natural resources—minerals, petroleum, coal, gas, and biodiversity, which includes a variety of species. However, these resources are depleting at a quicker pace than they can be supplied or regenerated. In the literature on environmental sustainability and company performance, two major approaches emerge. Friedman (1962) stated the standard stance, which holds that expenditures in environmental sustainability may have a short-term negative impact on company profitability and competition. This viewpoint proposes a negative linear link between economic performance (EcP) and environmental performance (EnP). In contrast, the reformist school of thinking, represented by authors such as Wagner (2005), contends that the connection is better understood as an inverted U-shaped curve, forecasting a positive link between EcP and EnP until EcP hits its peak. The renovating school proposes a positive relationship between EnP, EcP, and financial performance (FP), arguing that costs associated with environmental performance are investments that yield greater economic and financial returns due to differentiation and increased competitiveness in the medium to long run. Good environmental performance is intended to result in improved resource efficiency, lower emissions, and the avoidance of unexpected expenditures such as litigation, compensation, and fines (Verdeke 2009).

However, Nyirenda, Ngwakwe, and Ambe (2013) found no significant association between environmental management techniques and financial success in South Indonesia's mining industry. Despite an increasing number of studies indicating a positive relationship between environmental sustainability and corporate sustainability (Gupta and Goldar 2005; King and Lenox 2002), there is no clear consensus in the literature on the impact of environmentally responsible business practices on financial profits and sustainability (Wagner 2005). There is a particular void in current research on small businesses. This study seeks to fill this gap by examining whether environmental sustainability improves the corporate sustainability of small businesses. Thus, the theory states that:

H1: Environmental Sustainability is a significant determinant of sustainability among small business firms in Indonesia.

#### 2.3. Financial performance and corporate sustainability

Alshehhi, Nobanee, and Khare (2018) analyzed 132 top-tier journal publications on the relationship between company sustainability and financial success. Their study indicated that 78% of the journals found a link between business sustainability and financial success. However, differences in study techniques and different measures caused variances in the apparent association. Recent studies indicate that the field is rapidly changing away from a focus on overall sustainability and toward a narrower view of corporate social responsibility (CSR), which stresses the social element of sustainability with little regard for the environmental and economic dimensions. This emphasizes the need for more study to better understand the link between sustainable organizational practices and financial performance.

Taib, Ameer, and Haniff (2012) investigated the relationship between corporate sustainability practices and financial performance among listed businesses in the United Kingdom and the United States from 2005 to 2009. They used public sustainability reports from both nations. Their data suggested an increase in disclosures on diversity and ethical behaviors after 2008. Furthermore, UK corporations demonstrated better levels of disclosure than their US counterparts regarding community participation, diversity, environmental standards, and ethical conduct. Gungor and Dincel (2018) used MANOVA analysis to investigate the link between sustainability levels and Turkey's

financial success metrics. The results revealed a statistically significant effect of sustainability levels on the group mean of Corporate Governance Index, Gross Profit Margin, and Current Ratio, implying that integrating sustainability into business operations improves the ability to allocate resources effectively, fostering corporate resilience and value creation.

Hussain (2015) investigated the relationship between sustainability practices (economic, environmental, and social) and financial performance. Data on sustainable practices were gathered from a manual content study of Global Fortune N100 corporations' sustainability reports between 2007 and 2011. The findings suggested that economic performance information was not useful. However, the environmental and social components of sustainability remained relevant and important across multiple financial performance criteria. Siminica et al. (2019) used structural equation modeling to investigate the links between different elements of corporate social responsibility (CSR - economic, environmental, and social), financial performance (ROA, ROE), and corporate governance (CG). Their findings indicated that the various nature and substance of CSR produced varying outcomes in the two aspects of financial performance indicators and the corporate governance index. Using the material mentioned above, the study proposes the premise that:

H2: Financial sustainability is a significant determinant of sustainability among small business firms in Indonesia.

