

## The role of innovation capability in mediation of COVID-19 risk perception and entrepreneurship orientation to business performance

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### ABSTRACT

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The purpose of this study is to explain how innovation capability influences business performance by mediating the effect of Covid-19 risk perception and entrepreneurial orientation. This study's population consists of MSMEs in Bali's tourism and creative industries. Purposive sampling was utilized to choose 90 managers of MSMEs in the tourist and creative economy sectors. Path Analysis with SEM-PLS was employed as the analytical approach. The findings revealed that the COVID-19 Risk Perception had a negative and significant impact on business performance, but the Entrepreneurship Orientation had a positive and significant impact. Furthermore, COVID-19 Risk Perception had a negative and significant impact on Innovation Capability; while the Entrepreneurship Orientation had a positive and significant effect on Innovation Capability; and Innovation Capability had a positive and significant impact on business performance. In addition, Innovation Capability was able to mediate the influence of COVID-19 Risk Perception and Entrepreneurship Orientation on business performance. Therefore, it is important for MSMEs in the tourism and creative economy sectors in Bali to improve their Entrepreneurship Orientation so that they are able to build higher innovation capabilities in order to improve business performance in facing the risks of the COVID-19 pandemic.

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### 1. Introduction

The COVID-19 epidemic has had a substantial impact on micro, small, and medium-sized businesses (MSME). COVID-19 has had a significant influence on MSMEs in the tourism sector and the creative economy in Bali Province (Bae et al., 2020). Because MSMEs in the tourism industry and the creative economy rely substantially on government rules governing tourist travel prohibitions, this sector is extremely vulnerable to the negative effects of COVID-19. Because business players in this sector rely on nations affected by COVID-19, these MSME actors are extremely vulnerable to COVID-19. The COVID-19 pandemic is an unpredictable element for businesses, putting additional strain on MSME operations. The variables that create dangers arise one by one and must be considered by MSME enterprises. Perception of risk refers to a person's instinctive assessment of the hazards they encounter or may face, including the numerous negative consequences that individuals identify with certain causes (Bauer, 1960). As a result, MSMEs, particularly those in the tourism and creative economy sectors, must manage this risk in their daily operations. Several studies have been undertaken to investigate the influence of COVID-19 risk perception on travel behavioral intentions (Belas et al., 2021), environmental awareness (Brug et al., 2004), and online buying behavior during COVID-19 (Chi, 2021). Several previous empirical studies found that there was a negative relationship between the pandemic on the performance of companies (Cori et al., 2020), banking (Dabic et al., 2018), and MSMEs (Faradila, 2021); and there is also research by Giantari et al. (2022), showed that the perception of the COVID-19

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pandemic had no effect on business performance. Entrepreneurship is critical in improving the competitiveness of micro, small, and medium-sized firms (MSMEs), particularly during the COVID-19 pandemic. Individual and environmental factors influence the success of small businesses. Business players, in particular, must have a strong entrepreneurial attitude and certain abilities. Several studies have been conducted on the relationship between entrepreneurial orientation and business performance (Feranita and Setiawan, 2019; Fihartini et al., 2021; Kozak, 2021), including demographic characteristics, psychological and behavioral characteristics, and human capital characteristics. Individual personality traits and competence in the entrepreneurial process are examples of these abilities, which will have an influence on MSME performance. Migdadi (2021), Mohammad et al. (2021), and Mulyana et al. (2020) discovered contradictory results, finding that entrepreneurial attitude had no significant influence on firm performance. This demonstrates that entrepreneurs' entrepreneurial orientation is insufficient to achieve exceptional firm performance. The Resource Based View technique will be utilized to fill the current gap (RBV). The qualities and competencies created by the corporation determine the long-term success of any organization (Mustari et al., 2021). Entrepreneurs must be able to innovate in order to meet the obstacles that come with this risk. Based on this, the solution offered in relation to the research gap is to use the innovation capability variable as a mediating variable. However, research on the impact of COVID-19 risk perception from the point of view of MSME actors and entrepreneurial orientation associated with the company's innovation capability is still scant. The business phenomenon and the gap in the results of this research become an interesting research gap to be studied further for research development. The phenomenon gaps and previous research gaps are important reasons for conducting investigations as well as developing a COVID-19 risk perception model and entrepreneurial orientation that is linked to the innovation capability and performance of MSMEs in the tourism and creative economy sectors in Bali Province. Based on the current challenges, the goal of this study is to investigate and explain the role of innovation capability in mitigating the impact of COVID-19 pandemic risk and Entrepreneurship Orientation on the business performance of MSMEs in the tourism sector and the creative economy in Bali.

## 2. Literature review

### 2.1 COVID-19 risk perception

COVID-19 is a pandemic that has hit the whole world and has had a huge impact on the countries that are exposed to it. Countries are forced to adopt quarantine measures due to the extremely high infectious nature of COVID-19 (Cori et al., 2020). On the other hand, several countries have imposed restrictions to prevent the transmission of the virus, which has hit businesses in the tourism sector very hard. Risk perception is seen as an assessment of the value associated with an uncertain situation arising from a particular risk. Risk perception includes two dimensions (Najafi-Tavani et al., 2018): cognitive and affective. The cognitive dimension is concerned with an individual's perceived sensitivity to risk and its severity, whereas the emotional dimension is concerned with people's worry about their risk exposure. The risk perception of the firm is seen as an appraisal of the hazards inherent in a circumstance (Purwanto & Trihudiyatmanto, 2018). MSMEs in the tourist and creative economy sectors will feel the uncertainties and unpredictability of the COVID-19 epidemic as it applies to their company operations. The perceived risk of COVID-19 is measured by the indicators adopted in Tajafi-Tavani et al., (2018): (1) Worried that employees in a business are exposed to COVID-19, (2) There is a high probability of being exposed to COVID-19 compared to other diseases, (3) Business owners will lose financially due to COVID-19, (4) There is considerable uncertainty when predicting how well the business will perform, and (5) there is a high probability of failure.

