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The role of innovation strategies in mediating covid-19 perceptions and entrepreneurship orientation on *Endek* weaving craft business performance

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ABSTRACT

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This study aims to examine the role of innovation strategies in mediating Covid-19 perceptions and entrepreneurial orientation on the performance of *endek* weaving craft business in Bali Province. The theoretical basis used is RBV (Resources Based View) which argues that each company has varying resources with differences in resulting performances. The test was carried out by quantitative analysis using a Structural Equation Model (SEM) based on Partial Least Square (PLS). Data were collected from 139 MSME of *endek* weaving craftsmen. The results of testing the effect of Covid-19 perceptions and entrepreneurial orientation on business performance were insignificant. Meanwhile, those on innovation strategies and entrepreneurial orientation were positively significant. The results of testing the effect of innovation strategy on business performance and collaboration between the government and the private sector in moderating the innovation strategy on business performance were positively significant and insignificant. The results of testing the effect of innovation strategies mediating Covid-19 perceptions on business performance and mediating entrepreneurial orientation on business performance were positively significant. The study actually confirms that the innovation strategy is a strong mediating variable to bridge the relationships between entrepreneurial orientation variables, Covid-19 perceptions, and business performance. The collaboration between the government and the private sector is also an insignificant moderator to achieve the business performance of MSME actors.

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1. Introduction

MSME business performance was affected during the Covid-19 pandemic, and this led to the stagnation of the economic cycle. Its achievement was far from maximal due to an unstable economy that required assistance. Based on the data acquired from Bank Indonesia (2020), apart from supporting the country in times of crisis, relatively 99% of MSMEs have been proven to be a dominant sector of the nation, because it absorbs 97% of the workforce. The Covid-19 pandemic had a negative impact on the economy, both at the global and national levels. Besides from the home front and MSMEs, several other sectors were significantly affected namely transportation, tourism, trade, health, etc. *Endek* weaving craft SMEs in Bali Province were also affected by the pandemic. Various weave types such as *Cepuk*, *Endek*, *Songket*, and *Geringsing* are Balinese cultural heritage. Therefore, this study focuses on *Endek* weaving craft SMEs. The crisis greatly affected MSMEs in three ways, namely, it directly changed production and demand, supply chain, and market disruptions, including financial aspects of the company (Spicer, 2020). A large number of MSMEs were closed or operated with a reduced workforce. The impact was enormous, and hugely affected the ability of this business type to seek social support, strong leadership, as well as develop economic resilience (Khurana *et al.*, 2021). According to Galbreath *et al.* (2019), the relationship between the MSME actors' perception of the pandemic and their business performance is closely related to competitive strategy and innovation to ensure sustainability. The relationship between entrepreneurial orientation and MSME business performance is strongly influenced by certain considerations related to the execution of innovation strategies. This study was carried out on the weaving craft

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SMEs, which during the 2 years of the pandemic experienced a drastic decline in all their business endeavors. The RBV (Resources Based View) theory was adopted as the basis for resources to be efficiently and effectively managed. Practically, it was used to calculate the probably sustainable management in accordance with business strategies. This study further adopted the theory of dynamic capabilities, as a supporting hypothesis with the innovation strategy used as an important variable when analyzed. This viewpoint tends to integrate the company's ability to build and reconfigure internal and external competencies to deal with a rapidly changing environment. Dynamic capabilities reflect an organization's capability to achieve new and innovative forms of competitive advantage. One of the important internal characteristics of MSMEs' is the adoption of an innovation strategy to enable them to survive during critical circumstances such as the Covid-19 pandemic. Previous studies failed to focus on the importance of this variable during a crisis. An in-depth understanding of innovation strategy with its various dimensions is important in terms of discovering its capacity to relate with other variables (Yasa et al., 2016; Christa & Kristinae, 2021). Seo (2019), for example, specifically explored the strategy adopted by MSMEs during the Covid-19 pandemic, namely technological and product innovations as well as its impact on business performance. It was reported that a significant relationship exists between these 2 variables. Meanwhile, a study carried out by Okundaye et al. (2019), convincingly revealed that MSMEs that were able to take advantage of information technology and its application to the business world experienced positive growth during the pandemic. This innovation strategy substantially paved the way for these businesses to survive the crisis period. This study revealed that MSME groups that adapted to information technology were exposed to wider opportunities in terms of creatively managing their businesses. To accelerate the role of innovation strategies to improve business performance requires government and private sector collaboration. This is because its impact involves exposure to various programs such as designing appropriate training and joint promotion activities that increases efficiency and competitiveness, productivity, improve product quality, reduce production, as well as study and development costs, and prevent supply fluctuations. The government-private collaborative partnership also portrays togetherness and equality. Preliminary studies aimed to create MSME business resilience. Previous studies on MSME business performance did not focus on innovation strategies. They also failed to contextually analyze Covid-19 perceptions and entrepreneurial orientation that affects MSME business performance.

