





“Factors affecting batik SME performance and sustainability: The role of government support and business associations”

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ARTICLE INFO	Suprayitno, Christantius Dwiatmadja and Lieli Suharti (2025). Factors affecting batik SME performance and sustainability: The role of government support and business associations. <i>Problems and Perspectives in Management</i> , 23(1), 249-262. doi: 10.21511/ppm.23(1).2025.19
DOI	http://dx.doi.org/10.21511/ppm.23(1).2025.19
RELEASED ON	Monday, 17 February 2025
RECEIVED ON	Thursday, 24 October 2024
ACCEPTED ON	Tuesday, 21 January 2025
LICENSE	 This work is licensed under a Creative Commons Attribution 4.0 International License
JOURNAL	"Problems and Perspectives in Management"
ISSN PRINT	1727-7051
ISSN ONLINE	1810-5467
PUBLISHER	LLC “Consulting Publishing Company “Business Perspectives”
FOUNDER	LLC “Consulting Publishing Company “Business Perspectives”



NUMBER OF REFERENCES

69



NUMBER OF FIGURES

1



NUMBER OF TABLES

3

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BUSINESS PERSPECTIVES



LLC "CPC "Business Perspectives"
Hryhorii Skovoroda lane, 10,
Sumy, 40022, Ukraine
www.businessperspectives.org

Received on: 24th of October, 2024
Accepted on: 21st of January, 2025
Published on: 17th of February, 2025

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Conflict of interest statement:
Author(s) reported no conflict of interest

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FACTORS AFFECTING BATIK SME PERFORMANCE AND SUSTAINABILITY: THE ROLE OF GOVERNMENT SUPPORT AND BUSINESS ASSOCIATIONS

Abstract

Batik SMEs, especially in Solo Raya, Indonesia, face challenges in business sustainability. Considering that batik is one of Indonesia's cultural heritages, maintaining the sustainability of batik SMEs means contributing to the preservation of batik culture. Therefore, the study aimed to analyze the influence of entrepreneurial leadership, social capital, and digital literacy on the sustainability of batik SMEs mediated by business performance and moderated by government support and the role of business associations. The quantitative method is used with SEM-PLS analysis. The population included 273 owners and managers of batik SMEs in Solo Raya, Central Java, Indonesia; 155 were used as the research sample. Data were collected through questionnaires conducted online through Google Forms and offline face-to-face. This study found that entrepreneurial leadership and social capital positively and significantly affect performance. Entrepreneurial leadership and business performance have a positive and significant effect on sustainability. Performance mediates the impact of entrepreneurial leadership and social capital on sustainability. In contrast, government support weakens the impact of entrepreneurial leadership on sustainability in its moderating role. This study confirms the ability of batik SMEs in Solo Raya to sustain their business by referring to the resource-based view, survival-based, social capital, and sustainability theories.

Keywords sustainable, leadership, social capital, digital literacy, business associates

JEL Classification L26, M21, Q01

INTRODUCTION

Most business units in Indonesia are small and medium enterprises (SMEs), which contribute significantly to the economy and employment in Indonesia. According to the data from Kadin Indonesia (2024), there will be 66 million SMEs in Indonesia by 2023 contributing 61% of Indonesia's Gross Domestic Product (GDP) or equivalent to IDR 9,580 trillion. SMEs are easy to establish because they do not require large resources, but this also makes them prone to failure, such as managerial failure, limited capital, and failure to take advantage of opportunities to gain economic benefits (Franco et al., 2021). The failure rate of SMEs is relatively high. In the United States, about 20% of SMEs fail in the first year, and this rate continues to increase every year until after ten years, when only 30% can survive (Carter, 2021). Similarly, in Indonesia, >50% of SMEs can only maintain their business sustainability for three years (Fernan, 2019).

Batik SMEs also face the challenge of sustainability in Solo Raya that includes Surakarta, Klaten, Sukoharjo, Boyolali, Wonogiri, Karanganyar, and Sragen Regencies. Batik crafts have been embedded in this region's history, so most local communities have batik SMEs.

Batik is a hereditary wealth of the Indonesian nation produced from a combination of art and technology that has high value and has been recognized by UNESCO as a world cultural heritage. Batik also carries the perception of Indonesia's superior culture through the complexity and precision of the ornamental patterns painted on a piece of cloth (Rismantojo et al., 2024). Therefore, the sustainability of batik art must be maintained by ensuring the sustainability of batik SMEs. However, SMEs face various weaknesses and lack of resources that are closely related to the vulnerability to sustainability issues that eventually affect their competitiveness (Lopez-Torres, 2023).

