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Adaptation Level of Small Enterprises to the Covid-19 Pandemic in Lebak Regency, Banten Province, Indonesia

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Abstract

The Covid-19 pandemic required changes in the norms of life that communities have long embraced. The government of Indonesia also pursued intervention to limit social interaction. As a result, small entrepreneurs have suffered a significant slump in turnover and lost customers or business partners. They have to be adaptive to the Covid-19 pandemic to sustain their business. This article described the adaptation of small entrepreneurs in Lebak Regency, Banten Province, Indonesia to the Covid-19 pandemic. This study was survey research. Data were analyzed using the Chi-square test. The study showed that gender, access to the information, and business capital of the small enterprise owner had a relationship to their capacity to adapt to the Covid-19 pandemic which is related to their level of adaptation. This finding emphasizes the importance of broadening the access of small business owners to the required resources to adapt to the Covid-19 pandemic.

Keywords: Adaptation, Covid-19, Sustainability, Pandemic, Small Enterprise

1. Introduction

The Covid-19 pandemic that has spread to almost all regions in Indonesia has wreaked an impact on various sectors of life. Particularly, the economic sectors that are in direct contact with the people's livelihoods (Olivia et al., 2020). This condition ultimately led to a dramatic loss of opportunities, income levels, and even the business sustainability of small entrepreneurs. Although, history has proven that the form of small and medium enterprises (SMEs), especially the local SMEs, had succeeded in demonstrating their ability to support the national economy from the hit of the monetary crisis of Indonesia in 1999 (Tambunan, 2019).

The Covid-19 pandemic also became an economic crisis (Irawan & Alamsyah, 2021). It is mainly because the virus is invisible and threatens human safety, so its emergence requires changing the norms of life that lead to restrictions on social interactions, including interactions in economic activities. Various changes occur during the Covid-19 pandemic, such as production patterns (Uğur & Buruklar, 2022) and consumer behavior (Zwanka & Buff, 2020) that will shift or reform as well. This condition obliges small entrepreneurs to adopt these changes, as

they are shown that SMEs could still run, make profits, and have a better cash flow amid the pandemic (Zhang et al.,2022). Innovation and creativity to create new and profitable business opportunities are the keys to adapting, for example, innovation in production and marketing (Akpan et al., 2022).

Adaptation is required for small enterprises in Lebak Regency, Banten Province, Indonesia. Lebak regency strictly implements health protocols because it is geographically connected to Jakarta, the capital city of Indonesia, and West Java Province where both provinces were the epicenter of the covid-19 spread in Indonesia. Thus, many Lebak people are engaged in economic activities in both regions. This article has a goal to describe the capacity of adaptation of the small entrepreneurs to the Covid-19 pandemic in Lebak District, Banten Province. It also analyzes the relationship between the capacity of adaptation and its adaptation level. This research is crucial to formulae strategies for the small business development in the new-normal era.

2. Method

The study was survey research. There were 151 small entrepreneurs in five sub-districts in the developing Lebak Regency in January 2021. The samples were drawn by simple random sampling. The data were collected via a structured questionnaire. Not only was the relationship between the characteristics of respondents and their adaptive capacity to the Covid-19 pandemic, but also the relationship between their capacity and adaptation level was analyzed.

The capacity of adaptation was measured by the total score of the entrepreneurs’ efforts in both human capital (Sima et al., 2020) and marketing strategies (Mavondo, 2000) such as reducing workers, total production, selling price, and salary, increasing capital and technology, changing the shape and size of the product, promoting a product via an online system, cooperating with other entrepreneurs, and completely changing the selling product. Meanwhile, the level of adaptation was abilities to obtain three aspects of internal, market, and institutional (Sarta, 2021) which are defined as acquiring capital, main resources, proper training to upscale the business, information on business innovation during the covid outbreak, and online devices to market the product, to establish cooperation and opportunity in the business, to recruit workers, to increase customers. The capacity and level of adaptation were analyzed by the chi-square test. It has a formula:

χ² = Σ(i,j=1 to r,k) (oij-eij)² / eij (1)

where χ² is the chi-squared distribution value at a degree of freedom (r-1)(k-1), k is the number of columns, r is the number of rows, oij is the frequency of observation row i, column j, and eij is expected frequency of row i, column j.