2. Literature Review and Hypotheses

2.1 Effect of Covid-19 perception on business performance

It was revealed that Covid-19 perceptions had a great influence on various fields or sectors. Business performance was severely disrupted, and this led to its continuous fluctuation. The MSME sector was significantly affected by the pandemic. The study carried out by Kehan et al. (2020) stated that the Covid-19 had a significant negative impact on the business performance of MSMEs in China. It was argued that the registered companies reduced the scale of investment and their total income. For the tourism, catering, and transportation industries, a significant decline in performance was recorded in the first quarter of 2020. The pandemic had a negative impact on the production, operations, and sales department of these establishments. The relationship between Covid-19 perception and business performance is also related to the MSMEs' characteristics. According to the Ministry of Education et al. (2020), various MSMEs responded differently in respect to its heterogeneity. This led to the exhibition of different levels of sensitivity towards the disruption caused by Covid-19. First, MSMEs are inhomogeneous considering that this sector includes micro, small and medium enterprises and the ability to take size into account is important, as it drives the availability of resources. They are also inhomogeneous in respect to age, for instance, older companies are more experienced, have larger networks, and are perceived as more credible by stakeholders. Furthermore, MSMEs are inhomogeneous when viewed from the legal perspective, and in this situation, attention is drawn to the possible differences related to the SMEs and the associated financial liability of business owners (Wieczorek-Kosmala et al., 2021).

Hypothesis 1: *Covid-19 perceptions has a negative and significant impact on business performance.*

2.2 Effect of entrepreneurial orientation on business performance

The effect of entrepreneurial orientation on business performance is directly related to the views of MSME owners and managers in respect to developing their competencies. It is defined as a set of knowledge to develop the superior business performance of a particular venture. During the pandemic, entrepreneurship orientation had to trigger the improvement of certain competencies to excel in performance. Therefore, entrepreneurs' skills are expected to facilitate company performance and economic growth. It is important to identify other capabilities used to predict business success, undoubtedly, entrepreneurial orientation is one of the relevant factors that integrate, builds, and reconfigures external and internal competencies to cope with the rapidly changing environment. This attribute was generally discovered to have a positive effect on performance (Caseiro & Coelho, 2018). Radulovich et al. (2018), stated that entrepreneurial orientation is the main determinant of business growth and performance. It allows MSME owners and managers to outline a possible vision for achieving improved business performance. Entrepreneurial orientation assists in exploring the innovative capabilities of organizations and moderating the relationship between knowledge-based resources and firm performance. Increasing efficiency and optimizing the resilience of business performance against disruptions are important steps that need to be considered. This reduced the shock felt by stakeholders during the pandemic. Specifically, the concentration of industrial capacity and economic activities in smaller and more efficient sectors, on an international level, has resulted in highly profitable, although fragile supply chains, and exchanges which disruption tend to have significant effects on unexpected areas (Xu et al., 2020).

