



## **Risk Management Model for SMEs: A Story from Pandemic**

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**Abstract.** *This study aims to develop a risk management model (RMM) that can be used by the small and medium enterprises (SMEs) to survive in a pandemic condition. An approach with psychological theory was used in the context of developing the RMM. The research method is based on qualitative paradigm and there are three stages in this study to develop the RMM for SMEs in a pandemic condition. This study finds that there are several problems and challenges that the SMEs management have to deal with the pandemic condition. Additional explanations are prepared to create the connection between the RMM with the Kubler-Ross Grief Cycle Theory. This RMM can be used by the SMEs management as a guide for carrying out an organization's business activities in a pandemic.*

**Abstrak.** Studi ini bertujuan untuk mengembangkan model manajemen risiko (RMM) yang dapat digunakan oleh usaha kecil dan menengah (SMEs) untuk bertahan dalam kondisi pandemi. Pendekatan dengan teori psikologi digunakan dalam konteks pengembangan RMM. Metode penelitian didasarkan pada paradigma kualitatif dan ada tiga tahapan dalam penelitian ini untuk mengembangkan RMM untuk SMEs dalam kondisi pandemi. Studi ini menemukan bahwa ada beberapa masalah dan tantangan yang harus dihadapi manajemen SMEs dalam menghadapi kondisi pandemi. Penjelasan tambahan disiapkan untuk membuat hubungan antara RMM dengan Teori Kubler-Ross Grief Cycle. RMM ini dapat digunakan oleh manajemen SMEs sebagai pedoman dalam menjalankan aktivitas bisnis organisasi di masa pandemi.

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#### **Keywords:**

*Pandemic condition; Risk management model; Small and medium enterprises*

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## **Introduction**

The business environment is an unstable environment and many factors can affect the entire system. Every business organization has a business risk that can be

caused by factors from internal organization or factors from external organization. Asgary et al. (2020) stated that business risk can affect organizational conditions and organizational management must be able to identify business risks that might occur. One type of situation that can lead to business risks for organizations is a pandemic caused by an outbreak. The pandemic caused by the corona virus has had a great impact on the social community and another life dimension (Kruger et al., 2020). The pandemic conditions caused by the corona virus have hampered the movement of the business environment. The current pandemic has made the production and marketing process of the company non-existent. As a result, business organizations do not have cash inflows and of course this has a large impact on the survival of the organization's business. Crisis conditions or pandemic conditions greatly affect economic development. Salgado-Gálvez (2018) measured the estimates of economic losses due to the natural disasters.

This pandemic condition has made many small and medium enterprises (SMEs) unable to survive in running their business. Some large-scale companies that have high resources have also stated that they are unable to survive in the long term in a pandemic condition. SMEs are business organizations that have limited resources; therefore, the capabilities of SMEs are very low in a bad business environment. Based on the latest data from the Ministry of Cooperatives and Small Business of the Republic of Indonesia, the number of SMEs that affected by the pandemic conditions is twelve million small businesses in 2021. Runyan (2006) explained that crisis conditions will create obstacles for many SMEs due to the low readiness of the organization's management, lack of cash inflows for the organization, no access to capital to continue business after the crisis is over, and government bureaucratic problems. From this fact, it is necessary to have a guideline that can be used by the SMEs management to maintain business in a pandemic condition. Han & Nigg (2011) stated that guidelines for dealing with crises are needed by a business organization to be able to continue business after the pandemic condition. Herbane (2010) explained that a crisis condition is a type of business risk that has a large impact on business organizations, therefore the guidelines are needed to get through a crisis.

Previous research has generally discussed strategies for the SMEs to run businesses in crisis conditions, but is still limited to crisis conditions caused by economic crises, riots, and natural disasters. Scuderi et al. (2019) discusses the impact of the flood disaster on the development of SMEs in Uganda. Scuderi et al. (2019) found that natural disaster risk has a negative impact on SMEs, however, if floods occur on a high frequency, they will have a significant impact on SMEs. Tambunan (2019) examined the impact of the financial crisis on SMEs. Using the survey method, Tambunan (2019) found that the financial crisis is a business risk that can have a large impact on SMEs. Chowdhury (2011) found that several types of SMEs will have a large impact due to the financial crisis, especially for SMEs with low product diversification and narrow market share. Doern (2016) examined the experiences of small businesses in the UK in crisis conditions due to riots. Doern (2016) revealed that the support of the social community is very important to maintain the business sustainability of the SMEs during the crisis condition.