### 2.2 Entrepreneurship Orientation

Entrepreneurship is a concept that can be seen from various perspectives. It is also understood that individuals who organize resources, whether human or financial resources for profit, are entrepreneurs (Severo et al., 2021). According to Shen et al. (2020), there are three main dimensions that indicate an entrepreneurial orientation, as follows: innovativeness, proactiveness, and risk-taking are the proportions of entrepreneurial orientation assessed empirically in previous research (Solehati, 2021; Tam, 2012; Tempo.co., 2021). Entrepreneurial orientation refers to the managerial characteristics of risk taking, innovation and proactiveness (Zhao et al., 2021). The description of the definition of entrepreneurial orientation shows aggressiveness and autonomy as additional elements. Therefore, proactiveness, autonomy, innovation, risk taking, and competitive aggressiveness are applied as measurements to determine entrepreneurial orientation in this study which was adopted from the study (Kozak, 2021).

### 2.3 Innovation Capability

Innovation, according to Bouncken et al. (2021), is the implementation of new company processes, marketing tactics, service quality enhancement, or external interactions. Because it is a source of firm performance, innovation capability may be improved by new operational procedures to gain new technology (Dabi et al., 2018). For enterprises in the tourist and creative economy sectors to modernize and compete, innovation capability is a vital resource. The ability to innovate is needed in the face of competition. Not only to face competition but having the ability to innovate can also make a business survive and develop for the better. The purpose of innovation is not only to reduce costs, but by innovating can also develop business or respond to customer needs. The capacity to assess creativity in issue solutions and possibilities to enhance performance is

referred to as innovation capability. Product innovation (physical product change), service innovation (service process effectiveness), and marketing are the three components of innovation capabilities, according to Migdadi (2020).

#### 2.4 Business Performance

Business performance is an indicator of the level of success in achieving business goals. MSME performance is defined as the result of an independent business decision process related to business management, namely, identifying, developing, and bringing that vision into ideas to create opportunities with better ways of doing things (Ali et al., 2018). Business Performance is a measure of the level of achievement of the performance of micro, small, and medium enterprises (Wibowo, 2018). According to Satwika and Dewi (2018), business performance is a factor commonly used to measure the impact of a company's strategy in facing competition. This understanding emphasizes that business performance is not something that can just happen but requires a process (Feranita and Setiawan, 2019). Business performance in this study was measured using indicators from Antari and Widagda (2022), and Yasa et al. (2021), Muna et al. (2022), namely growth in sales profit, growth in the number of customers, growth in market share, and growth in sales volume.

#### 2.5 Research Concept Framework

The perception of the risk of COVID-19 is one of the determining factors for the achievement of MSME business performance in the tourism and creative economy sectors in Bali. The perception of COVID-19 risk is a negative impact of the condition of the emergence of the COVID-19 pandemic since December 2019. This perception of COVID-19 risk has a negative influence on the achievement of MSME business performance. Furthermore, MSMEs have an entrepreneurial orientation that can increase business performance. Despite the perceived risk of COVID-19, but with a high entrepreneurial orientation, MSMEs are able to build their innovation capabilities in order to improve business performance. The conceptual framework for this research can be seen in Fig. 1.

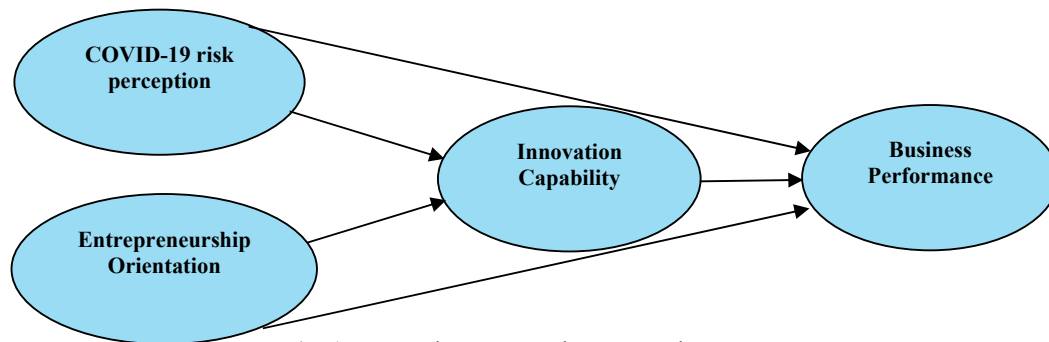


Fig. 1. Research Conceptual Framework

### 3. Research Hypothesis

Based on the existing conceptual framework, the research hypotheses that can be formulated are as follows.

- H<sub>1</sub>:** *COVID-19 Risk Perception has a negative and significant impact on business performance.*
- H<sub>2</sub>:** *Entrepreneurial orientation has a positive and significant effect on business performance.*
- H<sub>3</sub>:** *COVID-19 Risk Perception has a negative and significant impact on innovation capability.*
- H<sub>4</sub>:** *Entrepreneurial orientation has a positive and significant impact on innovation capability.*
- H<sub>5</sub>:** *Innovation capability has a positive and significant impact on business performance.*
- H<sub>6</sub>:** *Innovation capability is able to significantly mediate the effect of COVID-19 risk perception on business performance.*
- H<sub>7</sub>:** *Innovation capability is able to significantly mediate the effect of entrepreneurial orientation on business performance.*

### 4. Research methods

This type of research is quantitative research, with a causal design. That is, this study aims to examine and analyze the relationship between the variables of COVID-19 risk perception, entrepreneurial orientation, innovation capability, and business performance. The population in this study were all MSMEs in the tourism and creative economy sectors in Bali Province. The sample size of this study was 90 SMEs, where the determination of the sample in this study was carried out by multiplying the number of measurements by 5. Indicators of the COVID-19 risk perception variable, entrepreneurial orientation, innovation capability, and business performance are measured using a five-point Likert scale by MSMEs' owners or managers as strategists. This approach is used to assess respondents' perceptions on a scale of highly agree (5), agree (4), neutral (3), disagree (2), severely disagree (1).

