

## DEALING WITH DISTRESS IN THE TOURISM INDUSTRY: THE ROLE OF LEADERS, AGILITY AND COLLABORATION ON SME RESILIENCE

By

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### Article Info

#### Article history:

Received Oct 09, 2024

Revised Nov 22, 2024

Accepted Dec 12, 2024

#### Keywords:

Entrepreneurial Leadership,  
Agility, Collaboration,  
Resilience, Small Medium  
Enterprise

### ABSTRACT

Business resilience is an essential issue in entrepreneurship studies, especially in the tourism industry support sector in Bali. Dynamic and rapid changes in the industrial environment often threaten business sustainability, especially in the small and medium enterprises (SMEs) sector, the backbone of the Balinese economy. Although SMEs significantly contribute to the tourism sector, this sector remains vulnerable to change and has a relatively short business life. This study explores the factors determining business resilience in tourism-supporting SMEs by examining the relationship between entrepreneurial leadership, agility, collaboration, and resilience. This study uses a quantitative approach with Structural Equation Modeling (SEM) analysis through SMART PLS 3.0 software. Data were collected from 261 SME entrepreneurs in the creative tourism industry sector in Bali through a questionnaire. The study results indicate that entrepreneurial leadership has a direct positive effect on agility and resilience. Other findings suggest that agility directly affects collaboration and resilience, while collaboration contributes positively to resilience. In addition, the study's results suggest an indirect effect, where agility acts as a mediating variable that strengthens the relationship between entrepreneurial leadership and resilience. At the same time, collaboration mediates the relationship between agility and resilience. This study makes an essential contribution to the Bali tourism sector by showing that entrepreneurial leadership, agility, and collaboration are key elements to increase the resilience of SMEs in facing industry dynamics. These findings provide practical insights for SME actors to strengthen business resilience through improving leadership skills, developing agility, and strategic collaboration to support the sustainability of the tourism sector in Bali.

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## 1. INTRODUCTION

Companies are faced with a very dynamic industrial environment such as the rapid development of globalization, rapid increase and development of market and customer needs and demands, digitalization in every aspect, and unexpected events that have a significant impact on companies, such as economic crises, natural disasters, terrorist attacks and even the most recent is the emergence of a pandemic that has had a global effect throughout the world. Changes in the company's external environment are often difficult to predict, requiring companies to have dynamic capabilities to be flexible and adaptive to constantly adjust to the changes that occur (Teece *et al.*, 1997). Dynamic

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capabilities can help companies integrate, build, and reconfigure their internal and external resources and capabilities to cope with rapid change.

Changes in the business environment impact all industrial sectors, but one of the most obvious impacts is on the small and medium enterprise (SME) sector. In SMEs, all managerial and operational decisions depend on the decisions and thoughts of the leader or owner. The existing organizational structure tends to be flatter and has a smaller management team compared to large companies (Castrogiovanni, 2002).

Often, management team members in SMEs have various backgrounds, skills, functional expertise, and industry experience. The number of employees and management teams is often limited, making employees have to hold multiple positions and control several fields of work at once. The diversity of roles and tasks in the management team means that SME leaders or entrepreneurs need the ability to influence and guide their employees' performance to achieve predetermined targets and goals (Renko *et al.*, 2015).

Entrepreneurs who can obtain high commitment and direct their organizations to achieve opportunities and innovation performance will be able to create higher company value even when the company faces changes in its business environment. One of the abilities that entrepreneurs must have is entrepreneurial leadership. Entrepreneurial leadership is defined as the ability of an entrepreneur as a leader in an organization to influence and guide the performance of employees and their organization to achieve organizational goals, including recognizing entrepreneurial opportunities (Renko *et al.*, 2015).

Leaders who can motivate and direct their organizations to be quick and responsive to change will be able to survive when there is turmoil in the business environment, even when these conditions begin to threaten business performance and direct their organizations to bounce back and rebuild structures after disruptive events occur (Karimi & Walter, 2021).

Companies must also focus on increasing their speed in gaining market share. Still, they must also be able to increase agility and resilience and adapt to environmental changes and unexpected challenges (Shin *et al.*, 2015). Companies can manage environmental changes by building dynamic capabilities, namely agility and resilience (McCann, 2009), because companies with high levels of agility and resilience will be more profitable even when faced with environmental turbulence. The concept of agility represents the company's ability to quickly and accurately anticipate environmental changes and seek new opportunities (Camarinha-Matos *et al.*, 2009). Agility includes the ability to organize the organization's systems and operations to adjust how it works to the current situation (Woljer *et al.*, 2011). Rapid changes experienced by companies that the company can still manage can be predicted through the business cycle. The company can build the ability to manage these changes (McCann, 2009). However, for disruptive changes that are drastic, radical, and unexpected, such as natural disasters or crises in the form of economic crises, terrorist attacks, or pandemics, special abilities are needed to respond (Chistensen & Overdoff, 2000). Strategic agility in organizations requires not only adaptability but also flexibility achieved through a creative and proactive attitude and adjusting the configuration of resources and strategies in response to change (Papla *et al.*, 2022).

The tourism sector is one of the industries vulnerable to various external dynamics, such as policy changes, economic fluctuations, natural disasters, pandemics, and changes in tourist preferences. The sector's dependence on human mobility is highly affected by global conditions, as seen during the COVID-19 pandemic, which caused a sharp decline in the number of tourists and significantly impacted the regional economy that relies on tourism. As one of Indonesia's leading tourist destinations, Bali experienced this impact in real terms, with many small and medium enterprises (SMEs) that rely on this sector also affected.

SMEs are important in supporting the tourism sector, especially in Bali. As producers of local products such as handicrafts, traditional fabrics, specialty foods, and accommodation services, SMEs not only support the needs of tourists but also preserve local culture. However, SMEs' dependence on tourism makes them vulnerable to shocks. The inability to adapt quickly can threaten these SME businesses' sustainability, ultimately impacting the local and regional economy. In these uncertain conditions, agility is key for SMEs to survive and thrive. Agility includes quickly identifying changes, designing adaptation strategies, and taking appropriate action. This involves product innovation, market diversification, and technology to support business sustainability. For example, many SMEs in Bali have begun to turn to digital marketing to reach a broader market or develop new products that do not only depend on tourists.

