



COPING MECHANISMS OF MICROENTERPRISES DURING COVID-19 PANDEMIC IN BAYBAY CITY, LEYTE

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This study examines the different coping mechanisms adopted by microenterprises to mitigate the effect of the pandemic in Baybay City, Leyte. Using a structured survey questionnaire, a total of 138 microentrepreneurs from 12 villages or barangays in Baybay, City were interviewed. The data revealed that most of these microentrepreneurs were engaged in small retail businesses. During the pandemic, they experienced a significant reduction in their sales and incurred higher transportation costs. Most of these businesses do not have another source of income. Unfortunately, others have temporarily closed their business. Results show that most micro-entrepreneurs in Baybay have one to two coping strategies in response to disruption brought by the pandemic. Some of these strategies include selling new products such as face masks and using their other sources of income to buy necessities for their home and business. The descriptive analysis showed that female-owned microenterprises have explored more coping mechanisms than male-owned microenterprises. The regression results show that having a secondary source of income influences the capacity of microentrepreneurs to explore more coping strategies as compared to others with only one source of income. In addition, a large proportion of microentrepreneurs did not attend business-related training. Hence, it is recommended that micro-

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entrepreneurs may consider attending trainings, including risk management workshops. Microentrepreneurs also need more access to financial support and subsidies to cope with the disruption. Results of the study highlighted the importance of livelihood diversification to help manage the risk of losing a business during the pandemic. The results from this research may be used as a baseline information to provide insights for the government in crafting policies concerning managing risk during the pandemic.

Keywords: coping mechanisms, microenterprises, COVID-19 disruptions

1. INTRODUCTION

The sudden outbreak of COVID-19 had caused severe disruptions in businesses across the world, including small and large firms. As a result of economic and social disruptions, millions of people's livelihoods are put at risk, particularly microenterprises. Microenterprise owners in Malaysia, for instance, experience decline in cash reserves due to the loss of customers and restricted delivery channels during movement control orders (MCO) (Fabeil et al., 2020).

The Philippine economy suffered an abrupt drop in local and foreign demand, international trade, national production, and consumer confidence as a result of the lockdown (Shinozaki & Rao, 2021). The economy contracted by 9.5 percent for the whole of 2020 due to declines in household consumption and investment (Laforga, 2021). Moreover, the micro, small, and medium enterprises in the Philippines also suffered the brunt of the lockdowns, and the vulnerability of firms and workers to the economic impacts of the pandemic was magnified (Andal et al., 2021). The number of active COVID-19 cases in the country peaked on January 18, 2022 with 284,463 infections while the most deaths tallied on a day was on January 15, 2022 with 38,253 mortalities (Worldometer, 2023).

Micro, small, and medium enterprises (MSMEs), particularly microenterprises are considered one of the backbones of the Philippine economy (Ronquillo, 2021). Although MSMEs only provide minimal contribution to job creation because most micro and small businesses do not transition to the medium-scale category after years of operations, it is still a major source of employment, innovation, and technological changes (Cheungsuvadee, 2006). It contributes to poverty reduction by providing jobs for every Filipino household, encourages economic growth in rural and far-flung areas, improves the quality of

life of all Filipino business owners, and adds value to the local economy. However, due to the COVID-19 pandemic, microenterprises are faced with varied challenges and they struggle daily to stay financially afloat. This paper will examine at the challenges faced by microenterprises during the COVID-19 pandemic and focus on the coping mechanisms they employed in maintaining their business operation. This study will also determine the profitability status of microenterprises after employing the coping mechanisms so that policymakers can impose policies that will help sustain their survivability and operation during a crisis.

The major objective of this study is to assess the different coping mechanisms adopted by microenterprises to mitigate the effect of the pandemic in Baybay City, Leyte. Specifically, this study aims to: (1) describe the socio-economic characteristics and performance of the micro-enterprises in Baybay City during the pandemic; (2) identify the challenges faced by micro-enterprises during the early stage of the COVID-19 outbreak; (3) determine the factors affecting coping mechanisms of micro-enterprises during the COVID-19 pandemic; and (4) provide insights for policy recommendations that will help improve the coping strategies of micro-enterprises in times of pandemic.