Increased sustainability of SMEs contributes to the country's economic growth and the sustainability of batik culture in Indonesia. The economic contribution depends on several factors, such as resources and capabilities, strategy, stakeholders, human resources, and innovation (Kassab et al., 2022).

1. LITERATURE REVIEW

Leadership refers to leaders' characteristics, qualities, and behaviors in influencing the people they lead. A leader exerts such influence by providing guidance or role models (Benmira & Agboola, 2021). Leadership is one of the factors that determine the success of SMEs, which is confirmed by Owuori (2021). They propose that achieving good SME performance requires a leadership style with an innovative culture and organizational learning in every decision-making.

Most SMEs are family firms, which means the owner is the principal manager. SME business sustainability requires entrepreneurial spirit and practices from the owner as the principal manager (Newman et al., 2022). Entrepreneurial leadership is one of the indications of its influence on the sustainability of SMEs; leadership style has a significant effect on company achievements and success (Hossain et al., 2022).

Organizations led by entrepreneurial managers are more creative and more innovative. Creativity and innovation have a significant role in improving organizational performance (Bagheri & Harrison, 2020). In addition, employees led by entrepreneurial leaders are proven to be more proactive, more innovative, and have positive behaviors (Iqbal et al., 2022). In a dynamic and challenging business environment, leadership is the main factor that leads companies to sustainable performance (Piwowar-Sulej & Iqbal, 2023). This factor will determine the company's efforts in running its business to achieve the desired goals and become the key to realizing the company's sustainability. This relates to sustainability practices with

risks and opportunities, so organizations require clear and direct leadership to determine how the business will be run to improve operational processes (Settembre-Blundo et al., 2021).

Social capital is critical to success and growth in a competitive entrepreneurial world. It represents all prospective resources available to an individual through personal networks of social relationships (Nahapiet & Ghoshal, 1998). For entrepreneurs, social capital helps open access to other types of capital, such as intellectual, financial, and cultural capital, which are crucial in improving firm performance (Bourdieu, 1986). Social capital can also function as a complement or substitute, compensating for entrepreneurs' lack of or limited access to financial and intellectual capital through a network of good social relations (Adler & Kwon, 2002). In addition, social capital can provide financial and intellectual efficiency through cost reduction and knowledge sharing, resulting in improved firm performance (Becheikh & Bouaddi, 2024).

Social capital materializes through mutual trust, business networks, and solidarity. These all have a positive impact on SME management (Darmi et al., 2022). Social capital supports entrepreneurs in identifying opportunities, mobilizing resources, and fostering trust (Becheikh & Bouaddi, 2024). It acts as a driver in creating other resources that have essential value, are inimitable, and are inherent in the company's network of relationships (Lyu & Ji, 2020). Based on the resource-based view, these resources are the basis for companies to outperform competition and maintain company sustainability. Social capital plays a role in resilience in achieving the competitive advantage of the SME itself. Additionally, Muniady et al. (2015) found

that social capital positively and significantly affects SME performance. In addition, Darmi et al. (2022) discovered a significant positive influence between social capital and business sustainability.

SME sustainability also needs to adapt to changes in society, one of which is digital adaptation. Digital literacy is understanding and using information in various formats and sources when displayed through computers, primarily through the Internet. According to C. Audrin and B. Audrin (2022), digital literacy is the competencies and skills needed to navigate a dispersed and complex information environment. Tinmaz et al. (2022) categorize the intellectual processes related to digital literacy into finding and consuming, creating, and communicating digital content. In the present business environment, mastering digital technology is an ability that SMEs must have and utilize to maintain good business performance and become part of the adaptation process to maintain business sustainability (Priyono et al., 2020).

Enterprises need to adapt to the digital environment to maintain and improve competitiveness, especially given the rapid pace of digitalization in the current era. Adjusting to an all-digital environment means digital transformation, which requires solid digital literacy (Zahoor et al., 2023). Through good digital literacy, SMEs can use digital technology to transform their business and adapt to the current economic environment (Zahoor et al., 2023). Entrepreneurs with good digital literacy can manage and strategize quickly through uncertain and often volatile market conditions (Priyono et al., 2020).