In the context of small and medium enterprises (SMEs), agility does not only focus on organizational agility alone; entrepreneurial agility also needs attention because of the central role of entrepreneurs in all managerial and operational decision-making activities of SMEs. Entrepreneurial agility will enable SMEs to adjust their resource configurations, systems, and strategies in response to market changes (Bullough & Renko, 2013). Entrepreneurial agility is highly dependent on the figure of the SME entrepreneur himself (Grand & Bartl, 2019). The cognitive abilities of entrepreneurs can guide entrepreneurs to identify, anticipate, and utilize existing entrepreneurial opportunities to adapt to environmental changes and carry out strategic adjustment activities by creating new business models (Karimi & Walter, 2021). Agile entrepreneurs will be responsive to changes in their environment and make decisions quickly

and accurately when faced with complex situations. They will avoid panic easily when faced with unfavorable situations and will understand the conditions of their business (Grand & Bartl, 2019).

Market dynamics and changes in the business environment are a challenge for companies. Changes that are sometimes extreme and radical can threaten the survival of the company's business, so companies need the ability to adapt and be adaptive to survive the threats and changes faced by the company (Hayward *et al.*, 2010). Changes that are drastic and radical will result in the company being in a condition of quite high strategic uncertainty so that it can have an impact on business performance and also business continuity in the future (Emueje *et al.*, 2020). In addition to agility, the concept of resilience is also considered relevant for organizations to deal with environmental changes that are unpredictable and can even disrupt or damage the course of business (Camarinha-Matos *et al.*, 2009). The concept of resilience in the business sector is one of the dynamic capabilities needed by companies when faced with difficult and uncertain situations to survive and return to stability after facing shocks (Vargas & Rivera, 2019). Resilience is considered to represent the ability to anticipate, anticipate, take action adapt to disruptive changes, and return to the desired condition after the disruption process by restructuring the company's capabilities or performance (Camarinha-Matos *et al.*, 2009). Resilience is a certain skill that a company has to manage the impact of risks that may be faced by the company when an event or change occurs that is experienced by the company (Ibora *et al.*, 2020).

The resilience capacity of SMEs is largely determined by the resilience capacity of their entrepreneurs because the role of entrepreneurs in SMEs is very important, being involved in all aspects of SME activities, both in the form of managerial decision-making, operational activities, and also their social networks (De Vries & Shields, 2006). Entrepreneurs who have resilience capacity will be able to direct their businesses and make decisions quickly and accurately when the company is faced with changes and uncertain situations. SME entrepreneurs who have resilience capacity will be more flexible, adaptive, and innovative, which is one of the important capacities to achieve sustainable competitive advantage. Resilient entrepreneurs will be able to feel the disruptions that occur earlier which will allow entrepreneurs to design anticipatory actions quickly and can reconfigure their resources to respond to the changes they feel (Iftikhar *et al.*, 2021).

Several previous studies related to entrepreneurial leadership on organizational agility and resilience show mixed research results. There needs to be more consistency in research results. Research conducted by Khalid & firdaus, (2021); Khalid *et al.*, (2020), (Dabić *et al.*, 2021); Sanatigar *et al.*, (2017); Ibrahim & Rashid, (2019) dan Tahmasebifard *et al.*, (2017); shows that entrepreneurial leadership has a positive and significant effect on the agility and resilience of a company. In addition, research conducted by Braun *et al.*, (2017) entitled The Development, Validation, and Practical Application of an Employee Agility and Resilience Measure to Facilitate Organizational Change shows that focusing on individual agility and resilience can prepare employees to handle uncertainty more successfully by adapting to change more quickly. However, the research results by Akkaya & Tabak, (2020); show that leadership has no relationship or connection with organizational agility. The various research results provide a gap for researchers to conduct further research. This study will add collaboration variables as mediating variables that bridge the relationship between entrepreneurial leadership and organizational agility and resilience. Based on the theory of rational view (Dyer & Singh, 1998) individual strategies make it difficult for companies with limited resources to achieve a competitive advantage, so collaboration between individuals and organizations is needed to cover these deficiencies.

The limited resources and capabilities of SMEs impact SMEs' ability to maintain their business continuity (Franco *et al.*, 2020). Companies cannot only focus on the company's internal resources and capabilities but also increase their market value by collaborating with other companies or stakeholders (Camarinha-Matos *et al.*, 2009). Companies that collaborate through the exchange, combination and development of shared resources and capabilities will produce special assets that are difficult to imitate and replace by their competitors (Dyer & Singh, 1998).

Agile SMEs will be quicker to identify and have a proactive and creative attitude towards changes that occur so that they will be quicker in adjusting their capabilities and resources in facing these changes in order to adapt to changes, including when SMEs need assistance from external parties to improve their quality through collaborative activities (Camarinha-Matos *et al.*, 2009). Collaborative activities are considered a mechanism that can facilitate SMEs' agility and resilience to adapt and reduce the impact of disruptions (Camarinha-Matos *et al.*, 2009). In a globally interconnected environment, collaboration is important to facilitate SME agility and resilience (Camarinha-Matos *et al.*, 2009). Agile SMEs will be quicker to respond to opportunities and information needed to develop collaborative activities (Ribeiro-Soriano & Urbano, 2009). Collaboration activities are one of the activities that can help companies create sustainable innovation so that they can maintain business continuity and also gain advantages in the long term (Miles *et al.*, 2006). The collaboration will increase the company's resilience in facing unexpected and radical events (Camarinha-Matos *et al.*, 2009). With collaboration, companies can expand their supply chains and market networks without constantly developing internal resources and capabilities to respond to change (Dyer & Singh, 1998).

Based on the background explanation that has been presented above, this study aims to analyze the relationship between entrepreneurial leadership and agility and resilience in Small and Medium Enterprises and the role of Collaboration as a mediating variable that can influence the resilience of SMEs in facing changes and shocks in the industrial environment.

## 2. LITERATURE REVIEW

### Dynamic Capability

The dynamic management framework emphasizes the company's ability to adapt quickly to a changing environment. To achieve sustainable excellence, companies must adjust their internal and external strengths to rapid changes. Dynamic capabilities state the importance of companies renewing their resources and capabilities to face environmental changes and market dynamics to maintain their competitive advantage (Tondolo & Bitencourt, 2014). Dynamic capabilities refer to the company's capacity to renew its competencies to adapt to environmental changes, prepare for competition, and survive in a difficult-to-determinable market.

### Entrepreneur Leadership

Resources to create their own business by building a team and optimizing their resources. The entrepreneurial process, from identifying opportunities and finding and exploiting them to the execution process, will integrate the attributes of entrepreneurs and their environment. Entrepreneurial leadership is defined as the ability of an entrepreneur as a leader in an organization to influence and guide the performance of employees and their organization to achieve organizational goals, including recognizing entrepreneurial opportunities (Renko *et al.*, 2015). According to (Hentschke, 2009) entrepreneurial leadership is a leadership style that can delegate, build employees to behave responsibly, make and determine decisions and work independently. Leaders with an entrepreneurial spirit will be able to produce fast and effective strategic decisions that can direct their team's performance in adapting to a dynamic industrial environment. Leaders with an entrepreneurial spirit can take the initiative to combine their resources innovatively and are willing to take risks for each of their actions (Renko *et al.*, 2015).