## 2.4. Corporate social responsibility, social inclusion, and Corporate Sustainability

Montiel (2008) distinguished between Corporate Social Responsibility (CSR) and Corporate Sustainability (CS) to help academics delineate the components of both words for more rigorous study results. The author stated that, while they are independent domains, current research suggests a convergence between them. CSR frequently focuses on charity undertakings, whereas CS addresses larger social and environmental challenges in management science, calling for expanded joint research efforts. Wekesa and Kimutai (2018) define CSR as building capacity for sustainable development, respecting cultural diversity, and creating social value. CSR (Williamson, Stampe-Knippel, and Weber 2014) refers to a corporation's voluntary contribution to societal advancement, environmental preservation, and sustainable development. Fontaine (2013) discovered a positive relationship between CSR and corporate sustainability, implying that organizations with excellent performance and low risk are more likely to engage in socially responsible activities, resulting in improved sales, net income, and profits per share (EPS). Oginni and Omojowo (2015) conducted a study of 335 Cameroonian businesses to explore the economic, social, and environmental elements of sustainable development and CSR. Their studies indicated that Cameroonian industries emphasize the environmental and social factors above the economic dimensions.

Large firms frequently launch extensive CSR efforts that encourage sustainable business practices through philanthropy. Williamson, Stampe-Knippel, and Weber (2014) emphasize the need of incorporating social, ethical, and environmental aspects, particularly human rights concerns, into business operations to improve European businesses' success in adopting sustainable business models. However, Oginni and Omojowo (2015) point out a lack of evidence of available legislation or reforms aimed at redefining CSR activities among corporate organizations in Sub-Saharan Indonesia to match with sustainable development goals. The United Nations Conference on Trade and Development (UNCTAD) (2019) highlights the role of entrepreneurship in promoting ethical corporate practices and social inclusion. Adapting and expanding UNCTAD's entrepreneurial policy framework can help address difficulties of inclusive growth, such as increasing job opportunities and promoting inclusive outcomes for disadvantaged populations (Babajide et al. 2020a).

Ganescu (2012) stated that social responsibility policies have a substantial influence on corporate sustainability strategies, notably in the European automobile industry, where firms may use CSR to improve sustainable business practices and achieve sustainable growth. While there is a growing amount of literature on CSR and business sustainability, the majority of research are undertaken in developed economies, motivating this study to fill the knowledge gap in Indonesia. So, the study hypothesizes that:

H3: Corporate Social Responsibility is a significant determinant of sustainability among small business firms in Indonesia.

# 2.5. Financial literacy and sustainable business models

Numerous studies have attempted to highlight the importance of financial literacy in the performance and sustainability of SMEs (Deakins and Hussain 1994). Beal and Delpachitra (2003) describe financial literacy as a vital

ability that enables individuals to make well-informed decisions while navigating financial markets, hence debunking financial myths. Enhanced financial literacy among business leaders can improve a company's access to credit and reduce financial losses caused by bad decision-making. Small business owners sometimes experience high loan rejection rates owing to insufficient financial statement preparation and little knowledge of accounting systems (Deakins and Hussain 1994). Small company owners can increase their chances of obtaining financial resources by streamlining financial statement production and rapidly sharing useful information to stakeholders such as bankers and lenders (2013). Financial literacy helps small company owners prepare loan applications and make persuasive arguments during customer interviews, addressing the obstacles offered by dynamic business and financial market conditions (Lusardi and Mitchell 2011). Essentially, financial literacy improves SMEs' access to resources, lowers financing costs, and makes it easier to develop a strong capital structure, which is an important driver of business sustainability (Areo, Gershon, and Osabuohien 2020).

While previous research has thoroughly investigated the impact of financial literacy on SME performance, its impact on corporate sustainability or the development of sustainable business models has received little attention (Lusardi and Mitchell 2011, Eniola and Entebang 2015). The survey also looks at financial competence, which goes beyond financial literacy to include financial knowledge, skills, and money management abilities (OECD 2016). Financially capable people have the proper attitudes about money management, are aware of financial possibilities, make educated decisions customized to their current circumstances, and take proactive actions to improve their financial well-being. Finally, financial competence helps to promote sustainable company practices by demonstrating excellent money management abilities and making informed decisions (Borg 2017). Numerous research on SME finance have found that a shortage of capital is a major barrier for small business owners. It is possible that the biggest barrier encountered by small company owners is financial illiteracy, which limits their capacity to acquire accessible finance or efficiently manage their firm earnings. According to financial decision-making research, financially illiterate people shun financial markets because they can't traverse them successfully (Agarwal, Chomsisengphet, and Lim 2017). Hence, the study presents the premise that:

H4: financial literacy and financial capability are positively related to SME sustainability