From a psychological point of view, the condition of this pandemic is a big problem for the SMEs management. The big problems are not only in the business context, but also in mental and health issues. These mental problems will also have an impact on the characteristics of organizational decision making that will be carried out to deal with the pandemic. In a pandemic condition, the SMEs management must be able to exercise emotional and mental control, therefore they can make good decisions. From a psychological point of view, a pandemic is an abnormal condition and every individual must accept this condition. The theory that can explain the level

of individual acceptance of a problem is the Kubler-Ross grief cycle theory. Campbell (2020) showed that sadness is part of the suffering experienced by an individual. A pandemic condition results in business activity being lost and the profitability of the organization going down. As a result, the condition of the pandemic will give suffering to SMEs. Based on the theory of the Kubler-Ross grief cycle theory, if an individual experiences sadness, then there will be several stages experienced by that individual (Corr & Corr, 2020).

The novelty of this study is the difference in business risk conditions which experienced by SMEs. This study is to attempt to develop a risk management model (RMM) that is suitable for SMEs in a pandemic condition. This study is also supported by the opinion of Watkins et al. (2008) which states that SMEs do not have a good preparedness strategy when facing a pandemic condition. This research provides a new picture of guidelines for SMEs to be able to survive in a sudden pandemic. Pandemic conditions that cause damage to business ecosystems have different characteristics from other events, such as natural disasters. The condition of a pandemic cannot be ascertained when it will end until the health authority or the government of a country issues an official statement that the conditions of the outbreak have ended. Corey & Deitch (2011) examined business revival from the effects of Katrina hurricane and estimates that business revival will occur after six to eight months. The rise of business due to natural disasters can be estimated when it will occur, while the condition of the pandemic is not certain when it will be finished until the health authority issues an official announcement. The novelty of this research also lies in the use of psychological theory to broaden the discussion. Psychological theory is used in this research because in pandemic or crisis conditions, the SMEs management will make rational decisions that are in accordance with real conditions. Rational decision making is based on emotions, the level of knowledge, and resources possessed. Runyan (2006) found that in crisis conditions, organizational decision making becomes more difficult due to limited information and less decision-making time. The use of psychological theory will be able to explain the reasons for decision making by SMEs during the pandemic. The support of psychological theory will make the model which produced from this research be in accordance with the real conditions faced by SMEs during the pandemic.

The question in this research is how the initial model or framework (RMM) that can be implemented by the SMEs management in order to be able to survive in a pandemic condition? This research was compiled because it is based on the opinion of Runyan (2006) which states that economic and business research has not made much discussion about disaster risk management, especially for SMEs. Herbane (2010) also emphasizes conducting research on crisis management in SMEs. The urgency of this research is also based on the opinion of McKnight & Linnenluecke (2016) which states that crisis conditions will test the social resilience of the community and support from stakeholders is very important to help SMEs survive in crisis conditions. This study is expected to support the opinion of Han & Nigg (2011) which explains that the management of business organizations must have disaster management when facing crisis conditions. This research aims to develop an initial model or framework (RMM) that can be used by the SMEs management to be able to survive in a pandemic condition. This research is expected to contribute to providing guidelines for SMEs in running businesses during the pandemic.

## **Research Method**

The qualitative paradigm was used for this study. The preparation of the model was based on the previous research and adjusted to the characteristics of the SMEs

in Indonesia. The literature review method was used to analyze the content of previous research and to find the core for the development of the model. The main literatures as the guideline for this research are Doern (2016), Runyan (2006), and Tambunan (2019). Runyan (2006) used qualitative perspective by conducting interviews with several stakeholder groups in the SMEs in the United States.

Data collection techniques in this research were carried out by the semi-structured interview method using online applications. The semi-structured interview method was implemented because it was in accordance with the research objectives and followed Samantha (2018). The semi-structured interview method using an online application was carried out to follow the government's call for the social distancing and health protocol in pandemic condition. The purpose of the interview session is to understand the condition of the SMEs in the initial period of the pandemic and also to realize the effort and the strategy which used by the SMEs management to maintain their business during the pandemic.