2. LITERATURE REVIEW

According to the Department of Trade and Industry (DTI) (2021), it is recorded that a total of 957,620 business enterprises were operating in the country in 2020. MSMEs account for 99.51 percent of the total, while large enterprises account for 0.49 percent. Micro enterprises constitute 88.77 percent of total MSME establishments, followed by small enterprises (10.25 percent) and medium enterprises (10.25 percent) (0.49 percent), respectively. These MSMEs accounted for 62.66 percent of the total employment in the country. Micro-enterprises produced the greatest share (29.38 percent), closely followed by small businesses (25.78 percent), while medium businesses trailed far behind with a share of only (7.50 percent). Meanwhile, large enterprises accounted for 37.34 percent of total employment in the country. Nonetheless, as the COVID-19 pandemic continues to take its toll on the global economy, many firms are fighting to stay afloat (DTI, 2021).

According to Almeda & Basic-Pobre (2013), the majority of Filipino MSMEs (46%) are managed by their owners, especially microenterprises (55 percent). Owner-managed businesses have several advantages. The owner-manager is essentially the final decision-maker, influencing the operations and

revenues of the business. Most MSMEs also operate in niches and have direct contact with customers, which makes them more aware of customer feedback and potentially allows for better innovation than large enterprises. Furthermore, the majority (62%) of the managers who participated in the survey have been handling the business for less than five years, making them more open to developing products that will better suit the market demands.

The Republic Act No. 9501, also known as the Magna Carta for Micro, Small, and Medium Enterprises, defines MSMEs as any business activity or enterprise, whether sole proprietorship, cooperative, partnership, or corporation, engaged in industry, agribusiness, trade, or services. Microenterprises are those that have between one to nine employees with an asset value less than PHP 3,000,000. Table 1 shows the details of the classification of the enterprises.

Table 1. Capitalization of MSMEs in the Philippines

Category	Assets (in million pesos)	No. of Employees
Micro	Less than 3M	Less than 9
Small	3M-15M	10-99
Medium	15.1-1M	100-199
Large	Above 1M	200 and above

Source: (Philippine Law and Legal System, 2020)

Challenges of microenterprises during COVID-19 pandemic

The most common issues faced by micro-enterprises during the pandemic were financial, supply chain disruptions, a drop in demand, and a drop in sales and profit (MicroSave Consulting, 2020). According to Shafi et al. (2020), the majority of the participating enterprises in Sindh Province have been severely impacted by the COVID-19 outbreak. Notably, 38% of their participants reported a significant impact on their businesses (ranging from 91% to 100%). When asked about the types of issues these businesses are dealing with in the aftermath of the COVID-19 outbreak, 69.93% said they have financial issues, 47.83% said they have supply chain disruption, 44.02% said they have decreased demand, and 38.04% and 41.85% said they have decreased sales and profit, respectively. A recent study conducted by Harvard Business School also reported that many small businesses are financially vulnerable as a result of the current outbreak (Bartik et al., 2020). Moreover, a decrease in demand could be the result of a loss of customer or buyer flow. These findings imply that, in addition to other issues, the majority of MSMEs are vulnerable to financial, supply chain disruptions, and demand constraints.

According to reports, many companies stated that they were open for fewer hours during the community quarantine, and 75% of businesses reported a decline in the volume of sales per customer, with a median decline of 50% (MicroSave Consulting, 2020). Among these companies that reported a decline in quantity sales per purchaser are sari-sari stores. Studies additionally stated that most entrepreneurs believed that the pandemic had a 70-100% negative effect on their business (Parilla, 2021). The majority of micro-enterprises suffer financially due to reduced profitability and sales. At the time of the survey, nearly half of the surveyed micro-businesses (46%) were quickly closed, 22% had reduced working hours, and only 9% were working normally. The majority of respondents (76%) reported revenue, sales, and demand losses, while 19% faced supply chain challenges and 15% faced increased debt burdens or bankruptcy (Kebede et al. 2020).

Business strategies during economic downturns

People are losing their jobs and sources of income as a result of the virus, and the safety measures implemented, which require social distancing and isolating yourself from others, had a significant impact on businesses. The COVID-19 pandemic is moving quickly, causing some existing crisis plans to fail and businesses to suffer significantly. The significant drop in revenues forced them to adjust their strategies and businesses to change the way they operate. Various strategies can be used by businesses to maintain their operation/profitability through economic downturns. Employee downsizing and salary reductions are two examples. In other words, all through economic downturns, companies can either lay off workers or end their services to maintain profitability. Additionally, businesses may reduce staff compensation to stay worthwhile throughout financial downturns. Employee downsizing and wage reduction are strategies that businesses can use to create profits alternatively than losses during moments of economic downturn. During economic downturns, the UK and the US use the furlough method to protect workers.

According to Shafi et al. (2020), most of the strategies being used by businesses to overcome cash flow shortages are laying off workers and reducing staff salaries. The results of their study show that 43% of the enterprises choose to lay off employees, 12% prefer to reduce staff and 13% of the responding enterprises plan to shut down their business to partially reduce their costs and manage the cash flow shortage.

