

Sustainability of SMEs in Madiun City: The Role of Business Networks and Absorptive Capacity

Ardianus Laurens Paulus^{1*}, Vinsensius Widdy Tri Prasetyo²

¹Fakultas Bisnis Universitas Katolik Widya Mandala Surabaya,
Jl. Dinoyo No.42-44, Surabaya, Indonesia

²Fakultas Teknik, Universitas Katolik Widya Mandala Surabaya,
Jl. Dinoyo No.42-44, Surabaya, Indonesia

*ardianus.laurens.p@ukwms.ac.id

Abstract

The sustainability of SMEs is greatly influenced by the role played by business networks and absorptive capacity in absorbing and exploiting new knowledge and market opportunities. This article discusses the influence of business networks on business sustainability, as well as the role of absorptive capacity in connecting the two. This research focuses on SMEs in Madiun City with 60 respondents surveyed. Smart PLS 3.0 is used as an analysis tool. The results show that business networks have a positive and significant effect on absorptive capacity and business sustainability. However, absorptive capacity does not have an impact on business sustainability. In addition, absorptive capacity does not act as a mediator between business networks and business sustainability, indicating that business networks have a direct influence on business sustainability. Thus, this article not only provides valuable insights for academics but also for business practitioners and policy makers who are interested in improving the micro-enterprise ecosystem at the local level in the context of local economic development, especially in Madiun City, East Java.

Keywords: Absorptive Capacity, Business Networks, Business Sustainability

INTRODUCTION

Community survival is a fundamental thing that needs to be considered and is determined by economic growth in the area where the community lives. Apart from that, community economic growth is demonstrated by the development of the Small and Medium Enterprises (UKM) sector through the potential of the community. Developing the potential of SMEs can be carried out through the concept of creative local economic development through a dynamic entrepreneurial process, as well as community and business welfare in order to improve the quality of life for all those in the SME community (Halim, 2020). The creative industry has enormous potential if it can be developed properly. This potential can be assessed from a trade balance surplus, increased added value, employment, and can become a source of new economic growth in the region (Ichsana and Verenab, 2020). The journey and development of SMEs to grow the economy

depends on the enthusiasm, attitudes, behavior and abilities of business actors (Decree of the Minister of Cooperatives and Small Entrepreneur Development, 1995) and these factors are manifested through how SMEs establish business networks in an effort to sustain SMEs.

Entrepreneurial sustainability arises from consumer concern for introducing products, processes, and services for profit, where profit includes economic and non-economic benefits for individuals, the economy, and society (Jayaratne et al., 2019). Business sustainability is directly and significantly influenced by the role of business actors' perceptions and the use of ICT facilities (Yanti et al, 2018). Another factor that is considered to influence the development of SMEs is business networks (Lestari, 2015).

A business network can be interpreted as a form of organization in the economic sector that is used to organize coordination and create cooperation between elements in the organization

(Aboelmaged & Hashem, 2023). Expanding business networks, product innovation and business competition on the development of SMEs and the better the business network that is built, the better the business development (Herman and Nohong, 2022). Business social networks play an important role in business performance. Business actors need to build and use business networks to increase the size of the company by maximizing the benefits of the network they have. Furthermore, business centers and other supporters of entrepreneurship should consider business creation and development (Doyle & Young, 2018). An effective business network can facilitate the formation of an innovation ecology to continue to exist (Mayanja et al, 2020). An important construct that influences strategic flexibility and various forms of innovation is absorptive capacity.

Absorptive capacity refers to an organization's ability to identify, assimilate, and exploit valuable external information, which is crucial for enhancing its innovative capabilities (Cohen & Levinthal, 1990). It serves as a fundamental prerequisite for the renewal of a firm's knowledge base (Zahra & George, 2002). This renewal process, in turn, fosters elevated levels of innovation and augments the firm's flexibility in reconfiguring its resource base. Both innovation and flexibility are pivotal drivers of competitive advantage (Zahra & George, 2002). Absorptive capacity is the company's ability to exploit knowledge externally through three processes of exploratory learning, transformative learning and exploitative learning (Miroshnychenko et al. 2021).