The informants for this research were the SMEs management in Buleleng regency and Tabanan regency in Bali and also SMEs management in Central Lombok regency in Western Lesser Sundas. The reasons for this research using informants from the SMEs management in those regencies are (1) researchers have access to data and connections to conduct interviews with informants and (2) based on the preliminary observations, the characteristics of SMEs in this study are not ready to face the pandemic conditions, therefore they are in accordance with the research objectives. Preliminary observations indicate that these business organizations received significant impacts from the pandemic conditions. The list of interview questions is arranged in the form of general questions and the next questions will be based on the interviewees' answers. Some common questions for the interview process are:

Table 1. The List Question for the Interview Process

| <b>The purpose of the question</b>             | <b>The common questions</b>                                                                                                                                                                                                                                              |
|------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| To identify the organization's characteristics | <ul style="list-style-type: none"> <li>• What is the type of business organization?</li> <li>• What is the organizational structure?</li> <li>• How many employees do you have?</li> <li>• Is knowing about the concept of risk management and business risk?</li> </ul> |
| To identify the business risks                 | <ul style="list-style-type: none"> <li>• Are you aware of possible business risks?</li> <li>• What impact has the pandemic had on the organization?</li> <li>• What are the losses suffered by the organization?</li> </ul>                                              |
| To identify the organization risk management   | <ul style="list-style-type: none"> <li>• What efforts have been made by management to save the organization during pandemic conditions?</li> </ul>                                                                                                                       |

Source: Author, 2021

The informants are six people who are the owners of SMEs. This study tries to describe the problems during the pandemic of each small and medium business

industry. The duration of the interview for each informant was varied, but the maximum duration of the interview was one hour. The answers of each informant were recorded in the recording device. The characteristics of SMEs for this research are arranged in the table below.

Table 2. The Characteristics of SMEs

| <b>The SMEs code</b> | <b>Type of business</b>                   | <b>Location</b>                               |
|----------------------|-------------------------------------------|-----------------------------------------------|
| SMEs A               | Culinary business                         | Buleleng regency, Bali                        |
| SMEs B               | Business in religious ceremonial supplies | Buleleng regency, Bali                        |
| SMEs C               | Crafts and carving                        | Buleleng regency, Bali                        |
| SMEs D               | Handicrafts and souvenirs                 | Buleleng regency, Bali                        |
| SMEs E               | Agriculture                               | Tabanan regency, Bali                         |
| SMEs F               | Farming and livestock business            | Central Lombok regency, Western Lesser Sundas |

Source: Author, 2021

The interviewing process was recorded and transcribed in the form of text documents. The text document was transferred into the qualitative data analysis software for the codification process. The qualitative analysis function on the software was used to analyze data and compile coding. The features contained on the software make it easier for researchers to analyze interview transcripts and find meaning in informants' statements. The protocol of data analysis is as follows:

1. The authors read the entire transcript to obtain general information from each transcript;
2. These general messages or information were compiled to retrieve specific messages;
3. The text document was examined using qualitative data analysis software for the codification process;
4. From these specific messages or information, the general pattern of data can be gleaned. Furthermore, the data can be grouped based on the sequence of events, categories, and typology.

This research method consists of three stages:

1. Data collection stage  
At this stage, interviews were conducted with several SMEs management. This stage is done to get information about the problems that are being experienced and what efforts have been made by the SMEs management to overcome these problems. This research took the SMEs management sources from various industries. This diverse sample variation is expected to provide a comprehensive understanding of the problems being experienced by the SMEs.
2. Literature review stage  
At this stage, an analysis of the previous articles was conducted which discussed the viability of SMEs in a bad business environment. Some of the previous literature is research that discusses SMEs in crisis conditions, for example during financial crises and natural disasters. Previous literature criteria for this research are focusing on SMEs, discussing the readiness of SMEs in natural disaster and bad business conditions, and provide recommendations or advice for SMEs to survive in natural disasters condition, pandemics, or emergencies. Content analysis was used for this stage.
3. The stage of constructing the model  
At this stage, an initial model or framework was developed for the SMEs

management to be able to survive in a pandemic condition. In this research, it will be assumed that pandemic conditions will occur and the stages of the model will be divided according to certain time frames. The researcher realizes that later the application of this model cannot be carried out on all types of SMEs. This is because some SMEs have different characteristics and resources. The SMEs management can choose the part of the model that suits with their business and apply it in the organization.