#### 3. METHODS

## 3.1. Data

This study used a survey research approach, with a standardized questionnaire to collect quantitative data for evaluating the factors under consideration. The study examined the importance of financial knowledge and competences in developing a sustainable company strategy in Indonesia. A sample of 350 micro, small, and medium-sized companies (MSMEs) was chosen at random for participation. Following data cleaning processes, a total of 180 replies were considered appropriate for analysis. Participants were able to express their preferences thanks to the questionnaire's multiple-choice format. It was divided into three sections: the first collected information on respondents' socioeconomic and company characteristics, the second assessed their financial literacy and capacities, and the third examined their practices in terms of sustainable business models. Financial literacy and capacities characteristics were measured based on the work of Lusardi and Mitchell (2011), Eniola and Entebang (2015), and the OECD (2018).

The assessment of sustainable business model factors was based on Geissdoerfer, Vladimirova, and Evans' (2018) comprehensive literature review. The study's assumptions were examined using the Structural Equation Model (SEM) in STATA 12. Confirmatory and exploratory factor analysis were used to analyze and modify the scale's components, as well as to test the validity of the discriminant variables between discovered constructs. Principal Component Analysis (PCA) was employed to simplify the construct into manageable variables for SEM analysis.

## 3.2. Measurement of reliability and validity of the model

The constructs for the dependent and independent variables were examined for internal consistency, reliability, and item loadings. The results reveal that they all fall within the permissible range of 0.70. The Cronbach's Alpha score indicates that the item variables exceed the acceptable range of 0.70 (Ringle, Wende, and Becker 2015). This means that the variables utilized in the study were dependable. The concept validity analyzes how well a test measures what it is designed to measure (Fornell and Larcker 1981). Ringle, Wende, and Becker (2015) evaluated the

discriminant's convergency and validity. Composite reliability (CR) and average variance extracted (AVEs) both met the minimum of 0.70 and 0.50, respectively (Fornell and Larcker 1981; Ringle, Wende, and Becker 2015).

### 4. RESULTS AND DISCUSSION

The study was carried out utilizing frequency, structural equation modelling, and partial least squares. The section begins with frequency tables and then proceeds to hypothesis testing.

# 4.1. Social-economic and business characteristics of respondents

The male gender accounts for 72 (51.4%) of the responses, followed by the female gender with 68. The majority are 35-44-52 (37.1%) and 45-59-43 (30.7%). The majority, 90 (64.3%), have finished their higher education, implying that they understand and can speak on the issue. Mostly in the service industry, they earned less than N50,000 per month last year and employed fewer than five people in their firm. The majority of firms 68 (48.6%) have been in operation for 1-3 years, while 91 (64%) are in metropolitan areas.

## 4.2. Goodness of fit model

The analysis results show that all indicators have factor loading values > 0.70. Apart from that, the value of the reliability of the construct is also fulfilled because it is > 0.70. The results of the Goodness of fit statistics analysis also show that all aspects have values above the recommended parameters.

F.L C.A Rho A AVE **Items** CR FS<sub>1</sub> 0.826 FS<sub>2</sub> 0.798 FS3 0.871 0.867 0.886 0.876 0.786 SR<sub>1</sub> 0.862 SR<sub>2</sub> 0.815 SR<sub>3</sub> 0.761 0.863 0.857 0.762 0.872 FL1 0.798 FL2 0.776 FL3 0.857 FL4 0.821 FL<sub>5</sub> 0.753 FL6 0.735 FL8 0.837 0.872 0.826 0.842 0.725 ES<sub>1</sub> 0.885ES<sub>2</sub> 0.728 ES<sub>3</sub> 0.962 0.782 0.752 0.925 0.934

Table 1. Item loadings & reliability of the construct

Notes: FS is financial sustainability, SR is social responsibility, ES is environment sustainability, F.L is item loadings, C. A is Cronbach's alpha, C.R is composite reliability, and AVE is the average variance extracted.

Model	Parameters recommended	<b>Goodness of fit</b>
X <sup>2</sup> /DF	<3.0	78.982
P-Value	<0.05	0.000
IFI	>0.9	0.826
NFI	>0.9	0.916
CFI	>0.9	0.978
GFI	>0.8	0.927
AGFI	>0.8	0.936
RMSEA	<0.008	0.826

**Table 2.** The goodness of fit statistics

Notes:  $X^2/DF$  is chi-square/degree of freedom; p-value means significant level; IFI is incremental fix index; NFI; denotes normed fit index; CFI is a comparative fit index, GFI refers to goodness of fit index; AGFI is adjusted goodness of fit; RMSEA is root mean square error of approximation.