### Entrepreneurial Agility

In dealing with environmental dynamics, agility is the ability to move quickly and adapt flexibly in identifying, anticipating, taking advantage of every opportunity, and avoiding possible negative consequences (McCann, 2009). Big change can be an opportunity and innovation for companies and high growth if the company has agility in dealing with these changes (Christiansen & Overdoff, 2000). Skills related to agility are related to creating openness and implementing strategies quickly and appropriately in responding to change (Dyer & Singh, 1998). One approach in the context of dynamic capabilities is entrepreneurial agility (Ismail *et al.*, 2014). Entrepreneurial agility is the cognitive ability of entrepreneurs to anticipate, identify and utilize entrepreneurial opportunities to anticipate environmental changes and carry out strategic adjustment activities by creating new business models or innovating to respond to changes in market dynamics (Karimi & Walter, 2021). (Ismail *et al.*, 2014). Agility in SMEs is greatly influenced by the role of entrepreneurs, where agile entrepreneurs will make quick and precise decisions when faced with changing conditions and be proactive and creative in seeing opportunities that may arise from changing situations (Srivastava, 2011). The ability or agility possessed by entrepreneurs can facilitate the process of exploring and exploiting new strategies and also the process of adopting new configurations in the organization according to the context of changes in the company's external context quickly and precisely through ways that allow new companies to exploit new markets and generate better competitive advantages (Grand & Bartl, 2019)

### Collaboration

Companies must have or control rare, valuable, and difficult-to-imitate strategic resources and capabilities, and they have a process to exploit them. The most widely used approach is the resource-based view, but the resource-based view only focuses on exploiting competitive advantages from the company's internal perspective. Research shows that to remain competitive, companies must explore external resources; one way is to utilize resources from other industry players (Camarinha-Matos *et al.*, 2009). Collaboration between companies is based on the theory of relational view (Dyer & Singh, 1998) a whichelaborateseonurce-based view. The relational view theory states that companies can gain mutual benefits by building Cooperation with partners through a combination, exchange and joint development of special resources. Benefits can be obtained by investing in special assets resulting from substantial knowledge exchange aimed at mutual learning, combining complementary (rare) resources or capabilities to jointly create exclusive products, services or technologies and obtaining more effective governance mechanisms to reduce transaction costs. When companies collaborate, they can exchange knowledge and information to gain relational rent (Dyer & Singh, 1998) yang merupakan manfaat bagi mitra melalui kombinasi, pertukaran dan co-pengembangan sumber daya yang which is a benefit for partners through the combination, exchange and co-development of special resources. Collaboration is also seen as overcoming the problem of resource scarcity experienced by SMEs by providing access to previously unavailable external resources and Cooperation for the development of new resources in maintaining their advantages (Das & Teng, 2000). The collaboration will provide access to resource information,



technology and markets (Hitt *et al.*, 2000) so that SMEs can maintain sustainability at a lower cost because SMEs do not need to develop all the resources or knowledge needed from scratch (Klewitz & Hansen, 2014).

### Resilience

High environmental uncertainty and limited resources are the most significant obstacles experienced by entrepreneurs. The difficulties and uncertainties experienced by entrepreneurs can be overcome by developing resilience (Bullough *et al.*, 2014). The construct of resilience is considered relevant in the field of entrepreneurship research because resilience is considered to be able to explain why some entrepreneurs perform better than others who are not resilient. In addition, the resilience of entrepreneurs encourages them to adapt to new circumstances and contribute to long-term sustainability through innovation. (Korber). Resilience is considered one of the abilities to overcome the turbulence of the business environment (Ansoff, 1957; Vargas & Rivera, 2019), because resilience is regarded as one of the business's abilities to be flexible and adaptive by reconfiguring the resources they have to adapt to changes that occur (Wildavsky, 2017). Other researchers also stated that resilience is a basic quality companies need to respond to changes that occur productively and significantly and recover from conditions that are detrimental to the company (Sutcliffe & Vogus, 2003). In SMEs, the resilience will be lower than in other large organizations, which is caused by various external shocks such as bad weather, terrorist attacks, pandemics, political instability, pandemics etc., creating significant challenges to the structure of SMEs, including the success and sustainability of their businesses. The ability of SMEs to recover from difficulties, conflicts and failures is reduced due to a lack of crisis planning, limited internal resources, a narrow customer base and low bargaining power. The behaviour and personality attributes of entrepreneurs have a strong impact on the structure, strategy and performance of SMEs (Holland & Sheperd, 2013) Kruenger & Brazel, 1994) (Bullogh & renko, 2013). Previous studies have shown that entrepreneurial resilience is key to business success when entrepreneurs face challenges, such as globalization, digitalization and crises (Ayala & Manzano, 2014).

### 3. RESEARCH METHODS

This research model can be seen in Fig.1. This study proposes that entrepreneurial leadership directly impacts agility and resilience in SMEs in facing changes and shocks from the SME industry environment. The research model also proposes that agility directly impacts collaboration and resilience. Furthermore, collaboration is also proposed as a mediator of the impact of agility on resilience. Finally, the research model shows that collaboration also directly impacts SME resilience in responding to crises and shocks that occur in SMEs.

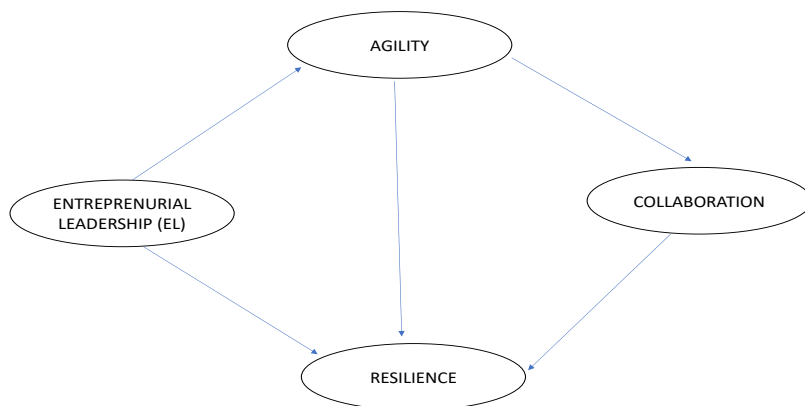


Figure 1. Research Model

#### The Impact of Entrepreneurial Leadership on Agility

The dynamics of the dynamic external environment of very dynamic SMEs make SMEs responsive to changes and opportunities that exist and continue to innovate to maintain the continuity of their business performance (Calvo & García, 2010). When there is a change in the business environment, the company must adapt and try to capture existing opportunities before competitors can seize them. Leaders with an entrepreneurial spirit will be able to produce fast and effective strategic decisions that can direct their team's performance in adapting to a dynamic industrial environment.