Hypothesis 2: *Entrepreneurial orientation has a positive and significant effect on business performance.*

2.3 Influence of Covid-19's perception on innovation strategy

The MSMEs actors' perception of Covid-19 has various impacts on businesses, specifically small and medium enterprises. It has serious implications, specifically during a volatile situation, and the worst is the uncertainty of supply and demand (Gong et al., 2020). MSMEs adapt to such circumstances by maintaining and improving their business operations and performances. The crisis caused by the pandemic had a major impact on the level of trust between business owners and their consumers (Donthu & Gustafsson, 2020), in addition, it exhibited some sort of pressure. These businesses are expected to develop the ability to adapt to the situation by implementing changes within a short time as well as employing an appropriate workforce. One of the reasons behind the failure of these MSMEs was since the workforce was considered ineffective in their ability to render service or provide certain products to their respective consumers. Previous studies stated that the pandemic had a negative impact on the unicorn business. On the contrary, the digital innovation model had a positive effect on unicorn business performance and positively moderates the impact of Covid-19. The unicorn company focused on creating new partnership networks, including outsourcing services, payment flexibility, adaptability of logistics processes, ability to attract external investment, and strong digital enhancement of internal operations. Although the majority of these firms have a technology base, the pandemic caused them to engage in digital transformation and increase the capacity of their innovation strategies. Companies or SMEs were expected to improve their competencies during the crisis, and according to Rodrigues (2020), this is realized through digitization.

Hypothesis 3: *Covid-19 perceptions has a positive and significant impact on innovation strategy.*

2.4 Effect of entrepreneurial orientation on innovation strategy

Wijayanto and Sanaji (2021) reported that the entrepreneurial orientation of MSMEs plays an important role in creating marketing innovation strategies. This does not necessarily promote business performance, specifically advertising. Organizational creativity generates ideas related to marketing innovations that lead to the improvement of products, prices, and adopted methods. However, its influence on business performance is bridged by marketing innovation. The adoption of innovation strategies, specifically in this field, improves both marketing and MSME business performances through advertising channels such as selling online through an intermediary, wholesale, or reseller agents. The existence of an innovation strategy and marketing increases business sales and delivers them from adversity. The MSMEs case in China shows that SMEs effectively promote innovation that contributes to long-term growth. These 2 constructs revealed that its resonance is to improve business performance. The adopted innovation strategy continuously sought creative solutions to certain problems. MSME owners and managers are constantly searching for tools to boost sales such as the use of social media or other internet platforms. The business performance is determined by their ability to actively adopt these innovations. The real challenge faced by MSMEs is centered on the improvement of the entrepreneurial orientation model and innovation strategy that ensures the potential of all variables is fully utilized. It is important to pay attention to government policy interventions, specifically those related to proactive behavior and risk-taking. These two constructs of entrepreneurial orientation have a tremendous impact on MSME business performance (Kee & Rahman, 2020).

Hypothesis 4: *Entrepreneurial orientation has a positive and significant impact on innovation strategy*

2.5 Influence of innovation strategy on business performance

The innovation strategy has a significant influence on business performance, and this developed by introducing effective methods that ensure the products reach their consumer base. The relationship between these 2 variables is strongly influenced by one of the hierarchies found in MSMEs. The adopted innovation strategies contribute differently to small and medium enterprises. This means that product innovation ability aids to determine the direct relationship between the business performance of small and medium enterprises (Yasa et al., 2016; Liu & Wang, 2020). The relationship between innovation strategy and business performance is also related to technology, which has both positive and negative impacts. According to Guo et al. (2020), innovation strategy is relevant and plays an important role in the scope of MSMEs. It also deals with the shortage of available resources, for example, finance, labor, and raw materials for their respective business operations (He et al., 2020). The innovation strategy is directly related to business performance because it increases the prospects of small and medium enterprises thereby, ensuring the survival of MSMEs. It is also perceived as an indicator of business performance, while the other is profitability, company growth, and the stability of the market economy (Shen et al., 2020).

Hypothesis 5: *Innovation strategy has a positive and significant impact on business performance*

2.6 The role of government and private collaboration in moderating the influence of the innovation strategy on business performance

The moderating variable for collaboration between the government and the private sector stems from the fact that MSMEs need the help of external groups, therefore, the collaborative role of the government and the private sector is important. It demands efficiency, productivity, product quality improvement, reducing production, study, and development costs, preventing supply fluctuations, and increasing competitiveness. The government-private collaborative partnership also exhibits togetherness and equality. From a socio-political point of view, it prevents social inequality, jealousy, and socio-

political turmoil. This benefit tends to be achieved as long as the partnership is based on the principles of mutual reinforcement, needs, and benefits, referring to the problems faced. Preliminary studies on the collaboration between the government and the private sector are aimed to create MSME business resilience, generally interpreted as a form of unit capacity to bounce back from difficulties and failures. This strategy is then assumed to also apply to MSMEs, and of course, this is incorrect. Afterward, many findings tried to analyze its resilience system as facing various crises. This collaboration is important to bridge the complexity of the internal conditions of MSME management coupled with unfriendly external factors that makes the problem even more complicated. The government, the private sector, and other stakeholders lack synergy and are jointly committed to the advancement of MSMEs.