## 4.3. Financial knowledge and capabilities

The respondents' level of financial knowledge and capabilities varied across different aspects. Forty-eight respondents, representing 40% of the total, indicated that they maintained records of all income and expenditure, while 72 respondents (60%) acknowledged keeping records but not all of them. Sixty respondents (45%) expressed agreement with the idea of investing excess assets over liabilities, whereas only ten respondents (10%) agreed to spend excess assets over liabilities. A significant portion, 56 respondents (40%), agreed that the optimal way to manage a business when facing a cash shortage before the next income is to reduce expenses and increase savings, while 55 respondents (27%) favored borrowing from friends and family, and 20 respondents (13%) suggested drawing from savings. Surprisingly, a vast majority, 114 respondents (80%), do not engage in investment activities in the capital market, while only 14 respondents (12%) reported investing in the capital market. Although 101 respondents (75%) have heard of insurance products, they have never purchased an insurance policy, while 25 respondents (20%) have both heard of and bought an insurance policy. These findings shed light on potential factors contributing to the high mortality rate among small businesses. Furthermore, 86 respondents (65%) are aware that they can insure their businesses against unforeseen circumstances, while 34 respondents (24.3%) are unaware of this possibility. Regarding the justification for taking credit, 89 respondents (63%) believe that borrowing is viable when there is an investment opportunity, whereas 7 respondents (5%) are uncertain about when to apply for credit. In terms of savings knowledge, 97 respondents (68.7%) agree that consistency with the same amount over a long period is the best way to save, while 12 respondents (7.3%) indicate saving only when convenient. This indicates that the majority understands how savings and savings products work. Overall, this section highlights that the majority of small business owners with higher educational degrees have a reasonable level of financial expertise of products and operations.

#### 4.4. Sustainability practice among small business owners

Forty-seven percent of the respondents indicated that they occasionally recycle and reuse old items, while 30.1% stated that they always engage in such practices. This indicates a level of awareness among these entrepreneurs regarding the repercussions of resource depletion. Additionally, small business owners demonstrate an awareness of the environmental impact of improper waste disposal. Fifty-two respondents (31%) reported always adhering to proper waste disposal practices, 45 (32%) stated that they sometimes do so, 15 (11%) mentioned rarely, and 9 (12%) indicated never. Regarding the use of renewable energy, 48 respondents (37%) stated that they occasionally operate their businesses using renewable energy sources, 20 (17%) reported always doing so, and 37 (22%) mentioned rarely utilizing renewable energy. This answer might be impacted by the perceived high cost of solar panels, which may not be economically feasible for small company owners. In terms of social responsibility, 49 respondents (38%) claimed

that they occasionally participate in community development projects, 36 (29%) stated that they seldom engage in such activities, and 10 (11%) stated that they usually do.

Regarding inclusive employment policies, 77 respondents (55%) strongly agree, and 30 (20%) agree with the implementation of all-inclusive employment policies in their businesses. Only 4 (3%) and 9 (6%) disagreed and strongly disagreed, respectively, with such policies. Furthermore, 59 respondents (41%) strongly agree that Their businesses have fair pricing and good customer service procedures, however 20 (16%) and 3 (4%) disagree and strongly disagree with this assumption. These metrics give information on the scope of corporate social responsibility practices among small company owners in Indonesia.

Concerning economic sustainability, 48 respondents (35%) stated that their firms have strong corporate governance oversight, 32 (24%) mentioned that corporate governance is sometimes observed, and 14 (10%) indicated that there is no strong corporate governance in their organizations. Additionally, 27 respondents (18%) mentioned deliberate efforts to minimize waste in the production process, 61 (45%) stated that such efforts are sometimes made, while 11 (8%) indicated that no action is taken to minimize waste. Lastly, 55 respondents (40%) reported having an annual plan to increase their firm's earnings and expand their revenue base, while 42 (31%) stated that there is no such plan, and 29 (20%) found it difficult to answer the question. This analysis illustrates the sustainability practices adopted by small business owners across the three major sustainability dimensions, showcasing their efforts to integrate sustainability into their operations.

# 4.5. Hypotheses testing

The first hypothesis was tested using financial sustainability, environmental sustainability, and social responsibility as determinants of a sustainable business model.