Based on empirical studies from previous studies, the following research hypotheses are formulated:

**H1: Entrepreneurial leadership has a positive influence on the agility of SMEs.**

**The Impact of Entrepreneurial Leadership on Resilience**

Leaders with an entrepreneurial spirit will be able to identify opportunities in the future and anticipate risks that may arise by utilising the company's resources and capabilities (Renko et al., 2015). Leaders with an entrepreneurial spirit can take the initiative to combine their resources innovatively and are willing to bear the risk of each action (Renko et al., 2015). Based on empirical studies from previous research, the following research hypotheses are formulated:

**H2: Entrepreneurial leadership has a positive influence on the resilience of SMEs.**

**Impact of Agility on Resilience**

When faced with a disruptive situation threatening business continuity, agility is needed to form resilience to produce a faster and more precise response to these changes (McCann, 2009). Entrepreneurial agility is the ability of a company's management to proactively create new strategic steps by introducing new ways in potential new strategic steps, focusing on the future and making quick decisions in the face of new opportunities that are sometimes radical (Grand & Bartl, 2019)

Based on empirical studies from previous studies, the following research hypotheses are formulated:

**H3: Entrepreneurial Agility has a positive effect on the resilience of SMEs**

**Impact of Agility on Collaboration**

When individual company strategies are considered insufficient to develop the company's resources and capabilities in responding to too rapid changes, collaboration activities can be considered a profitable alternative (Dyer & Singh, 1998). Collaboration activities require identifying potential partners and activities that fit the company's needs (Camarnha). Entrepreneurs who have agile abilities will have the ability to explore and exploit innovation opportunities and strategies and also identify new opportunities through collaboration activities in responding to environmental dynamics (Karimi & Walter, 2021).

Collaborative activities are also a process of adopting new reconfigurations in the organization, so entrepreneurial Agility is needed as one of the company's managerial abilities to make new strategic steps proactively by introducing new ways in potential new strategic steps, focusing on the future and making decisions quickly in facing new opportunities (Grand & Bartl, 2019)

Based on empirical studies from previous studies, the following research hypotheses are formulated:

**H4: Entrepreneurial Agility has a positive effect on SME collaboration**

**Impact of Collaboration on Resilience**

Collaboration is one of the dynamic capabilities needed by SMEs to address the sustainability of their competitive advantage (Ambrosini & Bowman, 2009); where through collaboration, companies can build, integrate and reconfigure strategic resources from internal and external companies to respond to changes that occur quickly (de Almeida et al., 2021). Through collaboration, companies can develop their business resilience by creating a combination of resources, capabilities and special governance mechanisms that are difficult to imitate by competitors who implement competitive strategies individually (Dyer & Singh, 1998)

Based on empirical studies from previous studies, the following research hypotheses are formulated:

**H5: Collaboration has a positive effect on SME resilience**

**The role of Agility as a mediator in the relationship between Entrepreneurial Leadership and Resilience**

Leaders must recognize opportunities not seen by others and exploit them to create value for their company (Renko et al., 2015). Leaders with an entrepreneurial spirit will be able to direct the company to have the ability to be agile in dealing with change and guide the performance of employees and their organizations to adjust and adapt to new processes quickly and accurately (Renko et al., 2015). Leaders with an entrepreneurial spirit will be able to produce fast and effective strategic decisions that can direct their team's performance in adjusting to a dynamic industrial environment. On the other hand, entrepreneurs as leaders must also be able to predict and anticipate the risks faced by their businesses to minimize the impact of possible risks (Chen, 2007). Entrepreneurial resilience results from adapting to changes in the business environment that require entrepreneurs to change and adjust business strategies and develop skills to deal with various situations (Ayala & Manzano, 2014). When faced with unexpected situations and even disruptive to the continuity of their business, leaders with an entrepreneurial spirit can motivate employees and their organizations to be able to anticipate and adapt to existing disruptions to survive and even be able to direct

the performance of their organizations to rise again when they fail (Bullough & Renko, 2013). Through Agility in finding new opportunities and innovations in order to continue to adapt to environmental dynamics Based on empirical studies from previous studies, the following research hypotheses are formulated:

**H6: Entrepreneur Agility mediates the relationship between entrepreneurial leadership and resilience in SMEs**  
**The Role of Collaboration as a mediator in the relationship between Agility and Resilience**

Collaborative activities carried out by companies are one of the facilitators between agility and resilience (Camarinha-Matos et al., 2009). Through collaboration, companies can increase their resilience by creating special resources and capabilities, combining assets and capabilities with collaboration partners, and even creating more effective governance than their competitors (Dyer & Singh, 1998). The collaboration will strengthen the company's resilience base through network expansion, supply chains for companies, and additional knowledge and resources needed when facing unexpected events or complex and disruptive situations.

To increase the effectiveness of collaboration activities, SMEs need agility from SME entrepreneurs to identify new opportunities and risks that can arise from the dynamics faced by the company. Collaboration is an activity of exchanging, combining or integrating resources and knowledge of the company and external parties of the company, so the agility of entrepreneurs is needed to be flexible in adjusting resources, management processes and strategic decisions during collaborative activities involving external parties of the company (Camarinha-Matos et al., 2009). In addition, the agility of entrepreneurs is also needed to identify the types of collaboration and collaboration partners SMEs need to adapt to change.

Based on empirical studies from previous studies, the following research hypotheses are formulated:

**H7: Collaboration mediates the relationship between entrepreneurial agility and resilience in SMEs**

**Sampling and Data Collection**

The initial step researchers take to validate the proposed theoretical model is to conduct an empirical analysis to test important aspects of the model, namely the relationship between entrepreneurial leadership, agility, collaboration and resilience. The population in this study consisted of SME entrepreneurs in Bali. The SME sector was chosen because SMEs are the largest economic supporting sector in Bali. However, the SME sector is an industry that is fragile and is very vulnerable to the dynamics of changes in its industrial environment, such as the threat of terrorism, natural disasters, travel warnings or declining tourist confidence, which have a significant impact on market changes. On the other hand, this industry sector contributes much regional income to Bali. In SMEs, the owner acts directly as a manager and also a decision maker in SMEs, so the population in this study is adjusted to the number of SME business units in Bali based on the latest data in 2023 with the assumption that the SME can maintain the sustainability of its business, especially after going through a fairly severe shock, namely the Covid-2019 pandemic. The sample determination in this study uses the following criteria: SME entrepreneurs who have been running their business for at least 3 years, which can be seen based on their annual business performance report, and SME entrepreneurs who are still surviving and running their business until now after going through the shock of the Covid-19 pandemic. This criterion is intended to determine the resilience of SME entrepreneurs. In this study, 261 respondents were collected. The data analysis used in this study used AMOS-SEM analysis to test the relationship between variables. *Structural Equation Modeling* is a method that uses a causal modelling approach that aims to maximize the clarity of the variants of latent variable constructs (Hair et al., 2011, 2014; Wong, 2013).