Thus, it seems that business sustainability will be achieved if SMEs have a strong business network. The better the network that SMEs have, the stronger the chances of business continuity in the future. However, the sustainability of this business is determined by the absorptive capacity of SMEs in utilizing the ability to recognize, assimilate, apply values and information received from the business network owned by SMEs to ensure the sustainability of SMEs.

The process of knowledge absorption varies depending on the SME context, which is influenced by various factors as well as interactions between SMEs and actors in the network, with the aim of achieving sustainability (Benhayoun et al., 2020). Therefore, this article will further examine the influence of business networks on the sustainability of SMEs and examine the role of SMEs' absorptive capacity as a mediator.

LITERATURE REVIEW

Business Network and Absorptive Capacity

A business network is a form of organizational activity that is used to organize coordination and realize cooperation between elements in the organization. Utilization of the

results of business network activities is determined by the company's absorptive capacity. Therefore, companies need to have the absorptive capacity to absorb the information needed in an effort to increase innovation and performance that can maintain the company's survival. Absorptive capacity is a company's ability to recognize, assimilate, and apply valuable, new, and external information, which is critical to its innovation capabilities.

The ability to evaluate and utilize outside knowledge is largely a function of the level of prior related knowledge. Prior knowledge includes basic skills including knowledge of the latest scientific or technological developments in a particular field. Absorptive capacity is used as a dynamic capability related to the creation and utilization of knowledge that increases a company's ability to gain and maintain competitive advantage. Innovation and flexibility are both drivers of competitive advantage (Zahra & George, 2002). The knowledge and skills possessed depend on the business network. Companies that are lagging behind in the innovation process can compensate by actively networking together with existing resource capabilities (Sulistiyawati, 2023). The government's role is very necessary in encouraging the success of MSMEs in gaining access to expand their marketing networks. Apart from having ease and speed in obtaining market information, MSMEs also need to have the ability and speed in communicating their business to consumers widely both at home and abroad (Darfaz, 2023). Benhyaoun et al. (2021) found that the quality of partnerships in business networks can influence the absorptive capacity of manufacturing SMEs in managing knowledge during collaboration, as well as help avoid problems associated with such partnerships.

Therefore, based on the description above, a hypothesis can be formulated:

H₁: Business networks have a significant and positive effect on absorptive capacity

Business Networks and Business Sustainability

A business network is defined as a form of organization in the economic sector that is used to organize coordination and realize cooperation between elements in the organization. Business networks for SMEs are needed to guarantee the availability of raw materials, production processes, and distribution and marketing of business products. Business networking is the ability of network connections to connect actors with various different businesses, such as business partners, friends, agents, mentors, to get the necessary resources, such as information, money, moral support from network actors (Susilowati & Taufan, 2013). Effective entrepreneurial networks can be achieved, especially among SMEs where owners/managers facilitate the

formation of an innovation ecology to exist (Mayanja et al, 2020).

Business networks have a positive and significant influence on the development of MSMEs (Rahayu and Hidayah, 2023). The understanding and perspective of each stakeholder is part of the role mapping between stakeholders that needs to be carried out to create a business network for achieving sustainability in SME business (Sarbara et al, 2023). The interest of investors is superior capital owned by a business organization that wants to continue working and moving to expand and expand its business network, so that the business continues and is under control (Astawa et al, 2023). Companies that actively participate in business networks have a higher probability of achieving better economic performance (Rijal et al., 2023). Business networks are an important factor in business sustainability. Business networks have an important role in organizational results and performance (Anwar & Shah, 2018).

In addition, research in the network-based tourism industry shows that the quality of external relationships and the overall size of the network affect access to and the ability to absorb valuable knowledge, which ultimately has a positive impact on the organization's ability to maintain business sustainability (Binder, 2023). Therefore, a hypothesis can be formulated:

H₂: Business networks have a significant and positive effect on business sustainability

Absorptive Capacity and Business Sustainability

Absorptive capacity is the ability that a company must have to maintain the company's sustainability through the absorption of external information and knowledge. The ability to exploit external knowledge is an important component of innovative capability. This prior knowledge includes basic skills or even a shared language but can also include knowledge of the latest scientific or technological developments in a particular field. Related knowledge provides the ability to recognize the value of new information, assimilate it, and apply it to commercial goals. These capabilities collectively form what we call a firm's "absorptive capacity" (Cohen & Levinthal, 1990). A company's absorptive capacity influences innovation and performance (Ali, Seny Kan, & Sarstedt, 2016). Absorptive capacity is used as a dynamic capability related to the creation and utilization of knowledge that increases a company's ability to gain and maintain competitive advantage. Innovation and flexibility are both drivers of competitive advantage (Zahra & George, 2002). Innovation capabilities, company performance and competitive advantage are the basis for companies to carry out business sustainability.