This study uses two types of data, namely: 1) Primary data, namely data obtained from filling out questionnaires by respondents in this case are owners or managers of MSMEs in the tourism and creative economy sectors in Bali Province; 2) Secondary data, namely data obtained from other sources that support research. Data collection techniques were carried out through questionnaires to the owners or managers of the tourism sector and creative economy SMEs in Bali Province. The form of the research instrument used is a list of questions or a questionnaire because the nature of this research is a survey research that requires primary data. Before the instrument is used in research, pilot testing is carried out first. Pilot testing is the initial test of the research instrument. This test is conducted to test the feasibility of a research instrument whether it is feasible or not before this instrument is applied to the actual research. Pilot testing is carried out by distributing it to 30 respondents for further testing. The instrument test carried out is a test of validity and reliability. The aim is to ensure that the instrument used is appropriate in measuring what you want to measure and to know the consistency of the responses given by the respondents. Testing the validity of the instrument using the product moment correlation technique from Pearson with a minimum limit of  $r = 0.3$  (Sugiyono, 2018: 150). Instrument reliability testing is done by calculating the reliability coefficient of Cronbach Alpha with a minimum limit of Alpha coefficient 0.6. The results of the validity and reliability analysis are presented in Table 1 and Table 2.

**Table 1**  
Instrument Validity Test

| Variable                          | Indicator of variable | Correlation Coefficient | Note  |
|-----------------------------------|-----------------------|-------------------------|-------|
| COVID-19 risk perception (X1)     | X1.1                  | 0.922                   | Valid |
|                                   | X1.2                  | 0.846                   | Valid |
|                                   | X1.3                  | 0.832                   | Valid |
|                                   | X1.4                  | 0.750                   | Valid |
|                                   | X1.5                  | 0.921                   | Valid |
| Entrepreneurship Orientation (X2) | X2.1                  | 0.841                   | Valid |
|                                   | X2.2                  | 0.806                   | Valid |
|                                   | X2.3                  | 0.888                   | Valid |
|                                   | X2.4                  | 0.866                   | Valid |
|                                   | X2.5                  | 0.914                   | Valid |
| Innovation Capability (Y1)        | Y1.1                  | 0.792                   | Valid |
|                                   | Y1.2                  | 0.921                   | Valid |
|                                   | Y1.3                  | 0.920                   | Valid |
| Business Performance (Y2)         | Y2.1                  | 0.950                   | Valid |
|                                   | Y2.2                  | 0.901                   | Valid |
|                                   | Y2.3                  | 0.897                   | Valid |
|                                   | Y2.4                  | 0.854                   | Valid |

Source: Data processed, 2022

The results of the validity test in Table 1 show that all variables have coefficient values with a total score of all statement items greater than 0.30. This shows that the statement in the research instrument is valid.

**Table 2**  
Instrument Reliability Test

| Variable                          | Cronbach's Alpha | Note     |
|-----------------------------------|------------------|----------|
| COVID-19 risk perception (X1)     | 0.909            | Reliable |
| Entrepreneurship Orientation (X2) | 0.914            | Reliable |
| Innovation Capability (Y1)        | 0.852            | Reliable |
| Business Performance (Y2)         | 0.922            | Reliable |

Source: Data processed, 2022

Table 2 shows that all the variables used in this study have met the requirements for consistency and data reliability. All variables have Cronbach's Alpha of more than 0.70 which means that all variable indicators in this study are reliable, so they can be used as research instruments. After the instrument is declared eligible, the next step is distributing questionnaires. The data that has been collected is then tabulated in a table and descriptively discussed. Descriptive analysis is the provision of numbers, both in the number of respondents along with the average value of respondents' answers and percentages. The causal relationship formulated in this study uses a model that is not simple, the variables in the model are in a recursive form. This form of causal relationship requires an analytical tool that is able to explain the relationship, so the inferential statistical method used is Structural Equation Modeling (SEM) – PLS.

## 5. Results and discussion

### 5.1 Characteristics of respondents

Profiles of 90 respondents are presented in general with several characteristics including gender, age, last education. The characteristics of the respondents in this study can be described as follows. There are more female respondents than male respondents, namely 55 women and 35 male respondents. Age range > 40 -50 years dominated filling out the questionnaire

by 28 people. Respondents with undergraduate education dominate, as many as 51 people. The characteristics of the respondents are presented in Fig. 2.