## Result and Discussion

This section will explain the results of interviews and analysis of the problems faced by the SMEs during pandemic condition. The informant revealed that

*“Production activities in our business have stopped completely. This is the impact of the absence of orders that come. We produce according to orders from customers”*

This answer shows that the pandemic condition has made SMEs which producing on the basis of orders from customers (made by order) unable to survive. Many SMEs are unable to maintain their business due to reduced orders. Another informant explained that

*“There was no cash flow so we decided to stop production. On the other hand, we have a debt to pay.”*

From this answer, it can be seen that there are problems regarding government policies regarding debt restructuring in SMEs. The implementation of policies is not easy to carry out in real conditions and this is the next problem for the SMEs management. The biggest problem in managing SMEs is that many SMEs management do not utilize official financial institutions to get funding for their businesses. Of course, this will make it difficult for the government to collect data for the process of restructuring the debt of SMEs. The next problem is the decision of the SMEs management to fire the employees. Small cash inflows have made the SMEs management to take the option to fire the employees. Some types of SMEs will call back workers when the pandemic condition is over. Therefore, organization no longer need to recruit new workers and ensure that SMEs will resume operations after the outbreak ends. Another informant in this research explained that

*“Our business does not receive capital from banks or official financial institutions. When this outbreak occurred, we were unable to conduct a debt review because we borrowed it not from banks”*

The problems presented here indicate that many SMEs do not or do not yet have access to capital to banks or official financial institutions. This problem should be noted by the local government and socialization and education to the SMEs management must continue to be done, especially in terms of seeking venture capital. The results of this data collection indicate that a good risk perception is not yet shared by the SMEs management. These results support Setyawan et al. (2017) who found that good business risk perceptions have not yet formed in the SMEs. Regarding the ability to identify business risks, one of the informants said that

*“If under normal business conditions we can understand that our business is subject to risks, for example competition and consumer tastes. But during a pandemic, we felt like our business was crashing and that many problems arose. It was sudden and we weren't ready.”*

This answer shows that under normal business conditions, the SMEs management is able to see business risks that arise. But during a pandemic situation, the economy as a whole goes into recession. This rapid incident made the SMEs unprepared, therefore the business risk became even greater. If based on Kubler-Ross grief cycle theory, the source person in this research have actually passed the bargaining stage. This is based on the answers of speakers who have

accepted the pandemic conditions and have been able to identify problems experienced by the organization. Several problems have been identified faced by the SMEs due to pandemic conditions. Some of these problems are (1) reduced customer orders, therefore the SMEs do not carry out production activities, (2) cash inflows are absent and government policies regarding debt restructuring have not yet reached all SMEs, (3) potential to dismiss employees, and (4) many SMEs do not seek capital through banks or official financial institutions. These problems are business risks that arise in pandemic conditions. This stage is the risk identification which aims to identify business risks faced by the SMEs in a pandemic condition. This type of business risks that arise is a reference for the SMEs management to develop an appropriate risk management strategy.

The next stage of this research is analyzing previous research that discusses the resilience of SMEs during pandemic conditions. Watkins et al. (2008) discussed the readiness of the SMEs management to reduce the impact of a pandemic influenza on the work environment. Watkins et al. (2008) found that most of the SMEs management do not have enough readiness to deal with a pandemic influenza. Corey & Deitch (2011) examined business revival after the Katrina storm. Corey & Deitch (2011) recommended business community to develop business strategies when disasters occur. To deal with the crisis period due to natural disasters, Han & Nigg (2011) identified that the perception of risk and the characteristics of decision makers are very influential on the sustainability of business organizations. Therefore, Han & Nigg (2011) recommended the management of business organizations to identify business risks and accelerate decision-making process. Brustbauer (2016) compiled organizational risk management that specifically implemented in SMEs. Brustbauer (2016) stated that in bad business conditions, then organizational risk management is a survival strategy that can be carried out by the organizational management. Asgary et al. (2020) found that dismissal of employees is a logical thing done by the SMEs management in order to survive in a pandemic condition. Tambunan (2019) recommended the SMEs to reduce work days or reduce production in order to survive in a pandemic.