Absorptive capacity is a strong predictor of business sustainability, linking absorptive capacity to sustainable capabilities in small and medium-sized enterprise (SME) owners and managers in the context of developing country economies (Aboelmaged & Hashem, 2023). In addition, absorptive capacity plays an important role in business and environmental sustainability in batik micro, small and medium enterprises (MSMEs) in Malaysia. Increasing this absorptive capacity is needed so that batik MSMEs can remain competitive in the market and realize sustainable businesses (Nawi et al., 2020). Therefore, a hypothesis can be formulated:

H₃: Absorptive capacity has a significant and positive effect on business sustainability

The Mediating Role of Absorptive Capacity

There is still little research regarding absorptive capacity in mediating the influence of business networks on business sustainability. Several research results show that absorptive capacity is a mediating variable (Liao et al., 2007). Through absorptive capacity, there will be great potential for the stock of knowledge possessed by individuals to work together to form new understanding and innovation for business sustainability. Andrawina et al. (2008) and Nugraheni et al. (2012) who researched the influence of formal mechanisms consisting of the potential and implementation of absorptive capacity as a mediator, giving results that the potential and implementation of absorptive capacity can significantly influence an organization's ability to innovate to continue the business. The company's absorptive capacity results in better performance in terms of new product development, market performance and profitability (Tzokas et al, 2015). This study contributes to the understanding of the role of absorptive capacity as a mechanism for translating external knowledge into tangible benefits in SMEs.

Research on small firms in China shows that social capital has a positive relationship with new product development. This relationship is fully mediated by absorptive capacity and marketing capability, providing empirical support for the sustainable development of small firms (Xin et al., 2020). In addition, absorptive capacity has also been shown to act as a mediator in the influence of networks on a company's ability to achieve sustainable competitive advantage (Peng & Lin, 2019). Therefore, based on the description above, a hypothesis is formulated:

H₄: Absorptive capacity mediates the influence of business networks on business sustainability

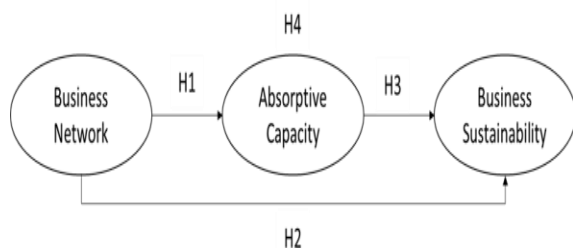


Figure 1. Research Framework

METHOD

The sample for this study was selected using Partial Least Squares (PLS) based on variance, thus necessitating a relatively small sample size (Wong, 2010). The sampling employed a non-probability method, specifically purposive sampling, as outlined by Cooper and Schindler (2014).

The respondents of this research are SMEs in the Madiun City area with the unit of analysis being the owner. The basic criteria for SMEs studied use criteria from the Indonesian Ministry of Cooperatives and SMEs (<https://kemenkopukm.go.id>, 2021). Respondents for this research were chosen because the owner or leader is an individual who knows most about the business activities being carried out.

The type of data used in this research is primary data in the form of self-report using a questionnaire. Data analysis was carried out using a structural equation measurement model (SEM) which does not require multivariate normal assumptions through outer and inner model analysis (Ghozali, 2008).