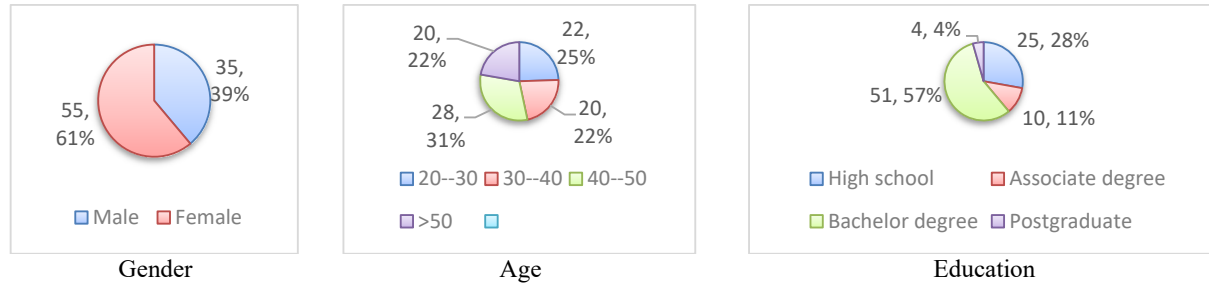


Fig. 2. Characteristics of Respondents

Source: Data processed, 2022

5.2 PLS SEM Analysis Results

This study uses a two-stage approach to measuring the model before it is used for hypothesis testing, aiming to verify the validity and reliability of a research model. First, by analyzing the convergent validity, then by analyzing the discriminant validity.

5.2.1 Test Outer Model

Convergent Validity

The outer model test is carried out to ensure the research indicators are suitable for use as their role in measuring research variables, so to see whether a model is valid to be the basis for research, there are three criteria that must be met, namely: (1) all loading indicators must be above 0.65 (2) Composite Reliability (CR) must be above 0.8, and (3) Average Variance Extracted (AVE) for each construct must exceed 0.5.

Table 3 Model Size Results

| Construct                         | Indicator | Outer Loading | Composite Reliability | Average Variance Extracted (AVE) |
|-----------------------------------|-----------|---------------|-----------------------|----------------------------------|
| COVID-19 risk perception (X1)     | X1.1      | 0.923         | 0.954                 | 0.815                            |
|                                   | X1.2      | 0.845         |                       |                                  |
|                                   | X1.3      | 0.886         |                       |                                  |
|                                   | X1.4      | 0.897         |                       |                                  |
|                                   | X1.5      | 0.931         |                       |                                  |
| Entrepreneurship Orientation (X2) | X2.1      | 0.905         | 0.961                 | 0.833                            |
|                                   | X2.2      | 0.911         |                       |                                  |
|                                   | X2.3      | 0.887         |                       |                                  |
|                                   | X2.4      | 0.928         |                       |                                  |
|                                   | X2.5      | 0.932         |                       |                                  |
| Innovation Capability (Y1)        | Y1.1      | 0.903         | 0.930                 | 0.815                            |
|                                   | Y1.2      | 0.929         |                       |                                  |
|                                   | Y1.3      | 0.875         |                       |                                  |
| Business Performance (Y2)         | Y2.1      | 0.953         | 0.966                 | 0.877                            |
|                                   | Y2.2      | 0.931         |                       |                                  |
|                                   | Y2.3      | 0.929         |                       |                                  |
|                                   | Y2.4      | 0.933         |                       |                                  |

Source: Data processed, 2022

Based on Table 4, it shows that all outer loading indicators have values above 0.6 with a range between 0.845 to 0.953 meaning they are at the recommendation limit, then the Composite Reliability (CR) value is in the range between 0.930 to 0.966, all of which are above 0.8 meaning all constructs formed. has good consistency as a research model, the third is the Average Variance Extracted (AVE) value where all values are above 0.5 with a range from 0.815 to 0.877 so it can be concluded that the research model in this study has good validity.

Discriminant Validity

To evaluate discriminant validity, a research model is suggested to ensure that the root value of the Average Variance Extracted ( $\sqrt{AVE}$ ) of a latent variable must be larger.

**Table 4**  
Correlation Between Latent Variables

| Construct                    | COVID-19 Risk Perception | Entrepreneurship Orientation | Innovation Capability | Business performance |
|------------------------------|--------------------------|------------------------------|-----------------------|----------------------|
| COVID-19 Risk Perception     | 1.000                    | -0.829                       | -0.810                | -0.836               |
| Entrepreneurship Orientation | -0.829                   | 1.000                        | 0.892                 | 0.882                |
| Innovation Capability        | -0.810                   | 0.892                        | 1.000                 | 0.881                |
| Business performance         | -0.836                   | 0.882                        | 0.881                 | 1.000                |

Source: Data processed, 2022

**Table 5**  
Root square of the average variance extracted (AVE)

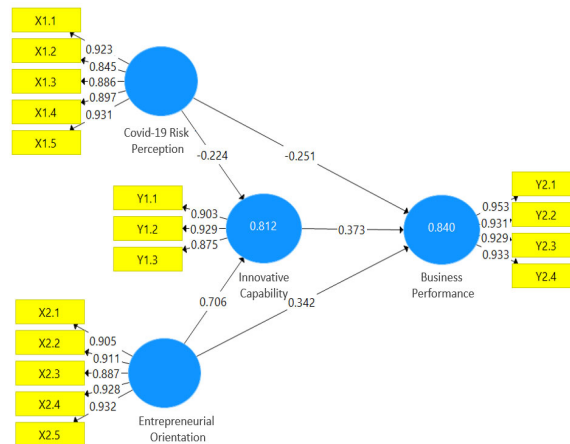
| Construct                    | Average Variance Extracted (AVE) | RSAVE |
|------------------------------|----------------------------------|-------|
| COVID-19 Risk Perception     | 0.805                            | 0.897 |
| Entrepreneurship Orientation | 0.833                            | 0.913 |
| Innovation Capability        | 0.815                            | 0.903 |
| Business performance         | 0.877                            | 0.936 |

Source: Data processed, 2022

Discriminant validity is considered good if the root value of AVE ( $\sqrt{AVE}$ ) in Table 6 is greater than 0.5. The research model proposed in this study can be considered good, where the smallest  $\sqrt{AVE}$  value is 0.897

*Inner Model Test*

Structural models focus on hypothesized relationships or pathways between latent variables. The results of the inner model test can be seen in Fig. 3.