**Measures and instruments**

The steps used to operationalize the variables in the research model were adapted from previous studies. Table 1 shows the sources of measures used in this study. Data were collected using a questionnaire. The questionnaire included 36 questions that captured data on the constructs in the research model. All items were measured using a 5-point Likert-type scale.

**Table 1. Source of measures**

| Construct                  | Indicator               | Item | Reference/s                                      |
|----------------------------|-------------------------|------|--|
| Entrepreneurial Leadership | Innovative behavior     | 5    | (Nguyen et al, 2021); (Bagheri,2017)             |
|                            | Organizational Behavior | 2    |  |
|                            | Structure and mechanism | 3    |  |
| Agility                    | Sensing Capability      | 3    | (Zitzkiene & Deksnys, 2018); (Ahmed et al, 2021) |
|                            | Responding Capability   | 3    |  |
|                            | Adapting capability     | 3    |  |

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|               |                           |   |                          |
|---------------|---------------------------|---|--------------------------|
| Resilience    | Configuration of resource | 2 | (Parker & Ameen, 2018)   |
|               | Risk Management           | 4 |                          |
| Collaborative | Innovation capability     | 3 | (De Almeida et al, 2021) |
|               | Management Knowledge      | 3 |                          |
|               | Relationship Capability   | 5 |                          |

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#### 4. RESULT AND DISCUSSION

##### Data Analysis

The population of this study is SMEs in Bali. The sampling technique for this study uses the non-probability sampling method, requiring the targeted SMEs to be established for at least 3 years. The sample of this study has collected 261 respondents. Based on the data in Table 2, it can be seen that the characteristics of the respondents in this study are dominated by female entrepreneurs, as much as 55.6%. This shows that women dominate creative industry players because women are considered to have many ideas related to businesses such as food and crafts, thus encouraging more women to manage SMEs.

On the other hand, most creative industry players are in the productive age range, namely 18-30 years, with a percentage of 39.1%. In addition, most creative industry players have a fairly high level of education, namely up to college, with a percentage of 58.6%. Creative industry players currently have an orientation to get higher education that can benefit their businesses' success.

**Table 2. Respondent Characteristic**

| Item                          | Frequency | percentage |
|-------------------------------|-----------|------------|
| Gender                        |           |            |
| Male                          | 116       | 44,4%      |
| Female                        | 145       | 55,6%      |
| Age                           |           |            |
| 18-30 years                   | 102       | 39.1%      |
| 30-4- years                   | 61        | 23,4 %     |
| 40-50 years                   | 72        | 27,6%      |
| ➤ 50 years                    | 26        | 10%        |
| Last Education                |           |            |
| Elementary School             | 1         | 4%         |
| High School/Vocational School | 88        | 33,7%      |
| D1                            | 1         | 4%         |
| D4/S1                         | 118       | 45,2%      |
| S2                            | 13%       | 5%         |
| Marital Status                |           |            |
| Single                        | 157       | 60,2 %     |
| Family                        | 89        | 34,1%      |
| Widow/Widower                 | 15        | 5,7%       |
| Family Dependents             |           |            |
| 1                             | 111       | 42,5%      |
| 2                             | 58        | 22,3%      |
| ➤ 2                           | 92        | 35,2%      |
| Business Length               |           |            |
| 1-3 years                     | 127       | 48,7%      |
| 5-10 years                    | 92        | 35,2%      |
| ➤ 10 years                    | 42        | 16,1%      |
| Business Sector               |           |            |
| Culinary                      | 125       | 47,9%      |
| Trader                        | 69%       | 26,4%      |
| Handicraft                    | 27        | 10,3%      |
| Textile                       | 13        | 5%         |
| Transportation                | 4         | 1,5%       |
| Other                         | 23        | 8,8%       |
| Associations Joined           |           |            |

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|                   |     |       |
|-------------------|-----|-------|
| 1                 | 160 | 61,3% |
| 2                 | 57  | 21,8% |
| ➤ 2               | 44  | 16,9% |
| Shocks            |     |       |
| Ever Experienced  | 225 | 86,2% |
| Never Experienced | 36  | 13,8% |

Table 2 also shows that 60.2% of creative industry players are still single or unmarried, and the majority of family members are one person or around 42.5%. Most creative industry players operate in the culinary sector, which is 47.9%. From the results of the respondents' answers, creative industry players realize the importance of joining a community/association. As many as 61.3% of business actors are at least one community/association member. The community is seen as being able to provide access to information and external resources that are useful for the performance of MSME businesses; on the other hand, it can be seen that the length of time the creative industry players have been in business is dominated by the age of the business ranging from 1-3 years as much as 48.7%, while the longer the age of the business, the fewer the number of business actors. This indicates that MSMEs need help maintaining their business in the long term. This can also be seen from the respondents' answers, stating that 86.2% of business actors have experienced problems/shocks, but their businesses have still survived until now.

Data analysis using Smart-PLS 3.0, where structural equation modelling (SEM) is a regression-based approach to test the original research model with various constructs and measurements. PLS is used because it is preferred for exploratory research and does not require large samples or normally distributed multivariate data. Factor loadings, composite reliability, and average variance entrance (AVE) are used to estimate convergent validity (Hair et al., 2010). Based on the results of the structural model test (inner model), as seen in Table 3, the collaborative variable influences the predictive power of the entire model by 0.530 or 53%.

In comparison, the remaining 47% is influenced by other factors or variables not included in the equation model. The Organizational Agility variable influences the predictive power of the entire model by 0.539 or 54%.

In comparison, the remaining 46% is influenced by other factors or variables not included in the equation model. In addition, testing on the inner model can also be seen by evaluating the predictive relevance stone-Geiser Q-Square test for predictive relevance. From the R-Square value, it is then entered into the following Q-Square equation:  $Q^2 = 1 - (1 - R^2)(1 - R^2)(1 - R^2) \dots (1 - R_p^2)$

$$Q^2 = 1 - (1 - 0,530) * (1 - 0,461) * (1 - 0,777)$$

$$Q^2 = 0,952 = 95\%$$

Based on the Q-Square test, a value greater than 0 (zero) means that the model has predictive relevance, while a Q-square value less than 0 (zero) indicates that the model has less predictive relevance (Ghozali, 2008). The Q-Square results above indicate that the model has predictive relevance because it has a value of 0.952 or greater than 0 (zero), meaning that the model is very good to use.