A study by Fabeil et al. (2020), found that most entrepreneurs employ multiple strategies to ensure the continuous operation of their business during a Movement Control Order (MCO). This includes shortening the supply chain through centralized synchronous distributors, producing an emerging product to meet current customer needs (customers are looking for essential foods and cleaning and sanitary products during MCO), and digitalizing marketing through mobile applications and social media, such as Facebook and WhatsApp.

In a study conducted by Andal et al. (2021), they used the International Trade Centre's (ITC) Competitiveness Grid Framework to investigate the coping strategies employed by micro, small, and medium enterprises (MSMEs) in Laguna, Philippines. According to their findings, approximately 85 % sold assets and used personal savings as part of their "retreating strategies." The majority of those who sold assets and used personal savings were micro-enterprises with fewer than five employees. Around 80% used online platforms to continue operating under "resilient strategies," or those strategies that can be considered as employing flexibility to cope. Marketing efforts were amplified for 63% of the respondents. In terms of the "agile strategies", almost all of the respondents stated that they customized or made new products to keep their businesses afloat.

Survivability of firms during economic crisis

According to MicroSave Consulting (2020), firms in every country are struggling with the inability to conduct business as usual during times of great economic turmoil. To make matters worse, several industries are experiencing decreased demand and months, if not years, of economic uncertainty. In the current pandemic, governments are correctly focusing on health issues first, and then on economic recovery once the immediate threat of the pandemic has passed. According to their findings, this survival period varies significantly across sectors and nations. However, the evidence suggests that if businesses are to survive this unexpected economic downturn, immediate government assistance is required. Firms die prematurely in all of their hypothetical scenarios, regardless of age, size, or productivity levels. They claim that a hypothetical epidemic has caused enormous economic distress, disproportionately harming exporters, who are otherwise among the most productive firms in an economy. As borders close or become more difficult to cross due to health concerns, productivity is no longer a measure of corporate success.

Factors affecting coping mechanisms of business

A study by Iddi et al. (2021) found that education and socioeconomic status were significantly related to coping. Thirty-seven percent (37%) of their study's post-secondary education participants claimed to have thrived during COVID-19. Bachelor's, master's, and doctorate degrees were represented by 44.4%, 46.4%, and 59.3%, respectively. However, there was no specific order for the economic category. Furthermore, financial performance and self-efficacy have been shown to influence coping strategy decision-making. Companies in financial distress are 3.89 times more likely to pursue a cost-cutting strategy than doing nothing. Businesses with high levels of self-efficacy are more innovative and flexible in dealing with the COVID-19 outbreak's change in business climates. Company leaders are motivated by self-efficacy to pursue a business innovation strategy that is 3.09 times more effective than doing nothing. Leaders with a strong sense of self-efficacy are more proactive, optimistic, and willing to take high risks to maintain business performance. Furthermore, managers' perceptions of COVID-19 cases and the government were not determinants of coping strategy decision-making. It is due to the difficulty in predicting the end of the pandemic and governments are hesitant to put in place concrete measures to support business enterprises.

According to Akande et al. (2011), the size and age of micro-enterprises affect business performance, as the relationship was both positive and significant. This revealed that the older the enterprise, the better its performance and that the larger the enterprise (the number of employees), the better its performance. Furthermore, the microentrepreneurs' access to finance had a significant impact on their performance. The majority of the micro-entrepreneurs surveyed performed very poorly because they did not have access to external funds.

3. THEORETICAL AND CONCEPTUAL FRAMEWORK

Coping mechanisms are defined in various aspects. In psychological terms, these are the strategies and rules that people follow in dealing with stress and burnout that will impact their overall lifestyle (Chowdhury, 2019). Serriño and Ratilla (2021) reported local response coping mechanisms adopted by working adults associated with the disruptions brought by the pandemic. Their approach was qualitative and we incorporated in our study and conducted quantitative approach. The coping mechanism is a function of several socio-demographic

factors, business characteristics, economic conditions, and capacity buildings. We can express it in the model below:

$$Y_i = f(X_1, X_2, X_3, \dots, X_n)$$

where Y = represents the dependent variable for the number of coping mechanisms employed by microenterprises during the COVID-19 Pandemic. The variables $X_1, X_2, X_3, \dots, X_n$, represents various socio-demographic factors, business characteristics, economic conditions, and capacity buildings that are hypothesized to influence the coping mechanisms of microenterprise owners.