Table 3. The Result of Literature Review Stage

| <b>Previous literature</b> | <b>The research result or recommendation</b>                                                                                                                                                                                                                                                                      |
|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| (Watkins et al., 2008)     | There is no readiness from SMEs management to deal with a pandemic influenza                                                                                                                                                                                                                                      |
| (Corey & Deitch, 2011)     | <ul style="list-style-type: none"> <li>• The time of business revival after a disaster is very long</li> <li>• Businesses community must develop business strategies when dealing with disaster conditions</li> </ul>                                                                                             |
| (Han & Nigg, 2011)         | <ul style="list-style-type: none"> <li>• Risk perception, business risk identification, and the characteristics of decision makers have a positive effect on the level of disaster preparedness</li> <li>• Disaster experience can be used as a basis for developing guidelines or business strategies</li> </ul> |

|                       |                                                                                                                                                                                    |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| (Brustbauer, 2016)    | <ul style="list-style-type: none"> <li>• The SMEs must have an organizational risk management mechanism</li> <li>• Organization risk management as a defensive strategy</li> </ul> |
| (Asgary et al., 2020) | Employee dismissal options are a logical thing to do by the SMEs management in order to survive in a pandemic condition                                                            |
| (Tambunan, 2019)      | Reduce the working day or reduce the production activity                                                                                                                           |

Source: Author, 2021

The stages of the modeling are based on the results of interviews and content analysis from previous research. The preparation of this model (RMM) is also based on research from Samantha (2018) which states that when a crisis occurs, the SMEs will be vulnerable to four things, namely capital, workers, raw materials or logistics, and market share. This RMM is a survival strategy that can be implemented by the SMEs management in adverse environmental conditions. This RMM consists of several parts, namely change the budget, connect the employee, reduce the activity, innovate with technology, support from the stakeholders, identify the opportunity, and support the ecosystem. If simplified, this model is called the RMM and the implementation of this model is based on the time span of the outbreak.

In this research, it is assumed that an outbreak or pandemic condition begins to spread at the beginning of the year, for example in January, and the health authorities do not yet know when the pandemic will end. When information about a pandemic starts to circulate and the coverage of infected areas is still narrow (assumed in January and February), the stage that should be done by the SMEs management is:

#### 1. Change the budget

At the beginning of the pandemic, the SMEs management can examine the current year's budget and make changes if the budget is assumed to be affected by the pandemic. During this early period, the SMEs management can re-examine debt and if possible, restructure debt early. This is important considering that during a pandemic, many business organizations will submit debt restructuring requests. At this stage it is also very important for the SMEs management to prepare cash for the benefit of the organization.

If the pandemic has spread widely (assumed to occur in March and so on), then what the SMEs management must do is:

#### 2. Connect the employee

At this stage, the SMEs management must improve communication with the workers. This communication must be done regularly to monitor the condition of the employees. The SMEs management has an obligation to monitor the health conditions of the workers and communicate with the health centers. Monitoring the condition of employee health is a form of support from the SMEs management to stop the spread of the disease. The SMEs management must have a high commitment to keep employees and not dismiss employees. Kawakami (2009) developed guidelines that can be used by the SMEs management to protect employees from pandemic influenza. The guideline which compiled by Kawakami (2009) consist of lists that can be used by the SMEs management in dealing with a pandemic.

### 3. Reduce the activity

The next stage that can be carried out by the SMEs management is to reduce the production and marketing activities of the organization. Management can also identify business risks that can arise when a pandemic occurs. Management can identify workers who can work from home. In crisis conditions, the SMEs management must note the obstacles and challenges faced and this is a reflection for the future preparation. This strategy is in accordance with the opinion of Tambunan (2019) to reduce organizational work time during crisis conditions.

### 4. Innovate with technology

In pandemic conditions, the SMEs must use technology to support organizational activities. Management can communicate with workers through online applications and coordinate the next work plan. Operational records and organizational financial records can be uploaded to online storage. There are still many SMEs that have not used technology regularly and now is the right time for the SMEs to utilize technology.

### 5. Support from the stakeholders

The SMEs management must realize that their organizations need help to survive in a pandemic condition. The SMEs management can contact the offices of cooperatives and small and medium businesses in their respective regions and coordinate on the problems encountered. The SMEs management can ask for guidance to deal with outbreaks and consult about the financial condition of the organization. In this context, the local government must provide support or assistance to all SMEs.

### 6. Identify the opportunity

In a crisis or pandemic conditions, there will be changes in behavior in the social community. The SMEs management must be able to see this change in behavior and identify that this is an opportunity in a pandemic. If the organization still has the ability to meet market demand, then management must take this opportunity. This is a form of business expansion in the pandemic and must be adjusted to the characteristics of the organization.