This research also tests the role of mediation using McKinnon and Fairchild's (2009) criteria, namely testing direct and indirect effects. Consisting of predictor variables (Business Network), criterion (Business Sustainability) and mediator (Absorptive Capacity). The initial step involves examining the direct effect of the predictor variable on the criterion variable. Subsequently, the second and third steps involve assessing whether the predictor influences the mediator and whether the mediator influences the criterion. The final step evaluates the impact of the predictor on the criterion while accounting for the mediator's influence. Mediation effects can be classified into three categories: (1) full mediation, (2) partial mediation, and (3) no mediation. Testing a hypothesis can be seen from the t-statistic value and probability value. To test the hypothesis using statistical values, for alpha 5% the t-statistic value used is 1.96 so that the criteria for accepting/rejecting the hypothesis is that H_a is accepted and H_0 is rejected when the t-statistic is > 1.96 . To reject/accept a hypothesis using probability, H_a is accepted if the p value is < 0.05 (Ghozali, 2008).

Table 1. Constructs and Measurement Items

Measurement Items	Reference
X1 Obtain the required resources from business partners	Business Network
X2 Obtain the required resources from friends	(Herman dan Nohong, 2022).
X3 Obtain the required resources from business mentors	
X4 Obtain the required resources from business associations	
M1 Have regular meetings	Absorptive Capacity
M2 Quickly acquire new knowledge	Capacity
M3 Examining consumer desires	(Zahra dan George, 2002)
M4 Always learn from previous experiences	
M5 Evaluate existing processes	
M6 Look for new ways to combine knowledge	
Y1 Business income has increased since the last 1 year	Business Sustainability
Y2 Over the last 1 year the business has experienced an increase in the number of consumers	(Jayaratne et al., 2019)
Y3 Guarantee that products are quality	
Y4 Business products are able to compete with other products	
Y5 Business can adapt to environmental conditions	
Y6 Under any conditions, it will keep the business running	
Y7 Always try to develop available resources	
Y8 Always try to fulfill consumer needs	
Y9 Preparing for the next regeneration to run the business	

RESULTS AND DISCUSSION

The characteristics of the respondents of this study are SMEs in the Madiun City area with the unit of analysis being the owner consisting of several criteria, namely gender, length of time running the business, type of SME and type of business field.

Table 2. Gender of SME Actors

Description	Total	Percentage (%)
Gender Male	50	80
Gender Female	10	20
Total	60	100.0

Based on gender, SMEs in this study were dominated by 50 men (80%) and 10 women (20%).

Table 3. Length of Running the Business (years)

Description	Total	Percentage (%)
SME Age < 3	15	27.7
SME Age > 3	45	72.3
Total	60	100.0

Data obtained from the respondents studied showed that there were 15 SMEs or 27.7% under < 3 years and 45 SMEs or 72.3% running businesses over > 3 years.

Table 4. Leadership Tenure

Description	Total	Percentage (%)
< 1 Year	25	47.1
Term of Leadership		
1 - 3 Year	15	18.8
> 3 Year	20	34.1
Total	60	100.0

However, many business leaders are still new and have been running for less than one (1) year as many as 25 respondents (47.1%). Meanwhile, 15 people have led businesses for 1 to 3 years (18.8%) and 20 people have run businesses as leaders for more than 3 years (34.1%).

Table 5. Number of Employees

Description	Total	Percentage (%)
2 – 4 People	18	27.69
Number of Workers		
5 – 19 People	20	43.07
20 – 99 People	12	18.46
99 People	7	10.77
Total	60	100.0

The number of workers in table 5 owned by SMEs on average is 5 - 19 people, dominating with 20 people (43.07%), then 2 - 4 people with a total of 18 people (27.69), followed by 22 - 99 people. as many as 12 people (18.46%), and above > 99 people, namely 7 as many as 7 people (10.77%).

Table 6. Types of SMEs

Description	Total	Percentage (%)
Furniture	12	20.5
Culinary	8	9.4
Type of business		
Fashion	10	11.8
Craft	16	34.1
Others	14	23.5
Total	60	100.0

In this research, SME business types were divided into several based on input from respondents. The types of business that many SMEs are involved in in this research are crafts as many as 16 respondents (23.5%), furniture as many as 12 respondents (20.5%), fashion as many as 10 respondents (11.8%) and culinary as many as 8 respondents (9.4%) and others. (services, producers, leather) as many as 14 respondents (23.7%).