Socio-demographic factors refer to the individual characteristics of the microenterprises owners that affect their decision as to what coping mechanisms. Business characteristics, on the other hand, refer to the type of business, age of business, location of the business, and the number of employees. While the economic conditions are the assistance from the government, and the capacity building is the seminars/training attended by the micro-enterprise owners. Figure 1 shows the schematic diagram showing the factors influencing the coping mechanisms of microenterprises.

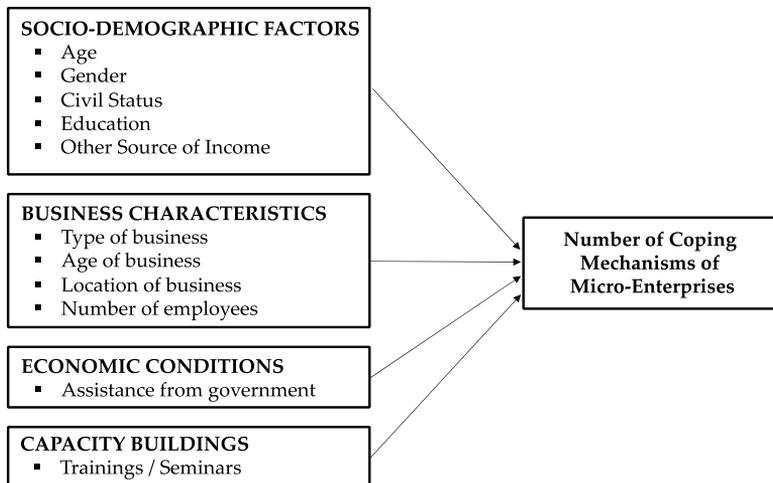


Figure 1. Diagram showing the factors influencing the coping mechanisms of micro-enterprises.

We highlight some of the characteristics that were found out to be significant predictors of coping mechanisms such as age, gender and education of the owners. Many previous studies have identified age as an important demographic factor in understanding a person's entrepreneurial behaviors and intentions (Reynolds, 1997). The majority of active entrepreneurs, according to research, are over the age of 25 (Lévesque & Minniti, 2006; Reynolds, 1997).

Several studies have been conducted to investigate the role of gender in entrepreneurship and venture success. According to some of these studies, males were more engaged in entrepreneurship than females (Grilo & Thurik, 2005; Verheul et al., 2004). Many other studies have found that gender is an important predictor of entrepreneurial behavior and intention, with males having higher entrepreneurial intentions than females (Crant, 1996; Wilson et al., 2007; Davidsson, 1995; Tkachev & Kolvereid, 1999). Females in developing countries, on the other hand, face greater challenges in engaging in entrepreneurship because they want to improve their family's living standards, which is impossible to do while working low-wage jobs. This is why women are willing to work for themselves (Van der Kuip & Verheul, 2004).

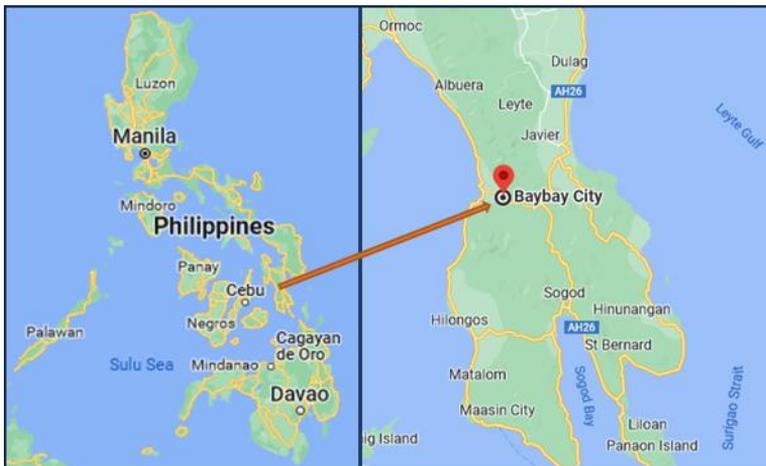
Formal education can influence the likelihood of entrepreneurship by (1) developing skills, (2) granting credentials, and (3) categorizing people based on ambition and assertiveness. However, the link between education and entrepreneurship is not always obvious (Bates, 1997). For example, as the labor market in the United States has become more service- and information-based, education has grown in importance in facilitating new business formation in some, but not all, industries. In knowledge-based industries such as technology, finance, real estate, and insurance, education is relevant to business acumen. Even if the knowledge and skills gained in formal education are not directly applicable to entrepreneurship, educational achievements can be an indicator of an individual's ambition, achievement motivation, and endurance, as well as their social class background. As a result, formal education allows people to gain knowledge and skills, earn credentials that are valued by others in the business community, and sort people based on ambition and assertiveness. Small business owners in trades such as construction or carpentry, on the other hand, have little need for advanced formal education. They rely on their technical knowledge and on-the-job experience instead. They offer no hypothesis regarding educational attainment due to the ambiguity regarding education's potential value to an entrepreneurial entry (Kim et al., 2006).