Hypothesis 6: *The collaboration between the government and the private sector plays a significant role in moderating the influence of the innovation strategy on business performance*

2.7 *The role of innovation strategy in mediating Covid-19 perceptions on business performance*

The study carried out by Seo (2019) reported that the adopted innovation strategy during the Covid-19 pandemic was decisive in increasing or decreasing business performance. This study specifically pays attention to certain indicators, namely technological, and product innovation as well as sales growth. It was reported that a significant relationship exists between entrepreneurial orientation and technological and product innovation. Conversely, a linear correlation exists between entrepreneurial orientation and sales growth. In addition to these dimensions, the study question is on the kind of innovation strategy needed to improve MSME business performance during the pandemic. Previous studies stated that companies that were able to utilize information technology during the crisis period experienced positive growth (Okundaye et al., 2019). This is because the management employed web or online-based applications (Okundaye et al., 2019; Prashar, 2019). MSME groups that can adapt to information technology are exposed to opportunities including creatively and innovatively managing their businesses (Fitriati et al., 2020), thereby enabling their management abilities to be tested when faced with uncertainties (Battistella et al., 2020). For this reason, ownership of conceptually competent managerial knowledge also provides adaptive capabilities in respect to every change that occurs (Domi et al., 2019), and in turn, innovative processes also have an impact on effective and efficient performance (Sawaeen & Ali, 2019).

Hypothesis 7: *The innovation strategy plays a significant role in mediating the perceived influence of Covid-19 on business performance*

2.8 *The role of innovation strategy mediates the effect of entrepreneurial orientation on business performance*

An innovation strategy is defined as a business model that leads to new ways of doing things. It ensures that the organization does not fall into the trap of following accepted procedures with rigid administrative patterns. Conventional strategies are still dominant and are at risk of being imitated by business competitors. The innovation strategy has specific goals and is focused on exploring the uniqueness of the organization. Efforts to explore the resources require identification and development. The entire situation is driven by a focused organizational framework and program plan (Al-Qershhi et al., 2021). Strategic innovations developed by these firms and MSMEs greatly affect the improvement of organizational efficiency by using effective human resources. In contemporary business, it is critically shaped, in terms of delivering effective and efficient performance. Previous studies on MSME business performances failed to focus on innovation strategies and contextually it was affected by Covid-19 perceptions. Conceptually, this study succeeded in relating the pandemic to business performance. During the pandemic, MSMEs were promoted to embrace innovation strategies to survive (Christa & Kristinae, 2021). This aids them because they play an important role in the economy and contributes to increasing the income and welfare of the community. The industrial era 4.0 and the Covid-19 experience was the right momentum that caused stakeholders to focus more on educating the general public to be more familiar with information technology and other applications in managing their businesses. An important part of this effort activates the intellectual resources to be optimized. The goal is to ensure that the MSME community and creative industries are able to adapt and eventually became familiar with the use of information technology. Intellectual resources are potential capital for knowledge ownership to be able to properly manage their businesses as well as to adapt to changes (Vasquez et al., 2019).

Hypothesis 8: *Innovation strategy plays a significant role in mediating the effect of entrepreneurial orientation on business performance*

2.9 *Theoretical Framework*

This study indicates that the variables that affect the business performance of SMEs associated with weaving craft in Bali Province are Covid-19 perceptions, entrepreneurial orientation, innovation strategy, and its influence on business performance moderated by the role of government and private sector collaboration. The relationship between these variables was built based on the theories of RBV (Resource Based View), dynamic capabilities (Teece & Pisano, 1994; Covin et al., 2019) and business strategies (Porter, 1980, 2008). The argumentation basis of the RBV theory starts with the criticism of the industrial organization perspective which emphasizes that the competitive advantage of a company is highly dependent on its external factors. However, the industrial organization perspective is not able to explain the reason many companies perform differently. The RBV theory answers this phenomenon by arguing that it is based on the fact that each establishment has different resources. According to this perspective, a firm's competitive advantage depends on heterogeneous resources spread across the organization. The main basis of RBV is further combined with the argumentation of the Dynamic