Hypothesis		Beta	t-stat	P-value	Action
Н1а	$ES \rightarrow SBM$	0.976	4.267	0.000	Accepted
H1b	$FS \rightarrow SBM$	0.622	4.891	0.000	Accepted
H1c	$SR \rightarrow SBM$	0.485	3.167	0.000	Accepted

Table 3. Test of hypothesis

Note: FS – Financial sustainability, ES – Environment sustainability, SR – Social Responsibility, SBM – sustainable business model

The initial model (H1a) found a strong association between environmental sustainability and sustainable business models ( $\beta$  = 0.976; t = 4.267, p < 0.05). This finding suggests that environmental sustainability is critical to developing a sustainable business strategy. A 1% improvement in environmental sustainability is equivalent to a 97.6% rise in commercial sustainability. As a result, including measures like efficient trash disposal, recycling, renewable energy adoption, green space maintenance, and tree planting into small company operations helps to ensure long-term business development and preservation for future generations. This conclusion is consistent with previous research by Schaltegger, Hansen, and Lüdeke-Freund (2012), Bocken et al. (2013), Wells (2013), Babajide et al. (2020b), Evans (2020), and IUCN (2020), which supports the idea that environmental sustainability positively promotes a sustainable business model.

Hypothesis H1b, which offered financial sustainability as a predictor of a sustainable business model, provided significant results (FS:  $\beta$  = 0.622; t = 4.891, p < 0.05), leading to the adoption of the alternate hypothesis (H1b) and rejection of the null hypothesis. This shows that financial sustainability has a substantial impact on the development of a sustainable company model in Indonesia. According to the beta coefficient, every 1% improvement in financial sustainability leads to a 62.2% rise in company sustainability. As a result, practices such as profit generation, expense reduction, prudent profit investment, improvement in previous financial performance, consistent growth in return on investment and return on assets, and adherence to strong corporate governance principles promote ongoing business success and security. This finding supports previous research by Schaltegger, Hansen, and Lüdeke-Freund (2012), Evans et al. (2017), Alshehhi, Nobanee, and Khare (2018), Taib, Ameer, and

Haniff (2012), Gungor and Dinçel (2018), and Siminica et al. (2019), which found that financial sustainability is an important determinant of a sustainable business model.

The examination of social responsibility as a determinant of a sustainable business model (H1c) resulted in a significant relationship (SR:  $\beta$  = 0.485; t = 3.167, p < 0.05), leading to the acceptance of the alternate hypothesis (H1c). This indicates that social responsibility significantly influences sustainable business practices, implying that enhancing social responsibility enhances the sustainability of SME firms in Indonesia. The beta coefficient suggests that a 1% increase in social responsibility corresponds to a 48.5% increase in SME firm sustainability. Therefore, businesses contribute to societal welfare by ensuring fair wages and pricing, fostering social inclusivity through diverse hiring practices, and maintaining ethical customer relations. This finding is consistent with earlier studies by Nijhof and Bruijn (2007), Fontaine (2013), and Oginni and Omojowo (2015), underscoring the importance of maintaining strong social responsibility practices to bolster firm sustainability.

## 4.6. Drivers of sustainable business model path analysis

The second model tested the effect of financial literacy and financial capabilities on the sustainable business model. The regression result is reported in Table 3.

			Estimate	S.E.	C.R.	P-Value
Sustainable Buss. Prac	<b>←</b>	Finan_Pr_Kwn	0.214	0.086	2.718	0.008
Sustainable Buss. Prac	<b>←</b>	Finan_Plan_Bud	0.516	0.072	5.261	0.005
Sustainable Buss. Prac	<b>←</b>	Finan_Lit_Prof	0.156	0.152	2.387	0.003
Sustainable Buss. Prac	<del>(</del>	Sav_Kwn_Usa	-0.185	0.097	-1.826	0.031
Sustainable Buss. Prac	<del>(</del>	Finan_Mkt_Kwn	0.256	0.126	6.272	0.000
Sustainable Buss. Prac	<del>(</del>	Fin_Mg_Pra	0.025	0.281	5.267	0.018
Sustainable Buss. Prac	<del>(</del>	Ins_Kwn_Usa	0.152	0.104	2.635	0.008
Sustainable Buss. Prac	<del>(</del>	Con_Pro_Right	0.078	0.076	1.378	0.213
Sustainable Buss. Prac	<b>←</b>	Inov_Kwn_Usa	0.215	0.067	2.771	0.006
Sustainable Buss. Prac	<b>←</b>	Cr_Kwn_Usa	0.176	0.072	2.617	0.002
Environ_Sustaina	<del>(</del>	Sustainable Buss. Prac	0.827	0.086	5.627	0.017
Finan_Sustaina	<b>←</b>	Sustainable Buss. Prac	0.625	0.056	4.263	0.024
Social_Responsibility	<b>←</b>	Sustainable Buss. Prac	0.471	0.037	3.726	0.000