4. METHODS

Area of the study

This study was conducted in the 12 barangays of Baybay City, Leyte. Baybay is located on Leyte's western coast, directly in front of the Camotes Islands, which are bounded by the Cebu Camotes Sea, and is beyond Cebu City, the Queen City of the South (Figure 2).

Baybay is one of the largest cities in the Eastern Visayas region in terms of land area, with a total land area of 46,050 hectares. It is divided into 92 barangays, 24 of which are urban and 68 of which are rural.



Source: Google Map, 2022

Figure 2. Location of the study.

Sampling procedure

The respondents of this study are the microenterprise owners of Baybay City, Leyte. In getting the sample, the researcher will use a non-probability sampling technique specifically purposive sampling. And the researcher will determine the sample size using Slovin's Formula;

$$N_0 = \frac{N}{1+Ne^2}$$

where,

- n = the sample size
- N = the total number of sampling units in the population
- e = the margin of error

Based on the data from the Department of Trade and Industry, the total population of the microenterprises operating in the 12 selected barangays is 1,164. Using Slovin’s formula with an 8% marginal error, the sample size is 138 microenterprises (Table 2). The researcher used non-proportionate sampling to determine the sample size per barangay. See the calculation below.

Calculation for sample size:

$$n_0 = \frac{N}{1 + Ne^2}$$

$$n_0 = \frac{1,164}{1 + (1,164)(0.08)^2}$$

$$n_0 = \frac{1,164}{8.4496}$$

$$n_0 = 138$$

Table 2. List of total microenterprises in the 12 selected barangays of Baybay City, Leyte

Name Of Barangay	Total Number of Micro-Enterprises	Sample Size
POBLACION ZONE 1	165	12
POBLACION ZONE 10	341	12
POBLACION ZONE 11	221	12
CANDADAM	84	12
CARIDAD	81	12
PANGASUGAN	56	12
HIPUSNGO	57	11
PLARIDEL	49	11
POMPONAN	33	11
AMGUHAN	35	11
CIABU	21	11
MAKINHAS	31	11
Total	1164	138

Source: Baybay City (2021)

Data collection, processing and analysis

The researcher used primary data collected through a structured questionnaire. The survey questionnaire contained crucial information to gather the desired data for the study. The questionnaire was developed in English but was asked using the local dialect for the respondents to better understand the questions. Section 1 of the survey questionnaire contained questions/items on the socio-demographic profile of the business owners. Section 2 covered the basic

information about the business such as the age of the firm and its size of the firm. Section 3 collected information about challenges faced by micro-enterprises during the COVID-19 pandemic. Section 4 documented the businesses coping mechanisms and government measures of micro-enterprises during the COVID-19 pandemic. Section 5 asked about the seminars/training attended by micro-enterprise owners.

In collecting the data, permission was sought from the thesis committee. A letter was sent to the Department of Trade and Industry in Baybay City, Leyte formally asking for information about the number of registered micro-enterprises operating in the city. Informed consent was solicited from the respondents. The respondents were informed about the objectives of the research and that their participation is voluntary and collected information will be kept confidential and solely used for research purposes.

The researcher tabulated and analyzed the gathered data using SPSS, STATA, and Excel. Descriptive statistics will be used in determining the frequency counts, percentage, and mean of the gathered data.

Meanwhile, the factors affecting coping mechanisms of micro-enterprises were determined using multiple linear regression. Multiple linear regression helps to identify the effect of independent variables on the dependent variable. Multiple regression was used in this study to determine what factors from the independent variables might influence coping mechanisms.