3. Results and discussion

We carried out this research in five sub-districts in the northern part of the development area of Lebak Regency consisting of Rangkasbitung, Cibadak, Maja, Kalanganyar, and Warunggunung (Figure 1). These areas are closely connected to the capital city of Indonesia, Jakarta.

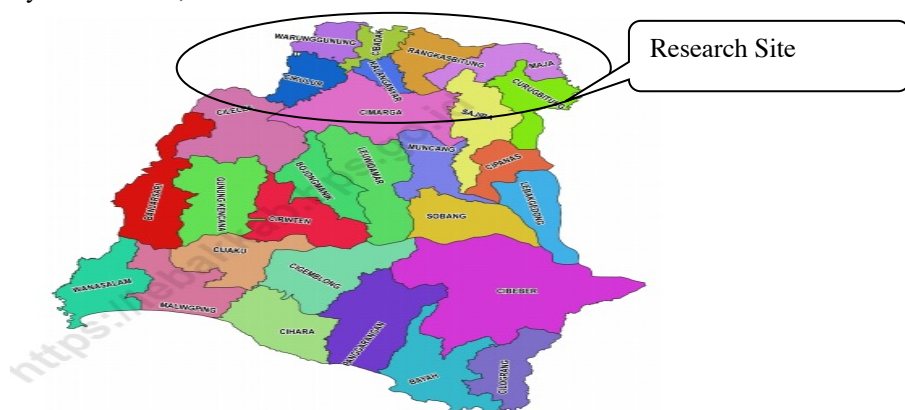


Figure 1: Map of the research site.

3.1 Characteristics of respondents

The average age of the respondents is 45.34 years with an age range of 23 to 68 years and is dominated by male small entrepreneurs. Most of the respondents are of productive age. Hence, they still could develop their business, although most of them have relatively low formal education. It is following the results of research by Ardiana, et al. (2010) and Seran (2016) stated that generally, workers in the micro, small and medium enterprises (SMEs) sector have a low education background.

The average number of dependents in the respondent's family is three people ranging from one to seven people. Most respondents have a family with three to four dependents (Table 1). Respondents have run their businesses for nine years on average. In general, they use personal savings for financing the business. Several respondents rely on both personal savings and loans from individuals and institutions. It is because most of the respondents have joined economic institutions by becoming members of cooperatives, bank customers, or associations of business actors such as associations of women entrepreneurs. We can conclude that many respondents have realized the essential role of economic institutions in business development. It is mainly related to access to capital, information, technology, mentoring, and marketing.

The Covid-19 impact on respondents' small businesses reduced profits by 47.42% in the range of 6.67 to 97%. Most of the respondents are agricultural product processing industry. Since the government implemented a policy of limiting community activities, many community members are also afraid of being exposed to Covid-19 if they leave the house, so they prefer to make their food. This condition is following the explanation of the Ministry of Cooperatives that around 163,713 SME actors were affected by the Covid-19 pandemic and the SMEs most affected were food and beverage businesses.

Table 1: Characteristics of respondents

| Variable | Category | Number (People) | Percentage (%) |
|--|----------------------------|--------------------|-------------------|
| Age (year) | < 41 year | 47 | 31.13 |
| | 41-50 year | 64 | 42.38 |
| | > 50 year | 40 | 26.49 |
| Gender | Male | 94 | 62.25 |
| | Female | 57 | 37.75 |
| Education level | ≤ Junior high school | 90 | 59.60 |
| | ≥ Junior high school | 61 | 40.40 |
| Number of dependent (people) | < 3 | 43 | 28.48 |
| | 3-4 | 83 | 54.97 |
| | > 4 | 25 | 16.55 |
| Length of business (years) | < 7 | 62 | 41.06 |
| | 7-12 | 58 | 38.41 |
| | > 12 | 31 | 20.53 |
| Sources of capital | Personal saving | 92 | 60.93 |
| | Personal savings and loans | 59 | 39.07 |
| Economic institutions | Joined | 97 | 64.24 |
| | Not joined | 54 | 35.76 |
| Exposure levels to the Covid-19 pandemic | Low | 38 | 27.94 |
| | Moderate | 59 | 43.38 |
| | High | 40 | 29.41 |
| Diversity of information sources | < 2 types | 86 | 56.95 |
| | 2 types | 48 | 31.79 |
| | >2 types | 17 | 11.26 |

Respondents' small business information sources are low diverse because most respondents only use one of four information source types commonly used to obtain information on small business development. The most widely used are personal or individual information sources, such as fellow business owners, raw materials suppliers, and marketers. Meanwhile, the information needed or transferred includes raw materials prices and availability, access to market products, market conditions or selling locations, the Covid-19 pandemic situation, also various adaptation actions to the Covid-19 pandemic.