Digital literacy supports SMEs in making decisions through more efficient information management. Correct information will ensure that every business decision can result in effective performance through efficient resource management (Ollerenshaw et al., 2021). In addition, adequate digital literacy will support SMEs in innovating and adapting to the digital situation and market conditions. Raharjo et al. (2024) and Wardana et al. (2023) showed that digital literacy has a positive and significant effect on SME performance and has an impact on business sustainability.

Business performance is a series of analytical processes that manage business performance to achieve

predetermined goals. It can be interpreted as an effort to realize the vision through mission achievement (Mio et al., 2022). Business performance is the ultimate measure of organizational achievement and is influenced by many possible market and organizational conditions (Kafetzopoulos, 2022). In the context of SMEs, improved performance is seen through increased revenue, job creation, productivity, and exports (Doh & Kim, 2014). According to Duygulu et al. (2016), SMEs that perform well can maintain their business continuity, continue to grow, increase profits, hold strong philosophies and values, and have a good reputation.

The main goal of all business entities, including SMEs, is to maintain business sustainability through the strategies set out from the beginning through the vision and mission. The company will strive to maintain sustainability by realizing good performance based on predetermined targets. This is consistent with Zighan and Ruel (2023), who state that the sustainability of SMEs can be achieved by continuously improving performance. Likewise, Menne et al. (2022) found that financial performance affects the sustainability of SMEs. Meanwhile, Gorondutse et al. (2021) have stressed the importance of measuring the performance of SMEs based on their ability to maintain their sustainability. Business sustainability and competitive level are essential indicators of SME performance, which means that SMEs with good performance can be seen from their ability to continue their business and have the ability to compete.

Performance is a benchmark for organizations in realizing their goals. It is influenced by many internal and external factors, as stated by Kafetzopoulos (2022). Leadership is one of the internal factors that affect business performance (Bagheri & Harrison, 2020). Social capital is another internal capital that is a strong determinant of business performance by providing financial efficiency and intellectual efficiency through cost reduction and knowledge sharing (Becheikh & Bouaddi, 2024). In today's all-digital environment, mastery of digital technology is an ability that must be owned and utilized by SMEs so that their business performance remains good (Becheikh & Bouaddi, 2024). Meanwhile, business performance measures a company's ability to achieve the targets to be reached (Mio et al., 2022).

Regarding SME development, the various barriers faced require serious attention to promote growth and innovation. The main barriers for SMEs include the institutional environment, policy support, mechanisms, and guidelines (Hossain et al., 2022). SMEs need support from external parties, including the government, at various stages in their business cycle, such as running operations and innovating (Shu et al., 2015). The government recognizes the limitations of SMEs, so it supports them by providing training and mentoring (Mgweba & Lungisa, 2024). Governments have long recognized that SMEs need an entrepreneurial spirit (Mhlongo & Daya, 2023), which is embedded in entrepreneurial leadership. With a strong entrepreneurial spirit, SMEs are expected to have an excellent entrepreneurial leadership attitude, given that this attitude is a strong determinant of SME performance (Nguyen et al., 2021).

The government provides support to SMEs through various empowerment programs. This support is also aimed at the SME community to strengthen social capital for SME actors (Maksum et al., 2020). Social capital supports entrepreneurs in identifying opportunities, mobilizing resources, and fostering trust (Hidalgo et al., 2024). Social capital is also a generator for creating other resources that have essential value, cannot be replicated, and are inherent in the firm's network of relationships (Lyu & Ji, 2020). Thus, social capital is an essential factor for efforts to improve business performance. Government support can pave the way for SMEs to form social capital, so government support will indirectly strengthen SME performance.

Government support is provided by offering various resources that have positive value for the performance of SMEs in various forms, one of which is by increasing digital literacy for SMEs through training. This support is based on the consideration that the community environment has turned digital, including the business environment. Therefore, SMEs must immediately carry out digital transformation, which requires good digital literacy (Priyono et al., 2020). Government support must be provided, considering that SMEs generally face constraints of lack of funding, digital capabilities, human resources, and technical barriers (Chen et al., 2021). With govern-

ment support, these obstacles are expected to be overcome, which has implications for improving performance.

SME business associations are communities of SMEs in a particular line of business and domiciled in a particular area such as a village, market, center, or district/city. As an institution, business associations become an external factor for SMEs. Siswanti (2020) revealed that external factors significantly affect the performance of SMEs. The role of business associations as a community of SMEs is also an internal factor that, according to Ferdinand (2016), has a significant effect on the performance of SMEs. This is supported by Hartini (2018), who states that the SME community can increase its members' motivation, togetherness, loyalty, and income. Meanwhile, the business association provides social capital that significantly improves SMEs' performance and competitiveness through a sense of togetherness and loyalty (Nikmah & Rahmawati, 2022).