### 7. Support the ecosystem

Pandemic conditions require all SMEs management in one area to improve communication. This communication is needed to determine the conditions of other SMEs. At this stage, each SMEs management can arrange a crisis management or a business continuity plan that appropriate with the characteristics of the SMEs. This crisis management can be coordinated with the SMEs management and the local government, and if possible, this crisis management can be implemented as an organization's business strategy during a pandemic. Kruger et al. (2020) believes that a business continuity plan is very important to keep the business in a pandemic condition.

This RMM is a guideline that can generally be implemented by the SMEs management to run a business in a pandemic condition. Runyan (2006) stated that in a crisis situation, the management of business organizations will be faced with difficult conditions, such as high risk and little decision time. In the context of crisis, guidance or guidelines in decision making are indispensable to assist the SMEs management in making decisions. In crisis conditions, it is very important to keep in communication with employees. The SMEs management has an obligation to monitor the health conditions of employees and communicate with health centers about employee health tests. Good leadership is needed to provide peace to employees in passing the pandemic. In this way, the SMEs management has shown a commitment to protect workers and organizations from a pandemic. Organizational management must be able to shape organizational culture that focuses on healthy living behaviors.

The SMEs management can see the guidelines compiled by Kawakami (2009) to protect workers during pandemic conditions.

The biggest problem for the SMEs in Indonesia is that the SMEs management has not been able to identify business risks that can be faced by their organizations. This is supported by answers during interviews where the informants stated that they did not understand the meaning of business risk. Herbane (2010) recommended that all business organizations identify future business risks. This business risk identification is very important as a guideline for developing crisis management. Associated with reducing the activities of the organization, the SMEs management must develop a readiness strategy regarding the delivery of raw materials, storage of raw materials, and shipping products to consumers. The condition of this epidemic makes local governments must realize that there are still many SMEs that do not have access to capital from banks or official financial institutions. In the future, socialization and education must be given to the SMEs management to seek venture capital through the official financial institutions.

Risk management is an effort made by an organization's management to defend its business from the risks that may occur, both internal risks and external risks. Doff (2008) explained that in order to be able to develop a good risk management strategy, the organization's management must first identify the risks that may occur and their impact on the organization. By identifying possible risks, the organization's management will be able to create a good risk management strategy. The principle of implementing the SMEs risk management starts from the understanding that every business process has goals set by management, where the main goal in business is certainly to achieve profits, and every goal has risks inherent in every process to achieve them. Each of these risks must be identified, measured and prioritized as outlined in a risk register, therefore that it is easy to manage. Then every risk must be mitigated or managed, therefore that it guarantees the achievement of objectives and turns risk into opportunity. Risk is dynamic and monitoring and evaluation are needed to monitor any changes to the variables and assumptions that affect risk. Understanding business risks that can appear to be an obligation for a business organization. The management of a business organization must be able to identify business risks that have an impact on the organization. Herbane (2010) argues that understanding the business risks that will emerge is the beginning for a business organization to continue developing. Crisis conditions, for example caused by a pandemic, are a big business risk and occur suddenly. In this condition, the management of small and medium enterprises must also learn from the crisis. Based on current conditions, the concept of business risk has been broadly developed. Natural disasters, epidemics, terrorism and other events can be classified as business risks. Setyawan et al. (2017) has classified business risks due to natural disasters that can impact the SMEs.

There are examples of non-financial risks or external risks that interfere with company going concern such as natural disasters, epidemics, warfare, and technology. Risk is defined as the effect of uncertainty on objectives. Some risks have the potential to threaten business continuity if the necessary actions are not taken in time. These risks are referred to as significant and effective risks. Doff (2008) defined business risk as the risk of financial loss due to changes in a competitive environment or the extent to which organizations can timely adapt to these changes. SMEs are very susceptible to human error and even natural disasters that put business to a freezing point. Every business actor needs a comprehensive disaster recovery plan. Risk management can help the SMEs management to identify significant risks that can endanger the organization. Many SMEs have not yet implemented risk management practices, mainly because they are not able to

rededicate resources due to obstacles encountered. SMEs do not have the capacity to cope with natural disasters due to limited resources, expertise and awareness. There are three stages to maintaining business continuity from disasters, namely pre-disaster measures, emergency response during a disaster and continuity strategies post-disaster.