**Fig. 3.** Structural Model

The structural model was evaluated using R-square for the dependent construct and t-test as well as the significance of the coefficients of the structural path parameters.

*Coefficient of Determination (R2)*

In this study, bootstrap will be carried out which will produce two measurements of the structural model, namely: the value of t (t-test) and R<sup>2</sup> which will be interpreted the same as multiple regression analysis in general. The predictive power of a research model can be seen by looking at the R<sup>2</sup> value generated by the bootstrapping process, in Table 6. the R<sup>2</sup> value for each exogenous variable contained in the model will be presented.

**Table 6**  
Coefficient of Determination

| Construct             | R <sup>2</sup> |
|-----------------------|----------------|
| Innovation Capability | 0.812          |
| Business performance  | 0.840          |

Note: only the endogenous (dependent) variable has a value of R<sup>2</sup>

Source: Data processed, 2022

Based on Table 6, it can be explained that the highest  $R^2$  value is found in the business performance variable of 0.840 which means that as much as 84.0% of the business performance variable can be explained by the constructs contained in the model, namely COVID-19 Risk Perception, Entrepreneurship Orientation, and Innovation Capability, while the lowest value found in the Innovation Capability variable of 0.812 which means that 81.2% of the Innovation Capability variable can be explained by the constructs that influence these variables, namely COVID-19 risk perception and entrepreneurial orientation. From the examination of the  $R^2$  value, it can be concluded that in general the predictive ability of this research model is good, seen from all variables that have an  $R^2$  value above 50%.

### Hypothesis testing

The significance of the estimated parameters provides very useful information about the relationship between the research variables. The basis used in testing the hypothesis is the value contained in the output path coefficients which is presented in Table 7.

**Table 7**  
Path Coefficient

| Hypothesis | Correlation between Variables   | Path Coefficient | t-statistic | p-values | Note        |
|------------|---|------------------|-------------|----------|-------------|
| H1         | COVID-19 Risk Perception → Business performance                             | -0.251           | 2.440       | 0.015    | Significant |
| H2         | Entrepreneurship Orientation → Business performance                         | 0.342            | 2.441       | 0.015    | Significant |
| H3         | COVID-19 Risk Perception → Innovation Capability                            | -0.224           | 2.861       | 0.004    | Significant |
| H4         | Entrepreneurship Orientation → Innovation Capability                        | 0.706            | 9.234       | 0.000    | Significant |
| H5         | Innovation Capability → Business performance                                | 0.373            | 3.352       | 0.001    | Significant |
| H6         | COVID-19 Risk Perception → Innovation Capability → Business performance     | -0.084           | 2.207       | 0.028    | Significant |
| H7         | Entrepreneurship Orientation → Innovation Capability → Business performance | 0.263            | 3.088       | 0.002    | Significant |

Source: Data processed, 2022

Hypothesis testing is done by using t-statistics and looking at the p-value. If the p-value  $< 0.05$  then the hypothesis is accepted. Based on Table 8, it can be explained that the perception of COVID-19 risk on business performance has a t-statistic value of 2,440 with a p-value of  $0.015 < 0.05$ , so H1 is accepted. This means that the higher the COVID-19 risk perception, the lower the business performance. Entrepreneurship orientation to business performance has a t-statistic value of 2.441 with a p-value of  $0.015 < 0.05$ , so H2 is accepted. This means that the higher the Entrepreneurial Orientation, the higher the business performance. The COVID-19 Risk Perception of Innovation Capability has a t-statistic value of 2.861 with a p-value of  $0.004 < 0.05$ , so H3 is accepted. This means that the higher the perceived risk of COVID-19, the lower the Innovation Capability. Entrepreneurship Orientation has an effect on Innovation Capability with a t-statistic value of 9.234 with a p-value of  $0.000 < 0.05$  then H4 is accepted. Innovation Capability on business performance has a t-statistic value of 3,352 with a p-value of  $0.001 < 0.05$ , so H5 is accepted. This means that the higher the Innovation Capability, the higher the business performance. Furthermore, for the indirect effect, the following results are obtained. The influence of COVID-19 risk perception on business performance through Innovation Capability obtained a t-statistic value of 2.207 with a p-value of  $0.028 < 0.05$ . This means that Innovation Capability is able to partially mediate the effect of COVID-19 risk perception on business performance. Likewise, the effect of Entrepreneurship Orientation on business performance through Innovation Capability, the t-statistic result is 3,088 with a p-value of  $0.001 < 0.05$ . This means that Innovation Capability is able to partially mediate the effect of entrepreneurial orientation on business performance.

## 6. Discussion

### 6.1 Effect of COVID-19 Risk Perception on Business Performance

Based on the analysis of the impact of COVID-19 risk perception on business performance, the beta coefficient value is -0.251 with a significance level of  $0.015 < 0.05$ , which means  $H_0$  is rejected and H1 is accepted. These results mean that the COVID-19 Risk Perception variable has a negative and significant effect on the business performance of SMEs in the tourism sector and the creative economy in Bali. This means that, the higher the COVID-19 Risk Perception felt by managers of MSMEs in the tourism and creative economy sectors, which is indicated by: employees worry about being exposed to COVID-19, there is a greater chance of being exposed to COVID-19 compared to other diseases, business owners lose financially due to COVID-19, there is considerable uncertainty when predicting how well the business will run, and there is a high probability of failure, which can reduce business performance. The results of this study at the same time strengthen the results of previous research conducted by Telagawathi et al. (2022), which states that the perceived risk of COVID-19 reduces business performance. Similar results have also been obtained previously by Wieczorek-Kosmala et al. (2021), which stated that the perceived risk of COVID-19 did significantly reduce business performance. The results of this study are also strengthened by the results of research from Shen et al. (2020), found that the COVID-19 Risk Perception variable had a negative and significant effect on the business performance variable.