Business associations are platforms for SMEs that consistently improve the performance of their members. Interactions between members provide opportunities to form crucial social capital as a resource to improve performance and maintain sustainability (Afif & Kristanti, 2022). Gorondutse et al. (2021) and Zighan and Ruel (2023) have confirmed the relationship between performance and business sustainability. Thus, sustainability can be maintained with improved performance. Performance is essential in maintaining business sustainability because by performing well, SMEs can obtain various resources required to maintain their business sustainability. It can be assumed that the role of business associations is to moderate the relationship between performance and sustainability of SMEs.

The conceptual model of this study was developed based on several theories, namely organizational sustainability theory, resource-based view theory, and survival-based theory. Organizational sustainability theory explains that organizations with sustainability can maintain their business continuity by achieving current success without sacrificing future needs (Colbert & Kurucz, 2007; Govindan, 2018). Thus, organizational sustainability refers to efforts to maintain the organization's

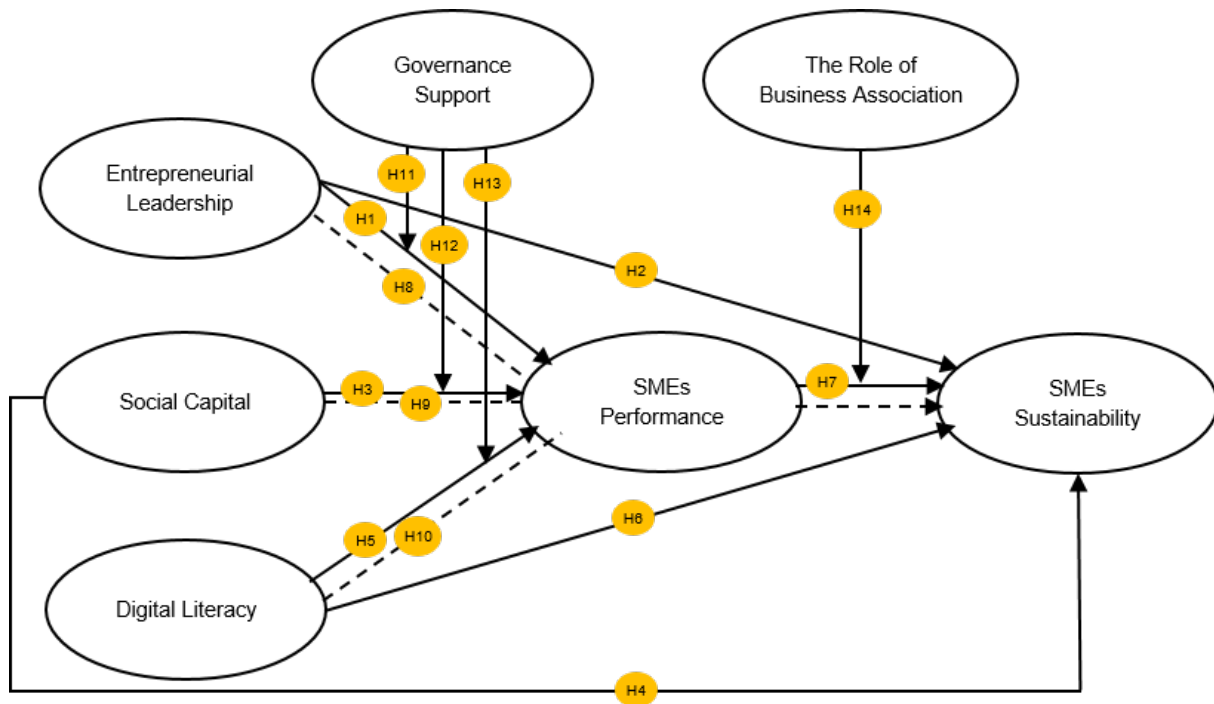


Figure 1. Conceptual model

current and future performance. Organizational sustainability is influenced by its performance, and various internal and external factors affect organizational performance. These factors include leadership, social capital, the ability of managers to digitize based on the current conditions of society, government support, and the role of business associations. Figure 1 shows the conceptual model.