In addition, Respondents use television and internet-based media to seek knowledge on business development (Table 2). The rapid advancement of information and communication technology has established digital media as an alternative information source that everyone could apply to seek information. This type of media has the characteristics of being easier to use, fast, complete, and without being constrained by space and time. When we need information, we can obtain them immediately because of the ease of search facilities (search engines) available. Andarwati and Sankarto (2005) explained that the internet is considered a sophisticated library with high technology that allows accessing information handily. Internet-based media usually used by respondents as a source of innovation information are WhatsApp and Facebook to find information and market opportunities, level of competition, and innovation. It showed that some respondents are literate in information and communication technology and keep up with the times.

The low proportion of respondents who use marketing institutions as a source of information is due to the lack of knowledge regarding this institution. A search at the research site reveals that the role of marketing institutions in the Rangkasbitung market has not functioned optimally in carrying out marketing functions and meeting consumer needs. Therefore, most respondents are reluctant to seek information from these marketing agencies. Besides, SMEs generally have limited access to productive sources such as technology, markets, and information.

Table 2: The proportion of respondents who use every source of information for business

| Source information | The proportion of users (%) |
|-----------------------|-----------------------------|
| TV | 37.09 |
| Internet-based media | 34.44 |
| Personal | 71.52 |
| Marketing institution | 15.89 |

3.2 Respondents adaptive capacity to the Covid-19 Pandemic

We measured the adaptive capacity of respondents to the Covid-19 pandemic by the respondent's ability to access the resources needed to take action to deal with the Covid-19 pandemic, such as capital assistance, information on innovation and technology, communication, training, and partnerships with other businesses aimed at sustaining the business. The adaptability capacity of most respondents is in the medium category. It means that most respondents afford to access the resources needed to adapt to the Covid-19 pandemic. Meanwhile, although there are fewer, the proportion of respondents with low and high adaptive capacity is almost equal.

Table 3: Number and percentage of respondents based on adaptive capacity to the covid-19 pandemic

| Adaptive capacity | Category | Number (people) | Percentage (%) |
|-------------------|----------|-----------------|----------------|
| < 19.97 | Low | 25 | 16.56 |
| 19.97 - 22.85 | Moderate | 98 | 64.90 |
| > 22.85 | High | 28 | 18.54 |
| Total | | 151 | 100 |

Table 4 shows that even during the Covid-19 pandemic, most respondents afford to access suppliers of raw materials needed for production. However, almost half of respondents found difficulties accessing consumers which indicated a decline in sales levels, income, and ability to pay labor wages. Therefore, it can be understood

why only a few respondents were able to get business capital assistance because the creditors would refer to the shocking economic conditions amid the pandemic. Meanwhile, the lowest adaptive capacity to the pandemic was accessibility to other business opportunities besides existing businesses and business partnerships with other parties. This finding confirms the strong impact of the Covid-19 pandemic on small entrepreneurs, where most business actors, alternative enterprises that may be occupied, and the availability of resources needed for business development are both under pandemic stress.

Table 4: The proportion of respondents who afford to access resources to adapt to the Covid-19 pandemic

| Resources | The proportion of respondents (%) |
|---|-----------------------------------|
| Business capital assistance | 35.09 |
| Raw material supplier | 80.79 |
| Consumer | 54.30 |
| Labor wages | 55.62 |
| Information on business innovation | 40.39 |
| Online marketing tools | 44.37 |
| Other business opportunities rather than the existing | 19.86 |
| Business partner | 23.84 |
| Business development training | 21.85 |

Almost half of the respondents indicated that the ease of accessing online marketing tools was sufficient to increase the respondent's adaptive capacity to the Covid-19 pandemic. Internet-based information and communication technology tools are not only useful for marketing products online, but also could be applied to search for business innovation information and overcome the difficulty of accessing offline business development training suffered by most respondents. That difficulty appeared due to the limited frequency and intensity of interaction of community members during the pandemic as a form of implementing social distancing.

3.3 Adaptation level of respondents to the covid-19 pandemic

We measured the adaptation level of business owners based on the diversity of actions taken by respondents to adjust their business during the Covid-19 pandemic. Most of the respondents have a high level of business adaptation (Table 5). This finding shows that respondents are making various efforts so that their businesses can survive during the covid-19 pandemic.