Data analysis was carried out using a structural equation measurement model with the Smart Part Least Square (PLS) version 3.0 approach. Outer model analysis is carried out to ensure that the measurements used are suitable for measurement (valid and reliable). The tests carried out on the outer model consist of convergent validity, discriminant validity, composite reliability and Cronbach alpha tests. The outer model test results in Figure 2 show items that have factor loading values above 0.5 and can be used for further analysis. However, several measurement items listed in table 1 were excluded (X3 & M1, M4, M5, & Y1, Y2, Y3, Y5, Y9) from the outer measurement model

due to the loading factor value being less than 0.5 as suggested by (Hair et al., 2019).

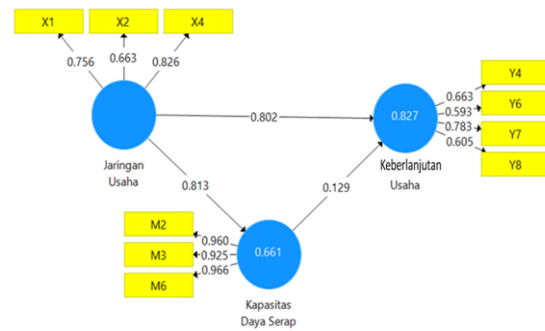


Figure 2. Structural Model of Outer Model Analysis

Given the absence of convergent validity issues, the subsequent analysis should focus on evaluating discriminant validity. Discriminant validity can be assessed by examining the cross-loading values, as demonstrated in Table 7:

Table 7. Cross Loadings

Construct	Business Network (X)	Absorptive Capacity (M)	Business Sustainability (Y)
M 2		0.960	
M 3		0.925	
M 6		0.966	
X 1	0.756		
X 2	0.663		
X 4	0.826		
Y 4			0.663
Y 6			0.593
Y 7			0.783
Y 8			0.605

Table 7 indicates that the loading values of each item on their respective constructs exceed their corresponding cross-loading values, all of which are above 0.5. Consequently, the cross-loading analysis demonstrates that there are no issues with discriminant validity, as the loading values surpass the 0.5 threshold.

In addition, to ensure that there are no problems related to measurement, the final step in evaluating the outer model is to test the unidimensionality of the model. The unidimensionality test was carried out using indicators, composite reliability and Cronbach's alpha. For these two indicators, the cut-off value is 0.5 so that all statement items in these variables can be relied on.

Table 8. Composite Reliability & Cronbachs Alpha

Construct	Composite Reliability	Cronbachs Alpha	Remarks
Business Network	0.795	0.662	Reliable
Absorptive Capacity	0.965	0.945	Reliable
Business Sustainability	0.758	0.606	Reliable

Table 8 indicates that all constructs exhibit composite reliability and Cronbach's alpha values exceeding 0.6. Consequently, the model demonstrates satisfactory reliability and unidimensionality, indicating the absence of measurement issues.

Tabel 9. Path coefficient

	T Statistics	P Value	Remarks
Business Network → Absorptive Capacity	23.101	0.000 ***	Accepted
Business Network → Business Sustainability	6.633	0.000 ***	Accepted
Absorptive Capacity → Business Sustainability	0.919	0.359	Rejected
R Square: Absorptive Capacity = 0.661 (66.1%) : Business Sustainability = 0.827 (82.7%)			
Sig. 0.1*** 0.5** 0.10*			

From the estimation results it can be seen that the influence of SME business networks on absorptive capacity has a path coefficient of 23,101 where the influence is positive and significant (p value = 0.000 < 0.05 or sig. 5%). Then the business network variable also influences business sustainability positively and significantly with a path regression coefficient of 6.633 (significant: p value = 0.000 < 0.05 or 5%). Meanwhile, absorptive capacity has no effect on business sustainability with a path regression coefficient of 0.919 (significant: p value = 0.359 > 0.05 or 5%).

From the results of hypothesis testing, H1 and H2 are supported, while H3 is not supported in this research. From the test it appears that when the influence of the mediator variable (absorptive capacity) is included in the model it appears that it does not have a significant influence on business sustainability (values in table 9). Thus, the absorptive capacity variable does not mediate the influence of business networks on business sustainability, in other words, business networks have a direct influence on business sustainability (H4 is not supported).