### 6.2 The Influence of Entrepreneurship Orientation on Business Performance

The influence of entrepreneurial orientation on business performance shows a beta coefficient of 0.342 with a significance level of  $0.015 < 0.05$ , which means  $H_0$  is rejected and H1 is accepted. These results mean that the Entrepreneurial Orientation

variable has a positive and significant effect on business performance. So, the higher the Entrepreneurship Orientation owned by the managers of MSMEs in the tourism sector and the creative economy in Bali, which is indicated by their creativity, innovation, risk-taking, independence, and daring to compete, the higher the business performance. The results of this study at the same time strengthen the results of previous research conducted by Setini et al. (2020), which states that the Entrepreneurial Orientation variable has a positive and significant effect on business performance. The results of this study are strengthened by the research of Wahyuni and Sara (2020); Telagathi et al. (2022), found the results of the Entrepreneurial Orientation variable having a positive and significant effect on business performance, so it can be concluded that a high Entrepreneurial Orientation has a positive and significant effect on business performance.

### *6.3 Effect of COVID-19 Risk Perception on Innovation Capability*

The results of the analysis of the influence of COVID-19 Risk Perception on Innovation Capability show the beta coefficient value of -0.224 with a significance level of  $0.004 < 0.05$ , which means  $H_0$  is rejected and  $H_1$  is accepted. These results mean that COVID-19 Risk Perception has a negative and significant impact on Innovation Capability. This means, the higher the COVID-19 Risk Perception shown by the concern that employees in a business are exposed to COVID-19, there is a greater chance of being exposed to COVID-19 compared to other diseases, business owners lose financially due to COVID-19, there is uncertainty which is quite large when predicting how well the business can run, and the presence of a high probability of failure, can reduce the innovation capability of MSMEs in the tourism sector and the creative economy. The results of this study at the same time strengthen the results of previous research conducted by Gong et al. (2020) regarding the role of COVID-19 Risk Perception can indeed reduce Innovation Capability. These results are also strengthened by the results of research by Rodrigues and de Noronha (2021), which found the result that COVID-19 Risk Perception had a negative and significant effect on Innovation Capability.

### *6.4 The Influence of Entrepreneurial Orientation on Innovation Capability*

The effect of Entrepreneurial Orientation on Innovation Capability, the result is a beta coefficient of 0.706 and a significance level of  $0.000 < 0.05$ , which means  $H_0$  is rejected and  $H_1$  is accepted. These results mean, Entrepreneurship Orientation has a positive and significant effect on Innovation Capability. This means, the higher the entrepreneurial orientation shown by the presence of creativity, innovation, risk taking, independence, and the courage to compete, the greater the innovation capability. The results of this study at the same time strengthen the results of previous research conducted by Kee and Rahman (2020) concerning Entrepreneurship Orientation is able to increase Innovation Capability. Furthermore, Setini et al. (2021), researching on the effect of entrepreneurial orientation on Innovation Capability also found the same results, namely the existence of a high Entrepreneurial Orientation has a positive and significant impact on Innovation Capability. In addition, there are still several researchers who show consistent results, namely Telagathi et al. (2022). It can be concluded that the Entrepreneurship Orientation has a positive and significant influence on the Innovation Capability, this means that the higher the Entrepreneurship Orientation owned by the MSME managers in the tourism and creative economy sectors in Bali, the greater the Innovation Capability.

### *6.5 The Influence of Innovation Capability on Business Performance*

Furthermore, the results of the analysis of the influence of Innovation Capability on business performance obtained a beta coefficient of 0.373 with a significance level of  $0.001 < 0.05$ , which means  $H_0$  is rejected and  $H_1$  is accepted. These results mean that the Innovation Capability variable has a positive and significant impact on the business performance of MSMEs in the tourism sector and the creative economy in Bali. This means that, the higher the Innovation Capability shown by the product innovation capability or capability, service capability, and marketing capability, the higher the business performance. The results of this study at the same time strengthen the results of previous research conducted by Wijaya et al. (2019), which states that Innovation Capability plays an important role in improving business performance. Similar results have also been obtained by Yasa et al. (2016), which states that innovation capabilities are able to improve business performance. The results of this study are also strengthened by the results of research by Setini et al. (2021); Telagathi et al. (2022), who found that the Innovation Capability variable had a positive and significant effect on the business performance variable.

### *6.6 The Role of Innovation Capability in Mediating COVID-19 Risk Perceptions on Business Performance*

For the effect of COVID-19 Risk Perception on business performance through Innovation Capability, the results of the beta coefficient value are -0.084 and a significance level of  $0.028 < 0.05$ , which means  $H_0$  is rejected and  $H_1$  is accepted. The results of the analysis show that the Innovation Capability variable is able to significantly mediate the effect of COVID-19 risk perception on the business performance of MSMEs in the tourism sector and the creative economy in Bali. This means that the influence of COVID-19 Risk Perception on business performance can decrease if it is able to build Innovation Capability first and then Innovation Capability is able to improve business performance.



### 6.7 The Role of Innovation Capability Mediates the Effect of Entrepreneurial Orientation on Business Performance

The results of the analysis of the influence of Entrepreneurial Orientation on business performance through Innovation Capability obtained a beta coefficient value of 0.263 with a significance level of  $0.002 < 0.05$ , which means  $H_0$  is rejected and  $H_1$  is accepted. These results indicate that the Innovation Capability variable is able to significantly mediate the influence of Entrepreneurship Orientation on the business performance of MSMEs in the tourism sector and the creative economy in Bali. This means that the Entrepreneurship Orientation owned by MSME managers in the tourism and creative economy sectors is able to build Innovation Capability and subsequently Innovation Capability which improves MSME business performance in the tourism and creative economy sectors in Bali.