The increasing competition in business means that understanding the factors that influence competitive advantage is critical for SMEs. The resource-based view explains that various types of resources are used to obtain a competitive advantage and maintain the sustainability of the business entity (Barney, 1991; Rodrigues et al., 2021). This study defines competitive advantage as good SME performance so SMEs can provide various resources needed to maintain sustainability. Entrepreneurial leadership, social capital, and digital literacy are resourcing whose quality is needed by SMEs to gain competitive advantage directly or through good performance. Meanwhile, government support and the role of business associations are two entities that can act as resource suppliers for SMEs.

The main objective of the survival-based theory is to improve digital literacy. This is done

by showing that surviving entities can adapt to the environment (Omalaja & Eruola, 2011). In a digitized environment, SMEs need to digitize as a form of adaptation (Bai et al., 2021). SMEs that can carry out digital transformation will survive, and conversely, SMEs that are unable to will be threatened by the sustainability of their business. Digital literacy is the ability or expertise SME owners or managers need to bring their business to digital transformation to leverage their business performance to maintain sustainability.

The performance of batik SMEs needs to be maintained and improved to ensure its sustainability. Therefore, this study is designed to analyze the influence of entrepreneurial leadership, social capital, and digital literacy on the sustainability of batik SMEs mediated by business performance and moderated by government support and the role of business associations. So, the hypotheses are formulated as follows:

- H1: Entrepreneurial leadership has a significant positive effect on SME performance.*
- H2: Entrepreneurial leadership has a significant positive effect on SME sustainability.*

- H3: *Social capital has a significant positive effect on SME performance.*
- H4: *Social capital has a significant positive effect on SME sustainability.*
- H5: *Digital literacy has a significant positive effect on SME performance.*
- H6: *Digital literacy has a significant positive effect on SME sustainability.*
- H7: *Performance has a significant positive effect on SME sustainability.*
- H8: *Performance mediates the effect of entrepreneurial leadership on SME sustainability.*
- H9: *Performance mediates the effect of social capital on SME sustainability.*
- H10: *Performance mediates the effect of digital literacy on SME sustainability.*
- H11: *Government support moderates the effect of entrepreneurial leadership on SME performance.*
- H12: *Government support moderates the effect of social capital on SME performance.*
- H13: *Government support moderates the effect of digital literacy on SME performance.*
- H14: *The role of the business association moderates the effect of performance on SME sustainability.*

2. METHODS

This paper is an explanatory quantitative study where the collected and analyzed data are used to answer research problems using numbers from measuring research variables. According to the method or rationale, the positivistic research approach is used. This approach views scientific research as a way to obtain truth, which is then used to understand the world well so that humans can control and predict it (Bougie & Sekaran, 2019). The population is all

business entities that are still active and categorized as SMEs, with the main product produced being batik cloth and its derivatives, which are domiciled in Solo Raya. The Solo Raya includes Surakarta City, Klaten, Wonogiri, Sukoharjo, and Sragen Regency. Referring to data from the Office of Cooperatives and SMEs, the number of batik SMEs in the region is 273. The sample was selected using a purposive sampling technique of the quota sampling type, which amounted to 155 according to the minimum sample size calculated using the inverse square root method (Hair et al., 2021; Kock & Hadaya, 2018).

The research sample comprised owners and managers of batik SMEs. Most of the respondents domiciled in Klaten Regency (38.71%), have been operating continuously for 10-15 years (50.32%), employ 1-10 employees (81.94%), market their products at the national level (57.42%), and have a turnover of 0-5 million per month (25.81%). Research data were obtained using questionnaires distributed directly to respondents. The questionnaire provided alternative answers with a Likert scale of 1-5 to measure each research variable. Furthermore, data analysis was carried out based on SEM-PLS using the SmartPLS application.

Measuring several dimensions is essential to understanding the various aspects that influence the success of SMEs. SME sustainability measurement consists of economic, environmental, and social dimensions, while SME performance measurement consists of financial, customer, internal business process, and learning and innovation dimensions (Mengistu & Panizzolo, 2023). Entrepreneurial leadership measurements consist of framing challenges, absorbing uncertainty and assurance, building commitment, defining gravity, identifying and exploiting opportunities, and being learning-oriented dimensions (Bagheri & Harrison, 2020). The social capital measurement consists of relational, structural, and cognitive dimensions (Jeong & Chung, 2023).