**Table 3. Structural Model Testing**

| Variabel                         | R-square |
|----------------------------------|----------|
| <i>Collaboration</i>             | 0.530    |
| <i>Organizational Agility</i>    | 0.539    |
| <i>Organizational Resilience</i> | 0.777    |

The concurrent validity test is based on the correlation between the reflective indicator score and the latent variable score. One of the criteria for an item to be declared valid is if the loading factor value is >0.5. The results of the concurrent validity test (Table 4) show that the entrepreneurial leadership, organizational agility, organizational resilience, and collaborative variable items have a loading factor value of >0.5, meaning that the item is valid in measuring the entrepreneurial leadership, organizational agility, organizational resilience, and collaborative variables. The highest loading factor is in the entrepreneurial leadership indicator of Organization Behavior. This shows that more emphasis is placed on the organizational behaviour of small and medium business actors in measuring entrepreneurial leadership. Likewise, the organizational agility construct has the highest loading factor on the adapting capability indicator. In addition, the organizational resilience construct has the highest loading factor on risk management. MSME actors in measuring business resilience emphasize the risk management aspect. The highest loading factor is in the collaborative indicator of management knowledge. This shows that more emphasis is placed on management knowledge in measuring collaboration.

**Table 4. Convergent Validity Testing**

| Construct | Item | Loading Factor |
|-----------|------|----------------|
|-----------|------|----------------|

|   |        |              |
|---|--------|--------------|
| <b>Entrepreneur Leadership<br/>(X1)</b>   | X1.1.1 | 0.535        |
|   | X1.1.2 | 0.727        |
|   | X1.1.3 | 0.658        |
|   | X1.1.4 | 0.813        |
|   | X1.1.5 | 0.827        |
|   | X1.1.6 | 0.771        |
|   | X1.1.7 | 0.793        |
|   | X1.2.1 | 0.690        |
|   | X1.2.2 | <b>0.808</b> |
|   | X1.3.1 | 0.777        |
|   | X1.3.2 | 0.770        |
|   | X1.3.3 | 0.796        |
|   | X1.3.4 | 0.659        |
| <b>Organizational Agility<br/>(Y1)</b>    | Y1.1.1 | 0.704        |
|   | Y1.1.2 | 0.626        |
|   | Y1.2.1 | 0.807        |
|   | Y1.2.2 | 0.878        |
|   | Y1.2.3 | 0.879        |
|   | Y1.3.1 | 0.792        |
|   | Y1.3.2 | <b>0.895</b> |
|   | Y1.3.3 | 0.795        |
| <b>Organizational Resilience<br/>(Y2)</b> | Y2.1.1 | 0.782        |
|   | Y2.1.2 | 0.798        |
|   | Y2.1.3 | 0.697        |
|   | Y2.2.1 | 0.842        |
|   | Y2.2.2 | 0.756        |
|   | Y2.2.3 | <b>0.857</b> |
|   | Y2.2.4 | 0.718        |
|   | Y2.2.5 | 0.785        |
| <b>Collaborative (Z1)</b>                 | Z1.1.1 | 0.671        |
|   | Z1.1.2 | 0.665        |
|   | Z1.1.3 | 0.824        |
|   | Z1.2.1 | <b>0.849</b> |
|   | Z1.2.2 | 0.826        |
|   | Z1.2.3 | 0.813        |
|   | Z1.3.1 | 0.814        |
|   | Z1.3.2 | 0.766        |
|   | Z1.3.3 | 0.784        |
|   | Z1.3.4 | 0.729        |
|   | Z1.3.5 | 0.727        |
|   | Z1.3.6 | 0.762        |

It is necessary to test the composite reliability to test the consistency of understanding the research instrument items according to the respondents' assessment. The construct is declared reliable if the composite reliability value exceeds 0.70 (Ghozali and Lathan 2015). A research instrument with good composite reliability is if the value is above 0.70. Based on the results of the composite reliability test in Table 5, it is known that the entrepreneurial leadership, organizational agility, organizational resilience, and collaborative variables have a composite reliability size greater than 0.70 so that entrepreneurial leadership, organizational agility, organizational resilience, and collaborative mutually strengthen their latent variables or can measure their latent variables.

**Table 5. Composite Reliability Testing**

| Variabel                          | Composite Reliability | Keterangan |
|-----------------------------------|-----------------------|------------|
| <i>Entrepreneurial Leadership</i> | 0.922                 | Reliabel   |
| <i>Collaboration</i>              | 0.940                 | Reliabel   |

|                                  |       |          |
|----------------------------------|-------|----------|
| <i>Organizational Agility</i>    | 0.911 | Reliabel |
| <i>Organizational Resilience</i> | 0.887 | Reliabel |

To test the proposed hypothesis to determine which variables have a significant effect by selecting the p-value. If the p-value is less than 0.05, H0 is accepted or called important, and vice versa; if the p-value is greater than 0.05, H0 is rejected or called insignificant. The results of the research hypothesis testing can be seen in full in Table 6

**Table 6. Path Coefficient Testing**

| Proposed Hypothesis   | Hypothesis | Estimate | P-Value | Keterangan |
|---|------------|----------|---------|------------|
| <i>Entrepreneurial Leadership</i><br>→ <i>Organizational Agility</i>    | H1         | 0.720    | 0.000   | Diterima   |
| <i>Entrepreneurial Leadership</i><br>→ <i>Organizational Resilience</i> | H2         | 0.592    | 0.000   | Diterima   |
| <i>Organizational Agility</i> → <i>Resilience</i>                       | H3         | 0.777    | 0.000   | Diterima   |
| <i>Organizational Agility</i> →<br><i>Collaboration</i>                 | H4         | 0.701    | 0.000   | Diterima   |
| <i>Collaboration</i> → <i>Organizational Resilience</i>                 | H5         | 0.414    | 0.000   | Diterima   |
| <i>Entrepreneurial Leadership</i> → <i>Agility</i>                      | H6         | 0.351    | 0.000   | Diterima   |
| <i>Endurance</i><br><i>Collaboration</i> → <i>Agility</i>               | H7         | 0.290    | 0.000   | Diterima   |

Based on the results of the direct influence test presented in Table 6, the path coefficient values for each variable influence have been given as follows:

**H1: entrepreneurial leadership has a positive effect on SME agility**

The results of the research data analysis show that the path coefficient value of the influence of entrepreneurial leadership on agility is 0.720, and the p-value is 0.000. If  $<0.05$ , then it is stated as significant. It can be concluded that Entrepreneurial Leadership has a positive and significant effect on agility. **Hypothesis 1 is accepted.**

**H2: entrepreneurial leadership has a positive effect on SME resilience**

The results of the research data analysis show that the path coefficient value of the influence of entrepreneurial leadership on resilience is 0.592, and the p-value is 0.000. If  $<0.05$ , then it is stated as significant. It can be concluded that Entrepreneurial Leadership has a positive and significant effect on agility. **Hypothesis 2 is accepted**

**H3: organizational agility has a positive impact on SME resilience**

The results of the research data analysis show that the coefficient value of the path of influence of organizational agility on resilience is 0.777, and the p-value is 0.000. If  $<0.05$ , then it is stated as significant. Organizational agility has a positive and significant effect on resilience. **Hypothesis 3 is accepted**

**H4: organizational agility has a positive impact on SME collaboration**

The results of the research data analysis show that the coefficient value of the path of influence of organizational agility on collaboration is 0.701, and the p-value is 0.000. If  $<0.05$ , then it is stated as significant. Organizational agility has a positive and significant effect on collaboration. So, hypothesis 4 is accepted.

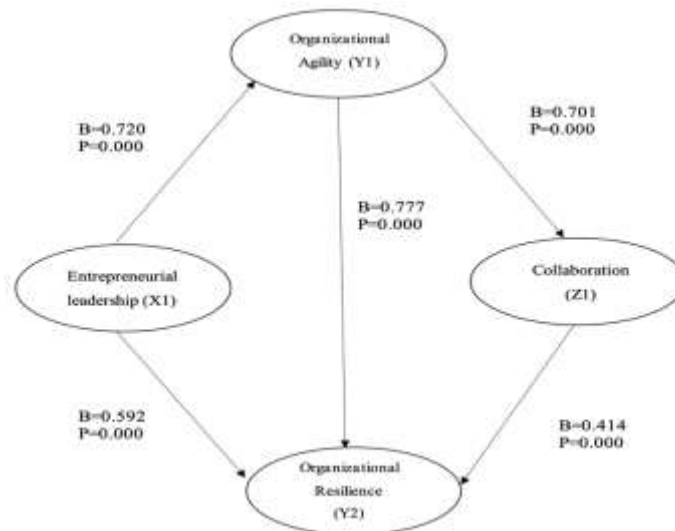
**H5: Collaboration has a positive effect on SME resilience**

The results of the research data analysis show that the coefficient value of the collaboration influence path on resilience is 0.414, and the p-value is 0.000. If  $<0.05$ , then it is stated as significant. Collaboration has a positive and significant effect on resilience. **Hypothesis 5 is accepted**

The PLS results show the indirect influence test between variables, all tested significant ( $p < 0.05$ ). So, the results of the analysis provide the conclusion that agility mediates the relationship between entrepreneurial leadership and resilience. **Hypothesis 6 is accepted.**

H7: Collaboration mediates the relationship between organizational agility and resilience in SMEs

The PLS results show the indirect influence test between variables, all tested significant ( $p < 0.05$ ). So, the results of the analysis provide the conclusion that collaboration mediates the relationship between organizational agility and resilience. **Hypothesis 7 is accepted.**



**Fig.2 Structural Model Path Diagram in PLS**

## Discussion

External environmental changes are one of the biggest challenges faced by SMEs. Changes often occur suddenly, sometimes extremely, so that they can threaten the sustainability of SME businesses. The SME sector is one of the industrial sectors that is vulnerable to change because it does not have structured crisis management and has limited resources to respond to changes that occur. A highly competitive market has increased the importance of organizational agility in achieving competitiveness through strengthening leadership. SMEs must be responsive to changes and opportunities that exist and also continue to innovate in order to maintain the continuity of their business performance (Calvo & García, 2010). When there is a change in the business environment, companies must adapt and try to capture existing opportunities before competitors can achieve them. In SMEs, the role of entrepreneurs is vital because entrepreneurs are involved in all learning activities, efforts, resource distribution activities, and strategic decision-making. The results of this study indicate that in order for businesses to be able to respond quickly and be agile to existing changes through a flexible and adaptive attitude in adjusting to change, special abilities are needed. SME entrepreneurs must have a leadership spirit in order to coordinate every element of their business and adapt quickly. In SMEs, the existing organizational structure tends to be flatter and has a smaller management team compared to large companies (Castrogiovanni, 2002). Leaders with an entrepreneurial spirit will be able to produce fast and effective strategic decisions that can direct the performance of their team in adapting to a dynamic industrial environment. Leaders who have an entrepreneurial spirit will find it easier to influence and guide the performance of their employees and organizations to be flexible and adaptive in responding to change (Renko et al., 2015). Leadership agility means agility in influencing others and making desired changes. Leaders must be able to recognize opportunities that are not seen by others and be able to exploit these opportunities to create value for their company (Renko et al., 2015). Entrepreneurs who are able to obtain high commitment and are able to direct their organizations in achieving opportunities and innovation performance will be able to create higher company value even when the company is faced with changes in its business environment (Karimi & Walter, 2021).

The results of the study also show that entrepreneurial leadership has a positive influence on resilience. Entrepreneurship plays a major role in decision-making and spreading culture among workers through leadership and knowledge. Resilient entrepreneurs are able to take action in difficult times, and they perform better when there are problems and turn them into opportunities. Entrepreneurs, as leaders, must also have the ability to predict and anticipate the risks faced by their businesses so that they can minimize the impact of possible risks (Chen, 2007). Entrepreneurs who are able to obtain high commitment and are able to direct their organizations in achieving opportunities and innovation performance will be able to create higher company value even when the company is faced with changes in its business environment. Leaders who are able to motivate and direct their organizations to be fast and responsive to

change will be able to survive when there is turmoil in the business environment, even when these conditions begin to threaten business performance and direct their organizations to bounce back and rebuild structures after disruptive events (Karimi & Walter, 2021). Resilient entrepreneurs are able to share beliefs, feelings, and a resilient culture with all members of SMEs, which contributes to increasing the success of SMEs. These results are in line with research conducted by Santoro et al. (2020), Branicki et al. (2018) and Bullough and Renko (2013) that entrepreneurial leadership is able to provide confidence to SME members to be able to survive in difficult situations for the success of SMEs, especially in conditions of business world developments that continue to change.