Apart from that, from the analysis results it can be seen that the R Square (R²) value is 0.661 for absorption capacity. This means that 66.1% of the absorptive capacity of the SMEs studied is influenced by the business network variable. Moreover, 33.9% of the variance in the absorptive capacity variable is attributable to factors not encompassed within the current research model. Then, from the analysis results, the R Square (R²) value is 0.827 for the sustainability of SME businesses. This means that 82.7% of business sustainability is influenced by business network variables and absorptive capacity. Moreover, 17.3% of the variance is attributable to factors not encompassed by the variables within the research model. The obtained R² value exceeds 0.5,

signifying that the model demonstrates a satisfactory goodness of fit.

Conclusion

Based on the results of this research, there are findings that the influence of business networks on business continuity is very significant, providing benefits that have a positive impact on operations and overall business development. Business networks have a significant impact on the sustainability of SME businesses through wider market access, access to resources and expertise, innovation collaboration, risk diversification, and exchange of learning and knowledge (Pratama et al., 2021). By utilizing business networks effectively, SMEs can strengthen the sustainability of their operations and increase long-term growth opportunities. Business networks enable wider access to resources, such as capital, raw materials and market information that are important for business development. This information helps MSMEs (Micro, Small and Medium Enterprises) to better understand market needs and industry trends, which is very important for maintaining competitiveness (Hendriyanto, 2015). Through business networks, MSMEs can collaborate with other companies, both similar and different. This collaboration can increase operational efficiency and enable synergies that strengthen the business' competitive position in the market (Herman & Nohong, 2022). Business networks often facilitate the exchange of ideas and product innovation. Thus, innovation is a key factor for maintaining business continuity amidst intense competition, because it can produce new products or services that better meet consumer needs (Rahayu & Hidayah, 2023). In addition, business networks provide moral support and motivation from fellow entrepreneurs. This is important to maintain enthusiasm and commitment in running a business, especially when facing challenges and difficulties (Pasaribu, 2021).

Besides that, through business networks, SMEs can increase their absorptive capacity, which refers to the company's ability to absorb, manage and exploit existing business opportunities. SMEs that are active in business networks can increase their absorptive capacity (Prakasa et al., 2022). By utilizing the resources, knowledge, partnerships, and opportunities provided by business networks, SMEs can become more responsive to market changes, more adaptive to business opportunities, and better able to grow and develop. Business networks facilitate the exchange of knowledge and technology between members, which helps SMEs increase their production capacity and absorption capacity for new workers (Kusumawardhany, 2018). Through collaboration with other businesses in the network, SMEs can share resources and create synergies that increase operational efficiency and production capacity. This allows SMEs to employ more labor

and absorb more resources (Irawan, 2020). Business networks often provide access to training and capacity building programs. Training can help SMEs to improve management and technical skills, which contributes to increasing their absorptive capacity [minardi]. In addition, business networks help SMEs expand their market share, which directly increases demand for products and services. By joining a business network, SMEs can increase their competitiveness through innovation and efficiency gained from collaboration and information exchange. Increasing competitiveness allows SMEs to grow and absorb more human resources (Kusbandono & Rosyad, 2019).

A strong absorptive capacity is very important for business sustainability. Companies that have good absorptive capacity can adapt to change, take advantage of business opportunities, adjust to regulatory changes, manage risks, and encourage innovation and continuous learning. All of this contributes to the company's operational sustainability and long-term growth. However, in this study this did not happen because the SMEs studied were very slow in acquiring new knowledge, did not study consumer desires enough and did not look for new ways to combine existing knowledge with new knowledge related to the business they were running so this did not affect business sustainability. studied (Herman and Nohong, 2022). Absorptive capacity may not have an effect on business sustainability for several reasons such as effective leadership, good management, and the right business model often have a greater influence on business sustainability than workforce absorptive capacity alone. For example, strong leadership can drive innovation and operational efficiency that supports long-term sustainability (Yanti et al, 2018). Business sustainability is also greatly influenced by the business's ability to adapt to market changes and continue to innovate. Absorptive capacity does not directly affect a company's ability to innovate or respond quickly to market changes (Wuryaningrat, 2013). The use of technology and digitalization can be more critical in determining business sustainability. Technology can increase efficiency and reach a wider market, which is not always related to how much labor a company can absorb (Lyver & Lu, 2018). Access to adequate capital and infrastructure is also very influential. Without access to financial resources and good infrastructure, it is difficult for businesses to develop and be sustainable, regardless of their absorptive capacity (Chatterjee et al., 2022). Government policies and regulatory support can have a major impact on business sustainability. This role includes subsidies, incentives and regulations that support a conducive business climate (Fitriati et al., 2020).