capabilities which view the company as a stock to generate productive knowledge. This theory emphasizes the role of resources in the context of change and the company's ability to reconfigure and take advantage of them. Meanwhile, business strategy refers to the entrepreneurs' capabilities to analyze the company's external and internal environments, formulate strategies, implement plans designed to achieve set goals, and carry out evaluations to get feedback in accordance with the formulated strategies. The conceptual framework is based on study gaps, hypotheses, and theoretical arguments.

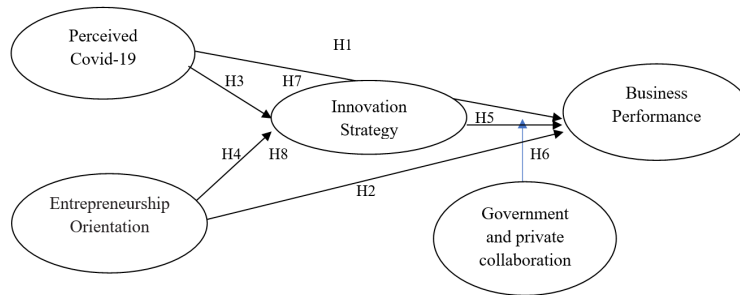


Fig. 1. Study Concept Framework

3. The proposed study

A quantitative approach based on statistical analysis and a structural equation model based on Partial Least Square (PLS) is used to test the hypotheses. The scope of this study is centered on the owners and managers of *endek* weaving SMEs in 7 districts in Bali and constituted the study population. The sample size is 139 *endek* weaving MSME businesses, that have been registered for a minimum of 5 years and have a business capital of 5 to 500 million, the selected actors are within the productive age of 20 to 50 years and have a workforce or craftsmen of approximately 5 to 10 craftsmen.

4. The results

This study tested eight hypotheses, using PLS-SEM analysis consisting of two sub-models, namely the measurement often called the outer model and structural or inner model (Hair et al., 2014).

Table 1
Validity and Reliability Tests

Variable Notation	Dimension	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
Perceived Covid-19	(PC)	0.93	0.95	0.66
	BC	0.87	0.92	0.79
	DC	0.79	0.88	0.7
	ATC	0.78	0.87	0.68
Entrepreneurship Orientation	OKA	0.97	0.97	0.66
	INO	0.82	0.89	0.73
	RT	0.88	0.93	0.81
	PRO	0.87	0.92	0.8
	CA	0.86	0.91	0.78
	AUTO	0.87	0.92	0.79
	JH	0.87	0.92	0.79
Innovation Strategy	SI	0.93	0.94	0.61
	IPK	0.82	0.89	0.74
	IPS	0.79	0.88	0.71
	US	0.8	0.88	0.72
	KP	0.91	0.9	0.84
The Role of Public and Private Collaboration	PKPS	0.91	0.92	0.6
	PKDSM	0.75	0.86	0.67
	PKDSPE	0.81	0.89	0.72
	PKDSPP	0.75	0.86	0.67
Business Performance	KB	0.91	0.92	0.6
	PV	0.85	0.91	0.77
	PP	0.87	0.92	0.8
	PPB	0.82	0.89	0.74
	PPA	0.74	0.88	0.79

It was further explained that the measurement model shows how the manifest or observed variables represent the latent ones to be measured. The structural model shows the estimation power of the latent variables or constructs. The statistical test results of the influence between factors (Estimate for Path Coefficients) are the significance of the path coefficient values

which indicate the strong influence of exogenous constructs on endogenous development, completed by the Bootstrap procedure in the Partial Least Square (PLS) program application.