Table 5: Number and percentage of respondents based on the level of adaptation to the covid-19 pandemic

| Adaptation level | Category | Number (people) | Percentage (%) |
|------------------|----------|-----------------|----------------|
| < 1.73 | Low | 44 | 29.14 |
| 1.73 - 3.00 | Moderate | 49 | 32.45 |
| > 3.00 | High | 58 | 38.41 |
| Total | | 151 | 100 |

Table 6 shows that most of the respondents have adapted to the Covid-19 pandemic by reducing production volumes and reducing the workforce. These actions were interrelated because the volume of production is largely determined by the number of workers. These strategies were quite realistic to implement considering that during the Covid-19 pandemic, community movements were restricted through large-scale social restrictions (PSBB) by the government, so community mobility was reduced, especially in the tourism sector which led to a decrease in demand for SMEs products. This finding is in line with Barisa (2021) found that some SME actors adapted by reducing the supply of goods during the Covid-19 pandemic.

Table 6: The proportion of respondents in each type of business adaptation action during the covid-19 pandemic

| Business adaptation actions | The proportion of respondents (%) |
|-----------------------------------|-----------------------------------|
| Reducing labor | 40.40 |
| Reducing production volume | 47.68 |
| Marketing products online | 26.49 |
| Resizing product | 25.83 |
| Increasing business capital | 22.52 |
| Join other business owners | 18.54 |
| Switching to other business | 18.54 |
| Changing the shape of the product | 15.89 |
| Decreasing selling price | 11.26 |
| Adding production technology | 6.62 |
| Decreasing labor wages | 2.65 |
| Product diversification | 0.66 |

Many respondents also took other adaptation actions by shifting the way of marketing products from offline to online. It indicated that during the Covid-19 pandemic, since the limited movement of consumers, many business owners have innovated product marketing by utilizing social media such as Facebook, Instagram, and WhatsApp to survive and even develop their businesses. Other studies conducted by Rosi and Makruf (2020), Hardilawati (2020), and Rosmadi (2021) revealed that many SME owners managed to rise during the Covid-19 pandemic by using social media as their online product marketing tools. This condition showed the importance of guidance on using and managing digital media to lead business owners can determine the appropriate kind of digital media for marketing their products and increasing awareness and public interest in the products. Training and guidance give a positive impact on small entrepreneurs to increase their knowledge regarding general digital media, various media that are available to use, and skills to use and manage the digital media for branding (Raharja and Natari 2021).

On the other hand, the Covid-19 pandemic impact has brought the supply of raw materials to be hampered and difficult to gain in the market. The price of raw materials has also been higher than usual. For dealing with this condition, many respondents took adaptation action by increasing their business capital. Some respondents also changed the product size but did not reduce the selling price, hence production continuity, product availability for consumers, and business profits could be maintained.

A few respondents took other adaptation actions such as reducing selling prices or labor wages, adding production technology, and diversifying products. They considered these actions to be challenging to take or pose a risk to their business continuity, including strategies to change the shape of products that are more embedded in consumer perception. Many respondents decided to merge their business with the other businesses (partners), both of the same type or different types. Moreover, some respondents turned to other businesses to prevent losses. This condition indicated the importance to conduct socialization, introduction, training, and mentoring activities for small entrepreneurs, such as those carried out by Kusnandar et al. (2020) by introducing packaging and promotion technology, as well as business innovation training for small entrepreneurs.

3.4 Relationship between respondents' characteristics and adaptive capacity to the covid-19 pandemic

The chi-square (Equation 1) was applied to test the relationship between the characteristics and adaptive capacity of the respondents. The chi-squared test shows that there is a significant difference in the adaptive capacity in running a business during the Covid-19 pandemic based on gender, diversity of sources of capital, and diversity of small business information sources from the respondents, which is indicated by a p-value smaller than 5% (Table 7). In addition, there is no difference in the adaptive capacity of respondents in business during the Covid-19 pandemic based on other characteristics of respondents such as age, education level, number of family dependents, length of entrepreneurship, membership in economic institutions, and exposure to the Covid-19

pandemic on the respondent's business. It can be interpreted that the more diverse sources of information and sources of capital, respondents tend to have more adaptive capacity in doing business during the Covid-19 pandemic.