Table 4. Standardized regression weights

The factors of financial literacy and financial capacities are investigated using the sustainable business practice model. The findings show that knowledge of financial practices, which includes following standard accounting procedures such as keeping separate business and personal accounts and tracking expenditure and revenue, has a 1% impact on the sustainable business practice model. Every 1% improvement in financial practice knowledge results in a 21.4% increase in business sustainability. This shows that small business owners can improve the sustainability of their operations by employing standardized accounting methods.

likewise, the effect of financial planning and budgeting on the sustainable company model was evaluated. The findings show a strong and favorable correlation between financial planning and budgeting and sustainable company practices. Specifically, precise planning that tackles urgent financial difficulties and includes specific activities to attain financial goals improves business sustainability. Pursuant to the beta coefficient (FBP:  $\beta$  = 0.516; t = 5.261, p > 0.05), a 1% improvement in financial planning and budgeting increases business sustainability by 51.6%. As a result, small firms may improve their operational sustainability by carefully assessing their financial needs for a particular period, matching spending with income, and proactively managing periods of financial shortage or surplus.

This conclusion is consistent with previous research, which has emphasized the significance of financial planning and budgeting in supporting sustainable company practices (Wijewardena and De Zoysa 2001).

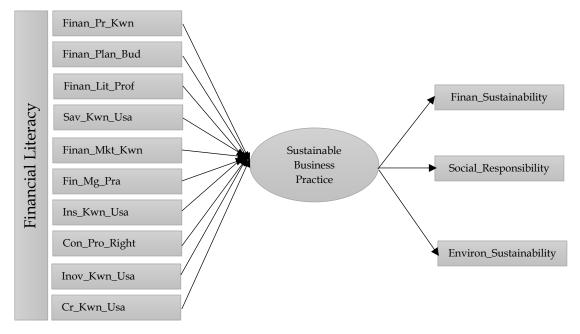


Figure 1. Financial literacy and sustainable business model

The study looked at how savings awareness and the use of savings products affected sustainable company models. The study found a significant negative correlation between savings knowledge and utilization (SKU:  $\beta$  = -0.185; t = 1.826, p = 0.022) and sustainable business strategies. This suggests that increasing savings awareness and utilization among small business owners may reduce firm sustainability, with a 1% increase leading in an 18.5% fall in sustainability. This might be ascribed to the low usefulness of savings products in Indonesia due to high inflation rates, as well as small company owners' insufficient use of existing savings choices. This outcome is consistent with earlier studies (Babajide 2016).

The study demonstrated a substantial positive correlation between financial literacy proficiency (FLP:  $\beta$  = 0.156; t = 2.387, p < 0.05) and sustainable company practices. This suggests that a 1% improvement in financial literacy competence results in a 15.6% increase in business sustainability. Effectively applying financial management knowledge and skills in areas such as financial planning, debt management, and understanding financial concepts like interest rates and the time value of money positively impacts firm sustainability, consistent with previous research (Nijhof and Bruijn, 2007). However, in this study, financial management techniques such as record-keeping and the use of professional accounting services had no meaningful impact on company sustainability. Similarly, understanding of consumer protection rights for financial goods had no substantial influence on firm sustainability, presumably due to a lack of resources and information among micro and small business owners in this area.

The study found a strong positive correlation between insurance product knowledge and utilization (IKU) and company sustainability ( $\beta$  = 0.152; t = 2.635; p < 0.05). Increased awareness and usage of insurance products have been shown to improve company sustainability by 15.2% for every 1% increase. Despite the limited acceptance of insurance products in Indonesia, small company owners understand their potential to manage risks and increase sustainability. Knowledge of the financial market has a considerable beneficial impact on company sustainability ( $\beta$  = 0.256; t = 6.272; p < 0.05), with a 1% increase leading to a 25.6% improvement. Understanding the financial sector empowers small company owners to make educated investment decisions and access available finances for business expansion.