Table 2
Results of direct hypothesis testing

Hypothesis	Original	Sample	Standard Deviation	T-Stat.	p-	Conclusion
	Sample	Mean	(STDEV)	(O/Stdev)	Values	
Perceived Covid-19 → Business Performance	-0.061	-0.162	0,070	2.287	0,023	Significant
Entrepreneurship Orientation → Business Performance	0.172	0.174	0.069	2.496	0.013	Significant
Innovation Strategy → Business Performance	0.411	0.41	0.068	6.075	0,000	Significant
Perceived Covid-19 → Innovation Strategy	-0.059	-0.063	0.08	0.739	0.46	Not
Entrepreneurship Orientation → Innovation Strategy	0.481	0.485	0.08	6.016	0	Significant

Table 3
Results of indirect hypothesis testing

Hypothesis	Original	Sample	Standard Deviation	T-Stat.	p-	Conclusion
	Sample	Mean	(STDEV)	(O/Stdev)	Values	
Innovation Strategy * The Role of Public and Private Collaboration	-0.086	-0.077	0.047	1.848	0.065	Not Significant
Perceived Covid-19 → Innovation Strategy → Business Performance	0.125	0.132	0.050	2.497	0.013	Not Significant
Entrepreneurship Orientation → Innovation Strategy → Business Performance	0.201	0.199	0.047	4.277	0.000	Significant

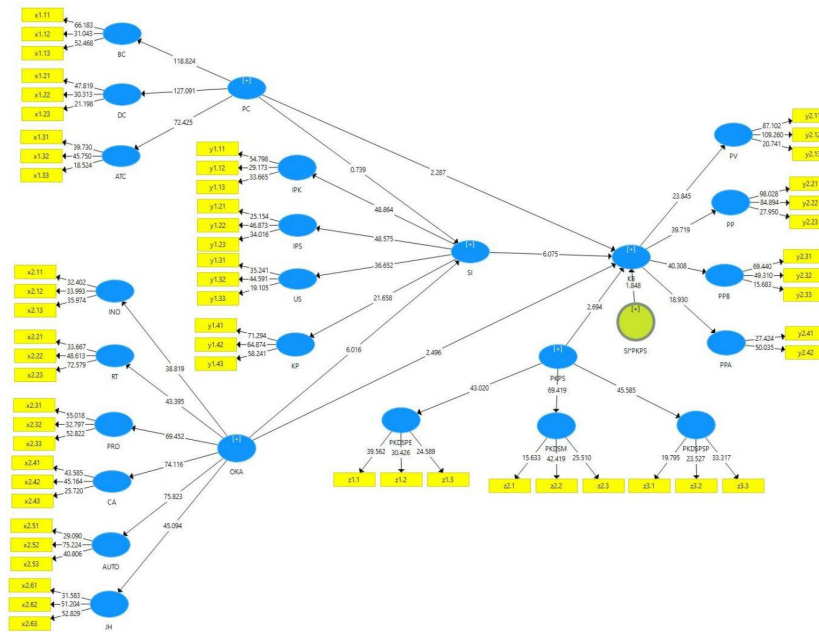


Fig. 2. Study Results using SEM-PLS

According to hypothesis 1 (H1), Covid-19 perceptions (X1), has a significant effect on business performance (Y), thereby leading to in a negative path coefficient of -0.061 with a t-statistic value of 2.287 < 1.96 and a probability of 0.023 (level significance < 0.05). The test results on hypothesis 2 (H2), namely entrepreneurial orientation (X2), has a significant effect on business performance (Y), thereby leading to a positive path coefficient of 0.172 with a t-statistic value of 2.496 > 1.96 and a probability of 0.013 (significance level < α 0.05). The test results for hypothesis 3 (H3), has a negative and insignificant influence on the innovation strategy (M), thereby leading to a negative path coefficient of -0,059 with a t-statistic value of 0,739 > 1.96 and a probability of 0.460 (significance level < 0.05). The test results on hypothesis 4 (H4), namely entrepreneurial orientation (X2) has a positive and significant influence on innovation strategy (M), thereby leading to a positive path coefficient of 0.481 with a t-statistic value of 6.016 > 1.96 and a probability of 0.00 (level significance < 0.05). The test results on hypothesis 5 (H5), namely the innovation strategy (M) has a significant and positive effect on business