The measurement of digital literacy is also essential, as it consists of the ability to access, manage, and integrate information. Moreover, this measurement also includes analyzing and

evaluating information, building knowledge, creating media and information, and communicating (Oh et al., 2021). Measurement of government support refers to the dimensions of enabling, empowering, protecting, supporting, and fostering (Yi, 2021). Meanwhile, the role of business associations is measured in terms of social and non-social dimensions (Hartini, 2018; Nikmah & Rahmawati, 2022).

3. RESULTS

Table 1 shows that several indicators obtained outer loadings <0.7 and several constructs obtained average variance extracted (AVE) <0.5 , which means that the convergent validity of this research model could be better. In order to overcome this problem, several indicators were removed, starting from the indicator with the smallest outer loadings so that all constructs obtained $AVE > 0.5$. In total, 18 indicators were removed, and after that, the model has good convergent validity. The results of the construct reliability evaluation show that the model is reliable because all constructs have composite reliability (CR) >0.7 . Checking the collinearity problem shows that the model is free from these problems because all constructs have a Variance Inflation Factor (VIF) <5 . In addition, the results of the discriminant validity evaluation show that the model has good validity because all relationships between constructs have a heterotrait-monotrait ratio (HTMT) value <0.85 , as shown in Table 2.

Table 1. AVE, CR, and VIF values

Construct	AVE	CR	VIF
Entrepreneurial Leadership (EL)	0.501	0.875	2.374
Social Capital (SC)	0.519	0.882	2.323
Digital Literacy (DL)	0.562	0.956	2.566
SME Performance (SP)	0.570	0.922	1.484
SME Sustainability (SS)	0.504	0.835	1.587
Government Support (GS)	0.650	0.963	1.578
Business Associate's Role (BR)	0.660	0.921	4.443

Table 2. HTMT values

Construct	EL	SC	DL	SP	SS	GS
EL						
SC	0.819					
DL	0.657	0.544				
SP	0.704	0.692	0.548			
SS	0.736	0.686	0.428	0.766		
GS	0.370	0.338	0.603	0.722	0.348	
BR	0.566	0.585	0.463	0.628	0.575	0.667

Note: EL = Entrepreneurial Leadership; SC = Social Capital; DL = Digital Literacy; SP = SME Performance; SS = SME Sustainability; GS = Government Support; BR = Business Associate's Role.

The model has been declared to have good validity and reliability and does not experience collinearity problems, so it is feasible to use it to determine the relationship between constructs and the hypotheses set. Hypothesis testing is based on the direct and indirect effects of bootstrapping operation output in SmartPLS, as seen in Table 3. The two-tailed test is performed with an error rate of 5%, so the critical value is 1.96. The relationship is significant if the t -values are > 1.96 or p -values <0.05 . In contrast, the relationship's strength or

Table 3. Hypotheses testing

Hypotheses	Path Coefficient	t-values	p-values	Accept/Reject
H1 EL \rightarrow SP	0.283	3.768	0.000	Accept
H2 EL \rightarrow SS	0.266	2.081	0.038	Accept
H3 SC \rightarrow SP	0.302	3.880	0.000	Accept
H4 SC \rightarrow SS	0.126	1.251	0.211	Reject
H5 DL \rightarrow SP	-0.108	1.373	0.186	Reject
H6 DL \rightarrow SS	-0.108	1.061	0.289	Reject
H7 SP \rightarrow SS	0.555	7.274	0.000	Accept
H8 EL \rightarrow SP \rightarrow SS	0.157	2.947	0.003	Accept
H9 SC \rightarrow SP \rightarrow SS	0.167	3.520	0.000	Accept
H10 DL \rightarrow SP \rightarrow SS	-0.060	1.279	0.202	Reject
H11 GS moderates EL \rightarrow SP	-0.222	2.455	0.014	Accept
H12 GS moderates SC \rightarrow SP	0.132	1.430	0.153	Reject
H13 GS moderates DL \rightarrow SP	0.005	0.085	0.933	Reject
H14 BR moderates SP \rightarrow SS	-0.066	0.905	0.366	Reject

Note: EL = Entrepreneurial Leadership; SC = Social Capital; DL = Digital Literacy; SP = SME Performance; SS = SME Sustainability; GS = Government Support; BR = Business Associate's Role.

weakness and positive or negative value will be indicated by the path coefficient (Hair et al., 2022).