To identify the factors affecting the coping mechanisms of micro-enterprises, the econometric postulated as follows:

$$\begin{aligned}
 COPMECH_i = & \beta_0 + \beta_1 AGE_i + \beta_2 FEMALE_i + \beta_3 MARRIED_i + \beta_4 EDUC_i \\
 & + \beta_5 OTH_SOURCE_INC_i + \beta_6 BIZ_TYPE_i + \beta_7 BIZ_AGE_i \\
 & + \beta_8 BIZ_LOC_i + \beta_9 NUM_EMP_i + \beta_{10} GOV_SUP_i + \beta_{11} BIZ_SEM_i \\
 & + \mu
 \end{aligned}$$

where:

COPMECH	=	is the coping mechanism of business measured as the count of responses per respondents
AGE	=	is the age of microenterprise owners
FEMALE	=	captures the sex of the respondent codes as 1 is for female and 0 is male
MARRIED	=	is the civil status of micro-enterprise owners; where 1 is married and 0 otherwise
EDUC	=	is the educational attainment of business owners measured as the number of years
OTH_SOURCE_INC	=	is the other source of income for micro-enterprise owners aside from their business

BIZ_TYPE	=	is the type of business; where 1 is a sari-sari business (most frequent) and 0 otherwise
BIZ_AGE	=	is the age of business or how long the business existed
BIZ_LOC	=	is the location of business; where 1 is rural and 0 is urban
NUM_EMP	=	is the number of employees; where 1 has employees and 0 has no employees
GOV_SUP	=	is the government support received by the micro-entrepreneurs for their business
BIZ_SEM	=	is the number of seminars or trainings attended by micro-enterprise owners before establishing their own business.
μ	=	is the usual residual term

5. RESULTS

Socio-demographic characteristics of micro-enterprise owners

This section discusses the socio-demographic characteristics of the microenterprise owners such as age, civil status, gender, educational attainment, years of experience in handling a business before pursuing their own, and their other source of income. Results are presented in Table 3. The age of microenterprise owners was categorized into 4 classifications namely: teens (19 below), young adults (20-39), middle-aged (40-59), and senior citizens (60 and above). Seventy-three out of 138 respondents belong to the middle age category comprising 52.9% of the total respondents. This implies that most of the microenterprise owners are 40-59 years old. The average age of all respondents is 47 years old. In terms of their gender, most of the respondents were female (83.3%), and 106 out of 138 respondents were married comprising 78.6% of the total respondents.

The educational attainment of microenterprise owners was categorized into 6 classifications namely: elementary level, elementary graduate, high school level, high school graduate, college level, and college graduate. The result shows, that 48 out of 138 respondents were high school graduates (34.8%), 27 respondents were elementary graduates (19.6%), 20 respondents were high school level (14.5%), 19 respondents were college graduates (13.8%), 12 respondents were elementary level and college level (8.7%), respectively. In terms of their experience in handling a business before pursuing their own, 97 out of 128 respondents have no experience (70.3%), 17 respondents have 6-10 years of experience, 16 respondents have more than 15 years of experience, while 5 respondents have 1-5 years of experience, and only 3 respondents have 11-15 years of experience.

Table 1. Socio-demographic profile of microenterprise owners

Variables	Categories	Count	%
Age Groups	Teens (Below 19)	0	0.00
	Young adults (20-39)	39	28.30
	Middle age (40-59)	73	52.90
	Senior citizen (60 and above)	26	18.80
	Total	138	100
	Mean	47	
Sex	Male	23	16.70
	Female	115	83.30
	Total	138	100
Civil Status	Single	16	11.60
	Married	106	76.80
	Widowed	10	7.20
	Separated	2	1.40
	Live in	4	2.90
	Total	138	100
Educational Attainment	Elementary level	12	8.70
	Elementary graduate	27	19.60
	High school level	20	14.50
	High school graduate	48	34.80
	College level	12	8.70
	College graduate	19	13.80
	Total	138	100
Years of Experience	<1	97	70.30
	1-5	5	3.60
	6-10	17	12.30
	11 -15	3	2.20
	>15	16	11.60
	Total	138	100
	Mean	0	
Other source of income	Copra	24	17.40
	Spouse Income	8	5.80
	Salary	5	3.60
	Piggery business	5	3.60
	Others	16	11.59
	None	80	58.00
	Total	138	100

For their other sources of income, 80 out 138 respondents have no other source of income, accounting for 58.0% of all respondents. Twenty-four

respondents have copra as their other source of income (17.4%), eight respondents have their spouse's income (5.8%), and five respondents stated that their salary and piggery business (3.6%) are their other sources of income. While 16 other respondents have other sources of income, such as selling beauty products, having a vegetable garden, working online, and so on.

Economic profile of microenterprises

The profile of microenterprises is summarized in Table 4. More than half of 138 respondents have owned a sari-sari store comprising 58.0% of the total respondents. The majority of microenterprises belong to the retail industry and were self-owned businesses.