performance (Y), thereby leading to a positive path coefficient of 0.411 with a t-statistic value of $6.075 > 1.96$ and a probability of 0.000 (significance level $< \alpha 0.05$). The sixth hypothesis (H6) stated that the government and private sector collaboration plays an insignificant role as moderating innovation strategy in terms of boosting the business performance of weaving SMEs in Bali Province. The test results show that this variable was found to weaken the influence of the innovation strategy on business performance. The testing on hypothesis 7 (H7) states that the innovation strategy mediates Covid-19 perceptions on business performance is negative and insignificant with original sample value is -0.024 and p-value 0.466. Testing on hypothesis 8 (H8), states that the innovation strategy has a significant and positive effect in mediating entrepreneurial orientation on business performance with an original sample value of 0.198 and p-value of 0.000. Testing on hypothesis 7 (H7), states that the innovation strategy unmediated Covid-19 perceptions on business performance. The direct effect of Covid-19 perceptions on the innovation strategy has a coefficient of 0.736 and the t-statistic value is smaller than 1.96, therefore, it was declared insignificant. Testing on hypothesis 8 (H8), states that the innovation strategy has a significant and positive effect in mediating entrepreneurial orientation on business performance. The direct effect of entrepreneurial orientation on innovation strategy has a coefficient of 0.198 and a t-statistic value of 4.180 which is greater than 1.96, therefore, it was declared significant.

5. Discussion

The testing results of the impact of Covid-19 perceptions on business performance showed a negative and significant effect. This indicates that the pandemic significantly affected the business performance of SMEs in weaving handicrafts. The impact of the Covid-19 pandemic is related to the following: First understanding of MSME actors towards several indicators, such as information related to the dangers caused by the pandemic. Second, is associated with the public's perceptions related to its effects in various fields, specifically SMEs associated with *endek* woven fabrics. Third, adaptation such as the effort or strategy employed to survive during the pandemic. This perception is closely related to MSME transformation efforts to adapt to the Covid-19 situation (Kement *et al.*, 2020; Lu *et al.*, 2020). Entrepreneurial orientation has a positive and significant effect on business performance, and this indicates a strong relationship. Furthermore, it depicts that this variable has a positive influence and can improve SMEs' business performance during the pandemic. The results obtained stated that entrepreneurial orientation played a significant role during the crisis, and it strongly affected the business performance of SMEs. This was further strengthened by the interview results obtained in the field which illustrated the desire of weaving craftsmen to continuously discover ways to survive during the pandemic. The relationship between entrepreneurial orientation and business performance is related to the views of SMEs owners and managers in developing their competencies. This was imperative specifically during the pandemic to boost their business performance (Caseiro & Coelho, 2018; Casalino *et al.*, 2020; Covin *et al.*, 2019). The test results of the Covid-19 perceptions on innovation strategies showed a negative and insignificant impact. This indicates that it has a huge influence on SMEs associated with weaving handicrafts. The uncertain situation caused by the pandemic, coupled with the cessation of economic activity, also brought the marketing of these woven handicrafts to a halt. During the crisis, MSME craftsmen carried out limited production activities and were unable to make a profit due to the absence of sales. Covid-19 perceptions had a serious impact on the business owners' confidence, the environment is still considered as a volatile situation, and the worst is the uncertainty associated with supply and demand. This is in line with Gong *et al.* (2020), that the pandemic had a major impact on the level of trust that occurred in business enterprises and their consumers (Donthu & Gustafsson, 2020). It was reported that entrepreneurial orientation had a positive and significant impact on innovation strategies. This indicates that it is an important factor based on the fact that Covid-19 perceptions has a large influence on weaving handicrafts SMEs in terms of creating an innovation strategy. This is in line with previous studies carried out by Poernomo (2020), that entrepreneurial orientation is the basis for MSME actors to develop themselves, including innovation strategies and business performance. The crisis situation increasingly destroyed the performance of these MSMEs. The inconsistent results obtained in this study show that entrepreneurial orientation is personally determined by MSME actors that are also affected by various influences from other variables. Therefore, a mediator is needed to strengthen its relationship with business performance. Following this proposition, several studies identified diverse possible impacts of entrepreneurial orientation on other factors (Covin *et al.*, 2019). These are related to the ability to employ innovations during the Covid-19 pandemic. Another factor is the external environment and the socio-cultural characteristics of SMEs. This is related to the role of the government and the private sector in supporting the development of MSMEs (Chitsaz, *et al.*, 2019; Poernomo, 2020).