## 7. Conclusion

The results of this study are: 1) The higher the COVID-19 Risk Perception felt by the MSMEs in the tourism and creative economy sectors in Bali, the lower the achievement of their business performance. 2) The higher the Entrepreneurship Orientation owned by the MSME managers in the tourism and creative economy sectors in Bali, the higher the business performance. 3) The higher the COVID-19 Risk Perception that the tourism sector and creative economy SMEs have in Bali, the lower their Innovation Capability. 4) The higher the entrepreneurial orientation of the MSME managers in the tourism sector and the creative economy, the more capable they are to build high Innovation Capability. 5) Likewise, the higher the Innovation Capability, the higher the business performance. 6) Innovation Capability is able to reduce the negative impact of COVID-19 risk perception on business performance. 7) Furthermore, Innovation Capability can be improved by building a higher entrepreneurial orientation and later the increase in Innovation Capability has an effect on increasing MSME business performance in the tourism sector and the creative economy in Bali.

## References

- Antari, N. K. W., & Widagda, I. G. N. J. A. (2022). PERAN INOVASI MEMEDIASI PENGARUH ORIENTASI PASAR TERHADAP KINERJA BISNIS UMKM SONGKET. *E-Jurnal Manajemen Universitas Udayana*, 11(3).
- Bae, S. Y., & Chang, P. J. (2021). The effect of coronavirus disease-19 (COVID-19) risk perception on behavioural intention towards 'untact' tourism in South Korea during the first wave of the pandemic (March 2020). *Current Issues in Tourism*, 24(7), 1017-1035.
- Bauer, R. (1960). Consumer Behavior as Risk Taking. In Hancock, R. (ed.), *Proceedings of the 43rd American Marketing Association*. 389-398.
- Belas, J., Gavurova, B., Dvorsky, J., Cepel, M., & Durana, P. (2021). The impact of the COVID-19 pandemic on selected areas of a management system in SMEs. *Economic Research-Ekonomska Istraživanja*, 1-24.
- Bouncken, R. B., Kraus, S., & Roig-Tierno, N. (2021). Knowledge-and innovation-based business models for future growth: Digitalized business models and portfolio considerations. *Review of Managerial Science*, 15(1), 1-14.
- Brug, J., Aro, A. R., Oenema, A., De Zwart, O., Richardus, J. H., & Bishop, G. D. (2004). SARS risk perception, knowledge, precautions, and information sources, the Netherlands. *Emerging infectious diseases*, 10(8), 1486.
- Chi, N. T. K. (2021). Innovation capability: the impact of e-CRM and COVID-19 risk perception. *Technology in Society*, 67, 101725.
- Cori, L., Bianchi, F., Cadum, E., & Anthonj, C. (2020). Risk perception and COVID-19. *International journal of environmental research and public health*, 17(9), 3114.
- Dabić, M., Lažnjak, J., Smallbone, D., & Švarc, J. (2018). Intellectual capital, organisational climate, innovation culture, and SME performance: Evidence from Croatia. *Journal of Small Business and Enterprise Development*, 26(4), 522-544.
- Faradilla, S. (2021). *Pengaruh Orientasi Pasar, Orientasi Kewirausahaan, Dan Intensitas Persaingan Terhadap Kinerja Pemasaran (Studi Pada UKM Mebel Ekspor di Kabupaten Jepara Selama Masa Pandemi Covid-19)* (Doctoral dissertation, UNISNU Jepara).
- Feranita, N. V., & Setiawan, H. A. (2019). Peran Keunggulan Bersaing Dalam Memediasi Dampak Orientasi Pasar Dan Orientasi Kewirausahaan Terhadap Kinerja UMKM. *Majalah Ilmiah Dian Ilmu*, 18(1), 54-70.
- Fihartini, Y., Helmi, R. A., Hassan, M., & Oesman, Y. M. (2021). Perceived health risk, online retail ethics, and consumer behavior within online shopping during the COVID-19 pandemic. *Innovative Marketing*, 17(3), 17-29.
- Giantari, IGAK, Yasa, N.N.K., Suprasto, B., Rahmayanti, P.L.D. (2022), The role of digital marketing in mediating the effect of the COVID-19 pandemic and the intensity of competition on business performance, *International Journal of Data and Network Science*, 6(1), 217-232
- Kee, D. M. H., & Rahman, N. A. (2020). Entrepreneurial Orientation, Innovation and SME Performance: A Study of SMEs in Malaysia using PLS-SEM. *Global Journal of Business Society Science Review*, 8(2), 73-80.
- Kozak, S. (2021). The Impact of COVID-19 on Bank Equity and Performance: The Case of Central Eastern South European Countries. *Sustainability*, 13(19), 11036.
- Migdadi, M. M. (2020). Knowledge management, customer relationship management and innovation capabilities. *Journal of Business & Industrial Marketing*, 36(1), 111-124.
- Mohammad, H. I., Luka, J., & Daniel, M. (2021). Entrepreneurship Orientation, Innovation and Firm Performance in North-East Nigeria. *Nigerian Journal of Accounting and Finance*, 13, 123-149.