Table 4. Micro-enterprise characteristics

	Variables Categories	Count	%
Type of micro-enterprises	Sari-Sari Store	80	58.00
	Fruits and Vegetable Store	26	17.40
	Food Stall	12	8.70
	Fish and Meat shop	6	4.30
	Rice store	3	2.20
	Others	11	8.00
	Total	138	100
Sector/Industry	Retail industry	111	80.40
	Food industry	20	14.50
	Services industry	2	1.40
	Wholesale and Retail industry	4	2.90
	Others	1	0.70
	Total	138	100
Ownership	Sole proprietorship	131	94.90
	Partnership	7	5.10
	Total	138	100
Number of years operating	3-5 years	70	50.70
	6-8 years	32	23.20
	9-11 years	28	20.30
	12 years and above	8	5.80
	Total	138	100
	Mean	6.47	
Number of employees	0	123	89.10
	1	9	6.50
	2-4	5	3.60
	5-7	1	0.70
	Total	138	100
	Mean	0	

Furthermore, 70 out of 138 microenterprises are in operation for less than 5 years (50.7%), 32 microenterprises are in operation for 6-8 years (23.2%), 28 microenterprises are in operation for 9-11 years (20.3%), and 8 microenterprises were operating for more than 12 years (5.8%) (Table 4). Nearly all microenterprises have no employees since most of them are self-owned. They only got help from their children voluntarily and some from their relatives. While 15 of the microenterprises have employees with a salary between 250-350 PhP per day.

Microenterprises initial capitalization

Figure 3 shows the source of capital of the micro-enterprise owners in establishing their business. As shown in Figure 3, 67 out of 138 respondents get their capital from personal savings comprising 48.55% of the total respondents, 60 respondents availed loans for capital (43.48%), and 11 respondents were from their children, and support from NGOs/Government, (5.07%) and (2.90%), respectively. As for the amount of their starting capital, Figure 4 shows that majority of microenterprises can start a business with an initial amount between PHP 5001-15000.

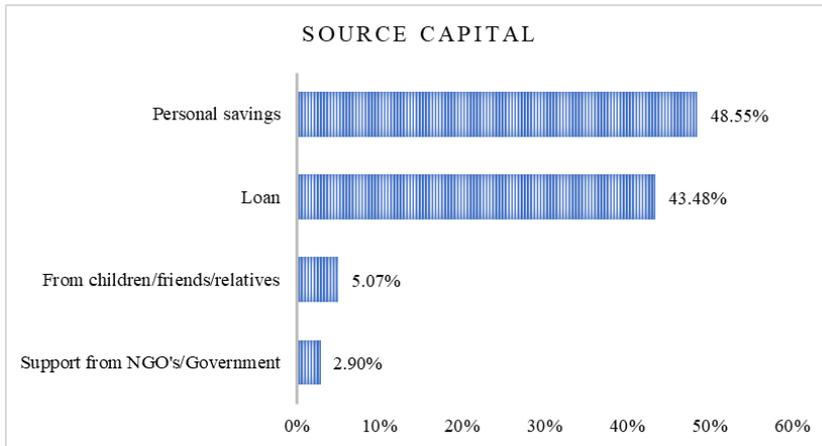


Figure 3. Owner’s source of capital

Status of microenterprises during COVID-19

Table 5 shows that the majority of microenterprises (84.8%) were affected by the sudden outbreak of coronavirus comprising 8. Out of 117 micro-enterprises that were affected, only 24 of them stopped their business operation (17.4%), implying that most of the respondents continued their business operations amidst

the pandemic. However, for that 17.4% of enterprises that stopped operating, it only took less than 3 months for the 12 micro-enterprises to reopen, 7 micro-enterprises took more than 10 months, and 5 micro-enterprises took 4-6 months to reopen the business. Eighty-four out of 138 respondents operated as usual comprising 60.87% of the total respondents, 51 respondents were still operating with reduced hours (36.96%), and only 3 respondents operated with restrictions.