Knowledge and usage of investment instruments such term deposits, stocks, bonds, and FX have a favorable influence on company sustainability (KIP:  $\beta$  = 0.215; t = 2.771; p < 0.05). A 1% increase in understanding and use of investment products resulted in a 21.5% increase in company sustainability, as small business owners strategically spent profits to improve sustainability. Credit product knowledge and usage showed a substantial positive correlation

with sustainable business models ( $\beta$  = 0.176; t = 2.617; p <.001). Proper credit understanding and utilization contribute to corporate growth and long-term sustainability.

#### **Discussion**

The study's findings underscore the crucial role of financial literacy and capabilities in driving firm sustainability. Introducing these elements significantly enhances the sustainability of small firms, with economic, environmental, and social factors playing pivotal roles in Indonesia. Essentially, the study reveals that the greater the development of financial knowledge and utilization of financial products by SME managers/owners, the more sustainable their enterprises become. A sustainable business model goes beyond merely generating economic value for owners; it integrates social, environmental, and economic activities within its operations. By doing so, it creates value not only for customers but also for a broader range of stakeholders, thereby fostering social integration, environmental protection, and ultimately, firm sustainability. This finding is in line with the earlier results (Schaltegger, Hansen, and Lüdeke-Freund 2012; Bocken et al. 2013; Fontaine 2013; Oginni and Omojowo 2015; Alshehhi, Nobanee, and Khare 2018; Gungor and Dincel 2018).

Both hypotheses formulated for this study were validated, revealing that financial sustainability, environmental sustainability, and social responsibility significantly influence firm sustainability. Additionally, financial literacy and financial capabilities demonstrate a notable impact on firm sustainability. Hypothesis two (H2) also indicates a positive correlation between financial literacy, financial capability, and firm sustainability. The results indicate that firm sustainability is heightened when business owners/managers engage in proactive planning and budgeting, possess a deep understanding of the financial market, are equipped with investment knowledge, utilize investment products, and exhibit proficiency in financial literacy. This is because effective planning and budgeting enable entrepreneurs to anticipate periods of surplus and deficit, allowing them to mitigate associated risks. Moreover, a robust understanding of the financial market empowers them to confidently navigate it and leverage available financial products. Furthermore, their knowledge of investment products provides them with advantages in market and investment timing, enabling them to identify appropriate investment vehicles for wealth creation. The study acknowledges the importance of financial literacy and capabilities in overcoming cognitive limitations that can lead to behavioral biases in financial decision-making, thereby emphasizing their critical role in sound financial management (Agarwal, Chomsisengphet, and Lim 2017; Babajide et al. 2020a). The research findings indicate that understanding and utilizing insurance products, such as those covering burglary, fire, and accidents, contribute to enhancing firm sustainability by offering protection against unexpected events. Moreover, credit knowledge and utilization are essential for small businesses, as expansion prospects rely on entrepreneurs' understanding of the credit market, a challenge prevalent in many developing countries due to information imbalances (Babajide, Adegboye, and Omankhanlen 2015; Babajide et al. 2020a, 2020b). Financial practice knowledge also enhances firm sustainability while savings knowledge and savings products negatively impact it in the study period.

#### 5. CONCLUSION AND RECOMMENDATION

This study adds to the body of research on corporate sustainability, as well as financial knowledge and practice. The study found that environmental sustainability, social responsibility, and economic sustainability improve business sustainability. The study's findings show that small business owners and managers must be financially literate and have the requisite financial management abilities to ensure the firm's longevity. It is not enough for small company owners to develop and maintain businesses; they must do so in a sustainable manner that does not jeopardize future generations. The study demonstrates the importance for small company owners to conserve the environment, give back to society, and earn a profit in order to survive their firm. According to the study's findings, being financially educated and knowledgeable about financial markets and goods can assist small businesses in Indonesia become more sustainable. As a result, the report proposes that small businesses maintain their nearby environment by properly disposing of garbage, recycling waste, and avoiding printing paper. They should also consider planting trees and using renewable energy to power their businesses. likewise, small firms should be socially responsible by providing consumer protection, hiring community people, particularly the vulnerable, where possible, assuring fair pricing of corporate products, and giving back to the community wherever possible. Finally, small businesses should provide effective company oversight to improve profitability, use accessible financial products such as credit and insurance products, avoid utilizing savings products and instead invest their savings, and adopt strong financial management practices in the business.

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