The test results showed that innovation strategy had a positive and significant effect on business performance. This indicates that it is an important factor in creating business performance. This is in line with previous studies carried out by Christa and Kristnae (2021), Socialbakers (2020), Lamba (2020), and Moore *et al.* (2019) that innovation strategy has a significant influence on business performance. It plays a vital role in boosting company performance. The innovation strategy is one of the most important variables and always appears in the RBV theory which is considered necessary for MSME actors to develop themselves towards sustainable business performance. This is consistent with previous studies carried out by Battistella *et al.* (2020), Sawaeen and Ali (2020), Domi *et al.* (2019), Okunda *et al.* (2019), and Prashar (2019). The test results showed that the collaboration of the government and private sector as moderating variables implies that innovation strategy has a negative and insignificant effect on business performance. This indicates that this factor does not have a positive impact on SMEs associated with weaving crafts during the pandemic. Various aids and programs were intensively carried out during this season. This is a form of concern and commitment from the government and the private sector in protecting

MSMEs in a crisis period. The results of this study are in line with Huynh (2021), that government and private interventions were only sectoral and not comprehensive. Besides, this collaboration is also only temporary and not sustainable. The government was unable to assist all MSMEs, and not all that were helped survived. Huynh (2021) convincingly stated that public and private aid is only significant for a few sectors namely health care, metals and mining, materials, and resources. The results showed that all industries that had benefited from the government's financial assistance were protected or the impacts faced were less severe (Huynh, 2021).

The test results showed that the mediating role played by innovation strategies proved that Covid-19 perceptions had a negative and insignificant effect on business performance. This shows the influence of the innovation strategy in mediating Covid-19 perceptions on business performance. It was interpreted that the innovation strategy employed by SME actors failed to increase the impact of COVID-19 perceptions on business performance. This is inseparable from the direct influence which has a significant effect in inhibiting or reducing SMEs' business performance. It is also in accordance with Zhiwen et al. (2021), that the concept of innovation strategy developed by SMEs does not necessarily have a positive effect on business performance. However, it was argued that although SMEs are considered a vital sector in many developing countries, the sustainability of its growth experienced significant difficulties during the pandemic. This proves that the innovation strategy does not necessarily strengthen business performance during a crisis period.

The test result showed that the mediating effect of innovation strategy between entrepreneurial orientation and the business performance had a positive and significant impact. It simply indicates that this variable plays a central role in strengthening the relationship between entrepreneurial orientation and business performance. Innovation strategy is important because it triggers effective and efficient performance. Previous studies on MSME business performance failed to focus on this variable and contextually stated that Covid-19 perceptions affected business performance. The results of this study further emphasized the importance of innovation strategies during the pandemic to maintain the sustainability of MSMEs (Christa & Kristinae, 2021).

6. Conclusion

The test results of the impact of Covid-19 perceptions on business performance showed a negative and significant effect. It indicates that this variable significantly affected the business performance of weaving handicrafts SMEs and led to its halt. Entrepreneurial orientation has a positive and significant impact on business performance. This indicates that it has a strong relationship with business performance. The Covid-19 perceptions had a negative and insignificant effect on innovation strategies. This indicates that the pandemic has a huge influence on SMEs associated with weaving handicrafts in creating an innovation strategy. The test results showed that entrepreneurial orientation had a positive and significant effect on innovation strategies. It implies that this variable is an important factor in that Covid-19 perceptions had a huge influence on this sector. Based on the test analysis innovation strategy has a positive and significant effect on business performance. This shows that it is an important factor in creating business performance. The collaboration of government and private sector as a moderating variable shows that innovation strategy has a negative and insignificant effect on business performance. It depicts that this variable does not have a positive impact on SMEs associated with weaving crafts during the pandemic. The test results of the innovation strategies as a mediator showed that Covid-19 perceptions had a negative and insignificant effect on business performance. This proved that the influence of the innovation strategy in mediating Covid-19 perceptions on business performance is neither mediating nor significant or unmediated. Based on the analysis, the mediating effect of innovation strategy depicts that entrepreneurial orientation had a positive and significant effect on business performance. This shows that it has a significant and positive impact in mediating entrepreneurial orientation on business performance.

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