- Mulyana, M., Hendar, H., Zulfa, M., & Ratnawati, A. (2020). Marketing Innovativeness on Marketing Performance: Role of Religio-Centric Relational Marketing Strategy. *Journal of Relationship Marketing*, 19(1), 52-74.
- Muna, N., Yasa, N., Ekawati, N.W., Wibawa, I M.A. (2022). A dynamic capability theory perspective: borderless media breakthrough to enhance SMEs performance, *International Journal of Data and Network Science*, 6(2), 363-374.
- Mustari, M., Arisah, N., Thaief, I., Fatmawati, F., & Hasan, M. (2021). Pengaruh Orientasi Kewirausahaan dan Orientasi Pasar terhadap Kinerja UMKM di Kota Makassar. In *Seminar Nasional Teknologi Pendidikan*, 1(1), 165-177.
- Najafi-Tavani, S., Najafi-Tavani, Z., Naudé, P., Oghazi, P., & Zeynaloo, E. (2018). How collaborative innovation networks affect new product performance: Product innovation capability, process innovation capability, and absorptive capacity. *Industrial marketing management*, 73, 193-205.
- Purwanto, H., & Trihudyatmanto, M. (2018). Pengaruh Intensi Berwirausaha, Orientasi Kewirausahaan Terhadap Kinerja Usaha dengan Motivasi Sebagai Variabel Intervening pada Sentra UMKM Carica di Wonosobo. *Journal of Economic, Management, Accounting and Technology (JEMATEch)*, 1(1), 42-52.
- Rodrigues, C. D., & de Noronha, M. E. S. (2021). What companies can learn from unicorn startups to overcome the COVID-19 crisis. *Innovation & Management Review*.
- Satwika, N. K. P., & Dewi, N. M. W. K. (2018). *Pengaruh Orientasi Pasar serta Inovasi terhadap Keunggulan Kompetitif dan Kinerja Bisnis* (Doctoral dissertation, Udayana University).
- Setini, M., Yasa, N.N.K., Supartha, W.G., Giantari I.G.A.K., (2021), The effects of knowledge sharing, social capital and innovation on marketing performance, *International Journal of Data and Network Science*, 5(3), 257-266
- Setini, M., Yasa, N.N.K., Supartha, W.G., Giantari, I.G.A.K., & Rajiani, I. (2020), The Passway of Women Entrepreneurship: Starting from Social Capital with Open Innovation, through to Knowledge Sharing and Innovative Performance, *Journal of Open Innovation: Technology, Market, and Complexity*, 6(2), 25.
- Severo, E. A., De Guimarães, J. C. F., & Dellarmelin, M. L. (2021). Impact of the COVID-19 pandemic on environmental awareness, sustainable consumption and social responsibility: Evidence from generations in Brazil and Portugal. *Journal of Cleaner Production*, 286, 124947.
- Shen, H., Fu, M., Pan, H., Yu, Z., & Chen, Y. (2020). The impact of the COVID-19 pandemic on firm performance. *Emerging Markets Finance and Trade*, 56(10), 2213-2230.
- Shen, H., Fu, M., Pan, H., Yu, Z., & Chen, Y. (2020). The impact of the COVID-19 pandemic on firm performance. *Emerging Markets Finance and Trade*, 56(10), 2213-2230.
- Solehati, A. (2021). Analisa Dampak Strategi Bisnis dan Orientasi Kewirausahaan Terhadap Kinerja Usaha. *ATRABIS: Jurnal Administrasi Bisnis (e-Journal)*, 7(2), 140-146.
- Tam, J. L. M. (2012). The moderating role of perceived risk in loyalty intentions: an investigation in a service context. *Marketing Intelligence & Planning*.
- Telagawathi, N., Yasa, N., Giantari, I., & Ekawati, N. (2022). The role of innovation strategies in mediating covid-19 perceptions and entrepreneurship orientation on Endek weaving craft business performance. *Uncertain Supply Chain Management*, 10(3), 913-922.
- Tempo.co. (2021). MenkopUKM: Ekonomi Kreatif Bali Dirindukan Publik Dunia. <https://nasional.tempo.co/read/1470919/menkopukm-ekonomi-kreatif-bali-dirindukan-publik-dunia>
- Wahyuni, N. M., & Sara, I. M. (2020). The effect of entrepreneurial orientation variables on business performance in the SME industry context. *Journal of Workplace Learning*, 32(1), 55—62.
- Wibowo, E. W. (2018). Kajian analisis kinerja usaha mikro kecil menengah (UMKM) dengan menggunakan metode balance scorecard. *Jurnal Lentera Bisnis*, 6(2), 25-43.
- Wieczorek-Kosmala, M., Błach, J., and Doś, A. 2021. COVID-19 Interruptions and SMEs Heterogeneity: Evidence from Poland. *Risks*, 9(9), 161.
- Wijaya, P.Y., Rahyuda, K., Yasa, N.N.K., Sukaatmadja, IPG. (2019), Dilemma of innovation in silver craft SMEs in Gianyar Regency of Bali Province, *Espacios*, 40(22), 15-22.
- Yasa, N.N.K., Giantari, IGAK, Sukaatmadja, IPG., Sukawati, TGR, Ekawati, NW, Nurcaya, I N., Rahanatha, GB., and Astari, A.A.E. (2021), The role of relational and informational capabilities in mediating the effect of social media adoption on business performance in fashion industry, *International Journal of Data and Network Science*, 5(4), 569-578.
- Yasa, N.N.K., Sukaatmadja, Giantari, IGAK, Rahyuda, H. (2016), The Role of Innovation Strategy in Mediating the Influence of Company Resources on Wood Craft Industry Performance in Gianyar Regency, *International Business Management*, 10(3), 262-269.
- Zhao, W., Yang, T., Hughes, K. D., & Li, Y. (2021). Entrepreneurial alertness and business model innovation: the role of entrepreneurial learning and risk perception. *International Entrepreneurship and Management Journal*, 17(2), 839-864.