Table 3 shows that entrepreneurial leadership (H1) and social capital (H3) have a positive and significant effect on SME performance but not digital literacy (H5), which has a negative and insignificant effect on SME performance. Entrepreneurial leadership (H2) and SME performance (H7) positively and significantly affect SME sustainability. However, social capital (H4) shows a positive but insignificant effect on SME sustainability, in contrast to digital literacy (H6), which shows a negative and insignificant effect on SME sustainability. SME performance partially mediates the effect of entrepreneurial leadership (H8) and social capital (H9) on SME sustainability. However, sustainability performance (H10) does not mediate the effect of digital literacy on SME sustainability.

Government support purely moderates the effect of entrepreneurial leadership (H11) on SME performance. Referring to the negative path coefficient, by comparing the path coefficient of the direct effect of entrepreneurial leadership on positive SME performance, the nature of moderation is weakening. In contrast, government support does not moderate the effect of social capital (H12) and digital literacy (H13) on SME performance. In addition, the role of business partners does not moderate the effect of SME performance (H14) on SME sustainability.

4. DISCUSSION

This paper proves that the stronger the level of entrepreneurial leadership, the better the performance of batik SMEs and the more sustainable the SMEs. Many SMEs need more leadership roles due to the importance of leadership factors regardless of style for SME performance and sustainability (Piwowar-Sulej & Iqbal, 2023). Individual leaders who possess and exercise entrepreneurial behavior are an essential resource for SMEs. This is consistent with the resource-based view theory, which reveals that excellence can be achieved by business entities that ensure the sustainability of their business through the management of internal resources that are valuable, rare, inimitable, and managed to gain value (Barney, 1991), including leadership

behavior. Leadership behavior is an SME resource that can be managed and improved, even adjusted to the needs of the SME itself. In addition, when entrepreneurial leadership behavior is managed and executed correctly, leadership behavior can improve SME performance.

This study also proves that the stronger the social capital, the better the performance of batik SMEs. This result confirms the importance of social capital for the performance and development of SMEs. It strengthens the perspective of social capital theory, which views social capital as a resource and corporate investment in social relationships with the expectation that it can provide various benefits to the company (Lin, 2001). SMEs must effectively use their limited resources and social networks to deal with uncertainty in an ever-increasing business environment (Vu et al., 2023). In addition, social capital promotes the growth of SMEs. Thus, to improve SMEs' performance, social capital needs to be strengthened (Purwati et al., 2021).

The performance of batik SMEs in Solo Raya does not depend on digital technology in running their business, which can be interpreted as the utilization of digital technology by batik SMEs in Solo Raya is still minimal due to the inadequate digital literacy of the managers. This is in line with a survey conducted by the Ministry of Communication and Information (2020), which found that Indonesia's digital literacy index has a score of "medium" and has not yet reached "good." Similarly, Raya et al. (2021) found that one of the challenges and innovations that need to be carried out by batik SMEs in Indonesia is the use of digital media to support marketing, given the general condition of SMEs that are hampered by a lack of knowledge and expertise related to digital literacy. In the current era, consumers are accustomed to making buying and selling transactions through digital media, so efforts to improve digital literacy among batik SMEs in Solo Raya need to be a concern for stakeholders, especially the government.

This study reveals that performance can mediate the effect of entrepreneurial leadership and social capital on the sustainability of SMEs rather than the effect of digital literacy. These results can be interpreted that the better the performance of SMEs, the higher the influence of entrepreneurial

leadership and social capital on the sustainability of SMEs, but not in the case of digital literacy. Integrating with the results obtained previously, the better the entrepreneurial leadership and social capital, the better the performance of SMEs, and with better performance, the influence of entrepreneurial leadership and social capital on the sustainability of SMEs will also be more substantial. However, this does not apply to digital literacy, as the level of digital literacy of the owners or managers of these SMEs still needs improvement. Even if their performance improves, digital literacy will still not significantly impact the sustainability of batik SMEs in Solo Raya. This implicitly reveals that batik SMEs' use of digital technology in Solo Raya still needs to be higher.

Government support is proven to significantly moderate the effect of entrepreneurial leadership on the performance of Batik SMEs in Solo Raya. However, referring to the path coefficient, the moderation is negative. Thus, government support weakens the influence of entrepreneurial leadership on the performance of batik SMEs in Solo Raya. The result can be interpreted that the higher the level of support provided by the government, the weaker the influence of entrepreneurial leadership on performance. The findings indicate that the form of support the government has provided to batik SMEs in Solo Raya so far has yet to address the aspects of leadership and entrepreneurship. Government support has not been able to eliminate the obstacles to the growth of the entrepreneurial spirit and the application of entrepreneurial leadership among the owners or managers of batik SMEs in Solo Raya, but rather strengthen these obstacles. Policies issued by the government often hinder the development of SMEs (Nguyen et al., 2021).