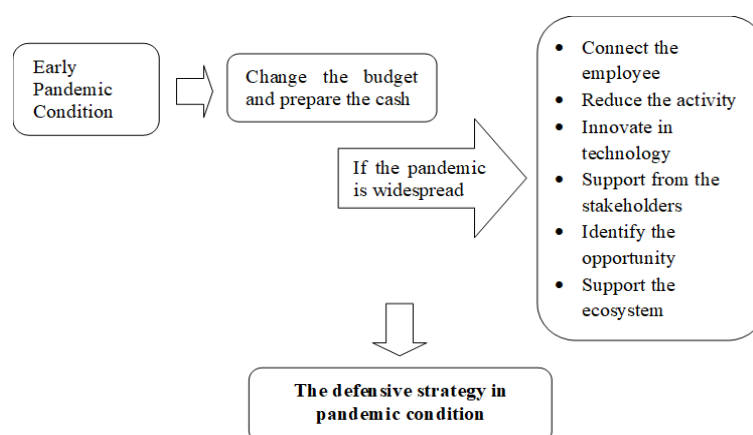
Support from the stakeholders (government and industry) is needed to maintain the SMEs in the crisis conditions. Samantha (2018) explained that in crisis conditions, good cooperation is needed between the government, industry and other organizations to support the SMEs. Samantha (2018) suggested that comprehensive strategies and specific policies are needed to help SMEs, especially during pandemic conditions. In the context of supporting SMEs during the pandemic, the government should carry out strict supervision of the SMEs in normal conditions. There must be certain criteria possessed by the SMEs in order to be able to survive in a pandemic condition. Chowdhury (2011) found several criteria that must be possessed by the SMEs in order to be able to survive in a crisis. Özar et al. (2008) suggested that the government develop specific protocols on SMEs that can be implemented in crisis conditions. Herbane (2010) stated that support from the government is a support system, therefore the SMEs can survive crisis conditions. In a pandemic context, support from all current stakeholders is important to ensure that SMEs are able to survive.

McKnight & Linnenluecke (2016) stated that support from the stakeholders for SMEs during a crisis proves the implementation of stakeholder theory and the concept of stakeholder theory must be implemented in the business ecosystem. Furthermore, McKnight & Linnenluecke (2016) explained that in times of crisis, companies can be divided into two types, namely companies that focus only on corporate interests (firm-centric postures) and companies that focus on social security (community-centric postures). In the crisis condition, the company's management should decide to include the company in the type of company that focuses on social security. In the context of a crisis, Hale et al. (2005) described that good communication between the government and the community would form a response to increase social security. Therefore, to help improve the resilience of SMEs in crisis conditions, the local government must be able to establish good communication with the SMEs management. Watkins et al. (2008) advised policy makers to design communication strategies, especially for the SMEs management during pandemic conditions. Setyawan et al. (2017) found that there are links between financial institutions, governments, and SMEs to prepare disaster preparedness plans. Financial institutions, local governments, and SMEs must prepare a disaster management to be implemented when a disaster occurs.

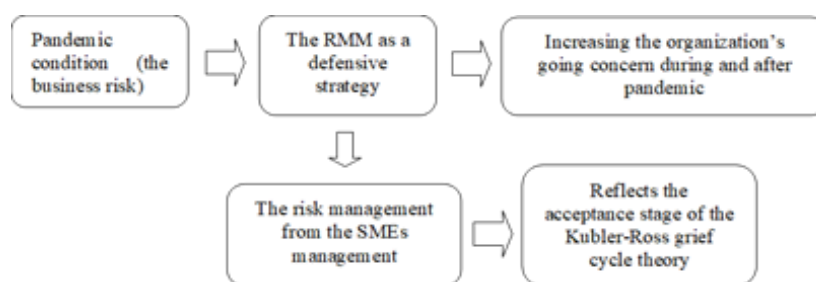
In a crisis condition, the SMEs management must be able to see new opportunities that arise in the community. This new opportunity arises from changes in behavior and changes in demand from the community. Bourletidis & Triantafyllopoulos (2014) recommended the SMEs management to make changes in product marketing strategies when in a crisis and develop new strategies to see opportunities that arise. Identification of opportunities during this crisis is very important to find alternative markets or alternative consumers. The SMEs management must be able to support the ecosystem of the SMEs. One way that can be done is to arrange crisis management in accordance with the characteristics of each organization and regional characteristics. Every SMEs can prepare a business preparedness plan and crisis management for the future then share the business preparedness plan and crisis management to the SMEs ecosystem. This process will make business readiness plans and crisis management plans more comprehensive and easier to implement.