Table 7: The significance level of the relationship between respondent characteristics and adaptation capacitation to the Covid-19 pandemic

| Personal Characteristics | Value | Df | Asymp. Sig. (2-sided) |
|---|---------------------|----|-----------------------|
| Age | 1.976 ^a | 4 | .740 |
| Gender | 6.073 ^a | 2 | .048 |
| Level of education | 3.006 ^a | 4 | .557 |
| Number of dependents | 4.587 ^a | 4 | .332 |
| Long of business | 1.989 ^a | 4 | .738 |
| Various sources of capital | 8.264 ^a | 2 | .016 |
| Membership in economic institutions | 0.947 ^a | 2 | .623 |
| Exposure to the Covid-19 pandemic on small businesses | 0.241 ^a | 2 | .886 |
| Diversity of information sources | 15.497 ^a | 4 | .004 |

a. 0 cells (.0%) have expected count less than 5

Table 7. shows the importance of increasing the adaptive capacity of women small entrepreneurs, as well as increasing the access of small entrepreneurs to business information and capital to maintain the business continuity of small entrepreneurs. A study by Ruhyana et al. (2021) also agreed on the importance of increasing access to business information. The study explained that efforts to boost the resilience of SMEs to the Covid-19 pandemic are to increase adaptive capacity, for example through the expansion of internet signal coverage. Meanwhile, various sources of capital are closely related to the adaptive capacity of respondents because the first impact of the Covid-19 pandemic is the decline in the number of product requests from business actors due to the implementation of health protocols during the pandemic. This result is in line with the research of Hartono et al. (2021) who revealed that the provision of a new financing model provides many advantages for SMEs actors during the pandemic, especially in the financial, marketing, and product aspects, such as product development innovation and online marketing, ease of credit application, business assistance and flexible credit returns.

3.5 Relationship between adaptive capacity and adaptation level respondents to the covid-19 pandemic

The p-value that is smaller than 5% in Table 8 shows the differences in the level of adaptation of respondents based on the respondent's capacity to adapt to the Covid-19 pandemic. Respondents with higher adaptive capacity in running their business during the Covid-19 pandemic tend to be more adaptable to the Covid-19 pandemic, compared to respondents with lower adaptive capacity.

Table 8: The significance level of the relationship between adaptive capacity to the covid-19 pandemic and the adaptation level of respondents

| | Value | Df | Asymp. Sig. (2-sided) |
|-------------------|---------------------|----|-----------------------|
| Adaptive capacity | 19.320 ^a | 4 | .001 |

a. 0 cells (.0%) have expected count less than 5

This finding shows that small entrepreneurs could adapt to the Covid-19 pandemic as long as they have adaptive capacity. Nelson et al. (2007) confirmed adaptive capacity as the prerequisites needed to adapt, including social and physical elements and the ability to mobilize these elements. This condition is represented by available resources compilation and the capability of the system to respond to disturbances and includes the capacity to design and implement effective adaptation strategies to coexist with current and future events. Thus, the access of

small entrepreneurs to the required resources to adapt has to be improved to guarantee that small entrepreneurs could maintain business continuity.

4. Conclusion and recommendation

Gender characteristics, as well as access to information and business capital, were related to the adaptive capacity of small entrepreneurs in Lebak Regency to the Covid-19 pandemic. On the other hand, adaptive capacity was related to the level of adaptation of small entrepreneurs in the Lebak Regency. We recommend to the Lebak Regency Government maintain the sustainability of small businesses in its area during the Covid-19 pandemic by increasing the adaptive capacity of small entrepreneurs in Lebak Regency through:

1. Training and business assistance during the Covid-19 pandemic for women small entrepreneurs.
2. Increasing access of small entrepreneurs to sources of business development information by establishing a business development information center during the pandemic that provides information services, consultations, and disseminates its media during the Covid-19 pandemic such as brochures, leaflets, posters, and flyers.
3. Increase innovation, technology, and inspirational content related to small business development during the Covid-19 pandemic on local television.
4. Providing internet quota aid to small entrepreneurs during the Covid-19 pandemic.
5. Increasing the role of existing marketing institutions by providing training and service management assistance to small entrepreneurs.
6. Increasing access of small entrepreneurs to financial institutions through a capital loan distribution program for small entrepreneurs affected by Covid-19 by establishing cooperation with cooperatives and banks.
7. Providing capital aid for small entrepreneurs.

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