The support that the government has provided to batik SMEs in Solo Raya has revealed that it does not significantly cause the social capital and digital literacy of the owners or managers of these SMEs to be a factor that determines the performance of the SMEs they manage. This indicates that government support for batik SMEs in Solo Raya has yet to be able to help them strengthen the quality and quantity of their social capital and digital literacy. Given the important role of SMEs in the country's economy and the changes in hu-

man life that have become all-digital, government support should be directed to strengthen SMEs' social capital and digital literacy. Such support can be provided by taking various policies to help batik SMEs build strong networks and relationships in the business community through various activities, such as networking events, business associations, and mentoring programs, and providing various training and assistance in the use of digital technology and encouraging SMEs to do digital marketing (Jadhav et al., 2023). Digital SME business becomes easier when the actors have sufficient digital literacy (Raharjo et al., 2024), and government support in the form of digital technology training can improve SME performance (Marjukah, 2022).

The role of the business association proved not to moderate the effect of performance on the sustainability of batik SMEs in Solo Raya, indicating the weak role of the business association in improving the performance of its members so that their business can be maintained. The activities carried out by the business association of batik SMEs in Solo Raya have not optimally supported the improvement of the business performance of its members. However, they are still limited to ordinary gathering events. The various resources built and obtained through the role of the batik SME business association in Solo Raya have not yet had a significant effect on the businesses run by its members, especially in strengthening their business performance to maintain their sustainability. The SME business association should play a role in encouraging the business performance of its members so that the sustainability of its members' business will be maintained. The business association has the potential to be a means of obtaining crucial social capital as a resource to improve performance and maintain business sustainability. However, this potential has yet to be optimally explored, indicating the need for an effort to explore this potential. Ideally, the business association is a factor that significantly affects the performance of SMEs (Ferdinand, 2016) by increasing the motivation, togetherness, loyalty, and income of its members (Hartini, 2018).

The limitations of this study are the research data taken at one time or using a cross-sectional approach, so the study's results do not describe the development

of the phenomenon studied over time, which may have different results. It also does not consider bias factors, such as demographic aspects (age, education level, gender, etc.). This factor can affect the ability of the independent variable to predict the dependent

variable, as well as the ability of the mediator variable to mediate and the moderator variable to moderate the effect of the independent on the dependent variable. These limitations should be noted and can be refined by future research.

CONCLUSION

This study analyzes the influence of entrepreneurial leadership, social capital, and digital literacy on the sustainability of batik SMEs mediated by business performance and moderated by government support and the role of business associations. The study revealed entrepreneurial leadership and social capital as strong positive predictors of batik SMEs' performance, while digital literacy did not show the same effect. Entrepreneurial leadership and performance are strong positive predictors of SME sustainability. Performance can mediate the effect of entrepreneurial leadership and social capital on SME sustainability, unlike digital literacy, which does not affect SME sustainability. Government support moderates' entrepreneurial leadership's effect on batik SMEs' performance. However, social capital and digital literacy do not affect the performance of batik SMEs. The role of business associations does not moderate the effect of performance on the sustainability of batik SMEs.

The results of this study support the resource-based view and survival-based theory and provide managerial recommendations for batik SMEs in Solo Raya. SMEs need to improve the quality of entrepreneurial leadership and social capital because both positively and significantly influence SME performance. In addition, the digital literacy of SME managers also needs to be improved even though it has not yet shown a significant effect. The role of business associations also needs to be considered because good association management can improve the performance of its members. The government needs to optimize its support for batik SMEs, especially in social capital and digital literacy, through management assistance, technology, and digital marketing training.

AUTHOR CONTRIBUTIONS

Conceptualization: Suprayitno.

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Investigation: Suprayitno, Christantius Dwiatmadja, Lieli Suharti.

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ACKNOWLEDGMENT

The authors would like to acknowledge Universitas Kristen Satya Wacana [Satya Wacana Christian University] for providing the opportunity to conduct this analysis. Batik business associates are acknowledged for their willingness to be respondents and facilitate this investigation. Additionally, the support of the SME department is recognized in granting permission and assisting in facilitating this analysis.

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