Business networks, absorptive capacity and business sustainability of SMEs are interrelated. Business networks are connections and business

relationships between SMEs and business partners, distributors, or other network members (Herman and Nohong, 2022). Business networks give SMEs access to broader markets, resources, expertise, collaboration and learning. This helps SMEs increase their absorptive capacity and face business challenges. Absorptive capacity refers to the ability of SMEs to absorb, manage and exploit existing business opportunities. Strong absorptive capacity allows SMEs to adapt to market changes, identify business opportunities, adapt to regulatory changes, manage risks, and encourage innovation (Liu, 2018). Good absorptive capacity plays a key role in the sustainability of SME businesses.

SME business sustainability refers to the business's ability to survive, grow and develop sustainably. Business networks and strong absorptive capacity contribute to the sustainability of SME businesses. Through business networks, SMEs gain access to wider markets, resources, knowledge, collaboration and new business opportunities. Meanwhile, strong absorptive capacity helps SMEs adapt to market changes, exploit opportunities, manage risks and encourage innovation. Thus, good business networks and absorptive capacity positively influence the sustainability of SME businesses (Astawa et al., 2023).

In order to improve the ability of businesses to survive, grow and develop sustainably, SMEs in Madiun City can take several steps, for example utilizing digital platforms such as social media, websites and e-commerce to expand market reach and increase sales (Kir & Erdogan, 2021). Participate in an outreach program to increase understanding of business digitalization development strategies (Müller et al., 2021). Developing products and innovations that are better than competitors to attract new customers and retain old ones (Waehning et al., 2023). Increasing financial capabilities through access to business capital and effective financial management (Pratama et al., 2021). Participate in training and development programs to improve HR skills and knowledge in facing market and technological changes (Demirkan et al., 2022). Establish partnerships with government, educational institutions and business organizations to gain support in business development and access to wider markets (Nguyen et al., 2021). Participate in micro business development programs organized by local governments such as the Lapak UMKM program to get the necessary assistance and support (Purwati et al., 2020).

To ensure that SMEs in Madiun City can expand their business networks and increase their absorptive capacity, future research needs to focus on several important aspects such as examining the effectiveness of using digital platforms in increasing market access and building business networks. This

includes the use of social media, e-commerce, and other digital applications (Fiati, 2021). Then examine training programs that can improve the managerial and technical skills of SME players. Research should identify specific training needs to increase competitiveness and production capacity (Marselina et al., 2024). Apart from that, researching effective partnership models between SMEs and the government, educational institutions and large companies. Research could explore how this collaboration can help SMEs access wider markets and better resources (Pasaribu, 2021). Identify and develop product innovation strategies that can increase the competitiveness of SMEs. Research needs to focus on how innovation can be implemented effectively and sustainably in various business sectors (Amal, 2023). Research on better access to capital and effective financial management strategies. This is important to ensure SMEs have sufficient resources for expansion and development (Kusbandono & Rosyad, 2019; Rahayu & Hidayah, 2023). Evaluating government programs that have been running to empower SMEs, such as the Lapak UMKM program. Research should assess the impact of these programs and provide recommendations for improvement (Rahayu & Hidayah, 2023). Thus, future research can provide practical and strategic guidance to support SMEs in Madiun City in expanding their business networks and increasing their absorptive capacity effectively for business sustainability.

Thus, business networks and absorptive capacity have an important role in maintaining the sustainability of SME businesses. Through strong business networks and good absorptive capacity, SMEs can access the resources, business opportunities, knowledge and collaboration needed to survive and grow in a competitive market. The SMEs studied need to emphasize things that have not been supported in this research, such as the need to obtain the required resources from business mentors, the need to increase business income and increase the number of consumers, guarantee product quality, follow environmental conditions so as not to be left behind and prepare further regeneration to run the business so that the business continues. Apart from that, further research can be carried out on more specific SMEs so that the predictive power can be stronger and more accurate in supporting the theory as well as adding a larger number of respondents so that the research results become broader.

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