If the RMM is connected with the concept of going concern and risk management theory, then this model is a survival strategy carried out by the SMEs management to survive in a pandemic condition. This survival strategy must be implemented in SMEs as a management effort to reduce business risk in the organization. In other words, in this pandemic condition, the SMEs management has carried out a risk management to save the organization. It must be understood that the impact of this pandemic is very large and many SMEs receive the impact, but by carrying out a risk management with the crisis model, the SMEs will receive less impact than if they did not implement the crisis model. By implementing a strategy to survive in a pandemic condition, the going concern of the organization will be maintained. Doff (2008) stated that risks in the business ecosystem are unexpected and their impact is sometimes very large on business organizations. With this opinion, a strategy to survive in a pandemic condition is needed by all business organizations, including SMEs. Kruger et al. (2020) showed that many business organizations that have not yet formulated a business continuity plan and the corona virus pandemic have proven that a business continuity plan must be prepared by the organization's management during pandemic condition.

If the RMM is viewed from the perspective of the Kubler-Ross theory, the implementation of the RMM reflects that SMEs have accepted pandemic conditions and are making efforts to survive in a pandemic condition. In other words, all the stages in the Kubler-Ross theory have been passed by the SMEs management and the implementation of the RMM is an attempt to manage SMEs to show the level of acceptance of a pandemic condition. At the beginning of the pandemic, the SMEs management did not have the option to do business and maintain the organization. The SMEs management is angry with the pandemic conditions that have an impact on profitability and organizational activities. When pandemic conditions last for a long time, then the SMEs management began to accept the conditions that exist and make efforts to maintain business continuity. The RMM in this research is an effort that can be done by the SMEs management in dealing with pandemic conditions, therefore the stages in the Kubler-Ross theory can be passed well. The implementation of the RMM in SMEs is evidence that SMEs management are starting to accept pandemic conditions and are trying to maintain business continuity.



Picture 1. The RMM as defensive strategy



Picture 2. The connection between the RMM, the Kubler-Ross grief cycle theory, business risk, and going concern

## Conclusion and Suggestion

The SMEs management must realize that the condition of the business environment has a shape like a normal curve that is sometimes in good condition and sometimes in a bad condition. A strategy or guideline that can be used by the SMEs management is needed to be able to survive in a bad business condition, for example caused by a disease outbreak. This RMM consists of the stages that must be carried out when the outbreak starts to spread and the stages that must be carried out when the pandemic condition is getting longer. This research is expected to be able to contribute to the SMEs management as a guide for dealing with pandemic conditions. During this time, the SMEs management does not have guidelines that can be used in running a business when a pandemic condition. The results of this research are expected to be read by the stakeholders as a basis for making policies, especially policies regarding SMEs during pandemic conditions.

Study on the development of SMEs should be done more in the future. The SMEs ecosystem has made a major economic contribution to Indonesia, it is appropriate that research on SMEs be carried out widely. In the future, similar research can be carried out to develop a survival strategy model in a pandemic condition by involving the government and the large industrial sector. This research also recommends that the central government and regional governments develop protocols or special rules that can be implemented in the SMEs when a crisis occurs. Crisis conditions or pandemic conditions do not often occur, but when a crisis or pandemic occurs, economic conditions always drop dramatically. This fact is supported by previous research, for example Salgado-Gálvez (2018), therefore specific guidelines when pandemic or crisis conditions are needed. Subsequent research can examine the role of stakeholders, for example governments and large industries, to support the business continuity of the SMEs in pandemic conditions. It must be understood that SMEs are business organizations that have limited resources, therefore support from the stakeholders is needed in a pandemic condition. Subsequent research can also formulate future risk management concepts for the SMEs, particularly in developing country. Future research can be based on research from Ferreira de Araújo Lima et al. (2020) that has identified the concept of risk management that is needed by the SMEs in the future. Future research can use references from previous research, such as Fahlevi et al. (2018) and Shimizu & Fujimura (2010), to examine the role of accounting in the recovery process due to natural disasters.

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