Furthermore, the results of the study also show that agility also has a positive effect on resilience. Changes that are sometimes extreme and radical can threaten the survival of a company's business, so companies need the ability to adapt and be adaptive in order to survive the threats and changes faced by the company (Hayward et al., 2010). (Karimi & Walter, 2021). Agility is the ability to recognize unexpected changes that occur in the environment and respond to them quickly and efficiently by adjusting and reconfiguring the resources it has to adapt to changes and achieve competitive advantage. Agile entrepreneurs will respond quickly to changes in their environment and make decisions quickly and accurately when faced with complex situations, avoid panic easily when faced with unfavourable situations, and understand the conditions of the business they are running (Grand & Bartl, 2019). The ability or agility possessed by entrepreneurs can facilitate the process of exploring and exploiting new strategies and also the process of adopting new configurations in the organization according to the context of changes in the company's external context quickly and precisely through ways that allow new companies to exploit new markets and produce better competitive advantages. The results of this study are in line with research conducted by (Nururly, 2021) that agility supports the resilience of SMEs in the era of digital transformation. Currently, competition in the global business world is changing very rapidly; there is high uncertainty in all fields, such as excessive information and uncertainty that hits. Competition will be even stronger. The current situation is also known as the VUCA situation, which is an acronym for volatility, uncertainty, complexity, and ambiguity.

Further research findings show that agility also helps SMEs to engage better in collaborative activities. In the context of small and medium enterprises, unexpected environmental changes have a significant impact on business continuity (Thorgren & Williams, 2020). Limited resources and capabilities owned by SMEs have an impact on the ability of SMEs to maintain business continuity (Franco et al., 2020). Limited resources and capabilities owned by SMEs make it difficult for SMEs to innovate and expand their market share. Companies need support from external resources in order to achieve a better competitive advantage. When internal resources are considered incapable of meeting company goals, collaborative activities can help SMEs achieve this. Companies that collaborate through the exchange, combination and development of shared resources and capabilities will produce special assets that are difficult to imitate and replace by their competitors (Dyer & Singh, 1998). Agile SMEs will be quicker to identify and have a proactive and creative attitude towards changes that occur so that they will be quicker in adjusting their capabilities and resources in dealing with these changes in order to be able to adapt to changes, including when SMEs need assistance from external parties to improve their quality through collaborative activities (Camarinha-Matos et al., 2009).

Research also shows that collaborative activities can affect the resilience of SMEs. Through collaborative activities, companies can increase their superiority through the exchange, combination and development of resources and capabilities. Together, they will produce special assets that are difficult to imitate and replace by competitors (Dyer & Singh, 1998). Collaborative relationships emphasize the existence of joint exchange and development activities, both in the form of knowledge and resources between companies and collaboration partners (de Almeida et al., 2020). Collaborative activities are one of the activities that can help companies create sustainable innovation so that they can maintain business continuity and superiority in the long term (Miles et al., 2006). Collaboration will increase the company's resilience in the face of unexpected and radical events (Camarinha-Matos et al., 2009). With collaboration, companies can expand their supply chains and market networks without having to continuously develop internal resources and capabilities to respond to change (Dyer & Singh, 1998).

This study also looks at the impact of the indirect relationship of the variables studied. The results of the study show that agility can mediate the influence of entrepreneurial leadership and resilience. The results of this study indicate that SMEs have a fairly good perception of the entrepreneurial leadership possessed by the organization. SME leaders have highly innovative behaviour, manifested in organizational behaviour, forming good structures and mechanisms that can encourage agility in dealing with changing situations so as to produce good resilience for the organization. The results of this study are supported by previous studies, namely Ibrahim and Rashid (2019) and (Khalid, R and Purwana, 2020), showing that there is a significant relationship between entrepreneurial leadership and agility. Research conducted by Gölgeci et al. (2020) and (Nururly, 2021) shows that agility has a significant effect on the resilience of a company.



In addition, the impact of indirect relationships is also shown in testing the relationship between variables between agility and Resilience. The results of the study show that collaboration can mediate the influence of agility and Resilience. Based on the results of this study, the Role of Collaboration as a Mediator between Agility and Resilience is accepted. This is in line with research conducted by Gölgeci et al. (2020), Bouguerra et al. (2021) and (Ozanne et al., 2022) that Resilience and agility are seen as interrelated in organizational capabilities. Resilience is the ability of an organization to capture problems of change while maintaining its integrity. Agility is the ability of an organization to adapt to a competitive environment and respond to the market quickly. So, agility that is collaborated with Resilience can better explain the organizational habits that underlie the sustainability of the organization and the prosperity of the economy amidst change.

## 5. CONCLUSION

The tourism industry in Bali is a very dynamic sector and is the backbone of the regional economy. However, this sector faces major challenges due to rapid, unpredictable environmental changes that often threaten business sustainability. SMEs, as the main supporters of the tourism industry, such as providers of handicrafts, traditional textiles, culinary specialties, and other services, play an important role in maintaining the sustainability of this sector. However, limited resources and unpreparedness in facing change make it difficult for many tourism SMEs to survive, especially when facing major shocks such as a pandemic or changes in tourist preferences.

This study makes a significant contribution to the tourism sector in Bali by exploring the determinants of SME resilience in facing the dynamics of the industrial environment. The results show that the resilience of SMEs in the tourism sector cannot be separated from the role of strong entrepreneurial leadership. Tourism SME entrepreneurs who have leadership are able to direct the organization to act quickly in the face of change, motivate employees to seek new opportunities and respond to challenges through product or service innovation that suits the needs of tourists.

In addition, this study highlights the importance of developing organizational agility in tourism SMEs, which allows them to quickly reconfigure resources, explore new markets, and strengthen their supply chains. This agility is crucial to deal with the highly dynamic fluctuations of the tourism market.

This study also provides practical insights into the importance of collaboration with external parties, such as other industry players, the government, and digital platforms, as a strategy to overcome the limited resources of tourism SMEs. This collaboration not only opens access to information and resources that SMEs need to have but also accelerates their adaptation to change without having to create solutions independently, which require large costs.

Thus, this study not only provides an academic contribution in identifying key factors for SME resilience but also provides practical guidance for SME actors in the Bali tourism sector. The findings of this study confirm that the resilience of tourism SMEs is highly dependent on the ability of entrepreneurs to lead, innovate, and collaborate so that they can support the sustainability of the Bali tourism sector in facing challenges and changes in the future.

## 6. LIMITATION AND FUTURE RESEARCH

Despite its contribution, this study also has limitations in its implementation. This study was conducted in the SME sector operating in Bali, so the results of the study cannot be generalized convincingly to other industries or countries that have different characteristics and cultures. Therefore, this research model should be tested in further research targeting larger samples from various sectors, countries and other regions to confirm this.

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