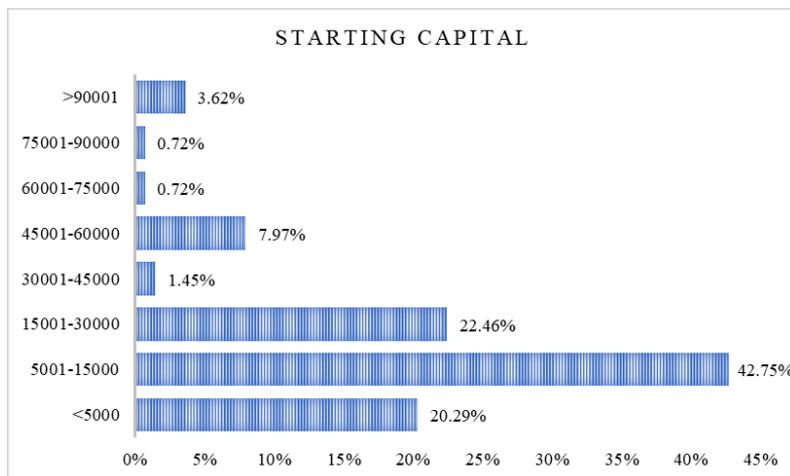


Figure 4. Starting capital of micro-enterprises

Table 5. Business operation of micro-enterprises

Operational Status		Count	%
Does COVID-19 affect your business	Yes	117	84.8
	No	21	15.2
	Total	138	100
If yes, stop business operation	Yes	24	17.4
	No	93	82.6
	Total	117	100
Months took to reopen	01-Mar	12	50
	04-Jun	5	20.8
	07-Oct	0	0
	11 and above	7	29.2
	Total	24	100
Current operational status	Operating as usual	84	60.87
	Operating with reduced hours	51	36.96
	Operating as usual w/ restrictions	3	2.17
	Total	138	100

Economic challenges encountered by micro-enterprises

This section discusses the economic challenges encountered by micro-enterprises during the early stage of the COVID-19 pandemic. Since this is multiple responses, 234 responses were gathered from the 138 respondents. Figure 5 shows the percentage distribution of the respondent’s total number of responses. About 48.72% of the respondents experienced reduced on-demand/sales, 15.81% of the respondents experienced an increase in transportation costs, 14.10% encountered problems in obtaining the materials needed, 8.55% experienced temporary closure of the business, 3.85% experienced an increase in customers debt, 0.85% experience reduced in cash reserve, while 7.70% encountered other economic challenges such as increasing prices of goods, lack of capital, out of supply, slow delivery, and their competitors (Figure 5).

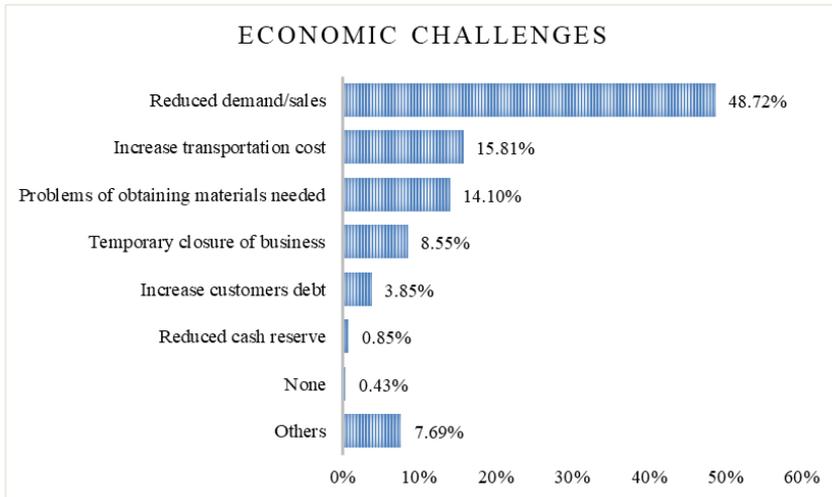


Figure 5. Economic challenges met by micro-enterprises

Table 6 shows the type of micro-enterprises that experience such economic challenges. Out of the 48.72% of micro-enterprises that experience reduced demand/sales were 65 sari-sari stores, 25 fruits and vegetables, 11 food stalls, 4 fish and meat shops, and 8 other micro-enterprises. Of the 15.81%, that experience increase in transportation costs, 35 were sari-sari stores and 2 were fruits and vegetable stores. Of the 14.10% that encountered problems obtaining materials needed, 11 were sari-sari stores, 8 fruits and vegetables, 4 food stalls, 3 fish and meat shops, 1 rice store, and 6 other micro-enterprises.

Table 6. Crosstabulation of economic challenges and business type

Economic Challenges	Business Type (Count)						Total
	Sari-sari store	Fruits and Vegetables store	Food stall	Fish and Meat shops	Rice store	Others	
Reduced demand/sales	65	25	11	4	0	8	114
Increase transportation cost	35	2	0	0	0	0	37
Problems of obtaining materials needed	11	8	4	3	1	6	33
Temporary closure of business	7	6	3	0	0	4	20
Increase customers debt	8	1	0	0	0	0	9
Reduced cash reserve	0	0	0	0	2	0	2
None	0	0	0	0	0	1	1
Others	1	5	6	2	0	4	18

Of the 8.55% that experienced temporary closure of business, 7 were sari-sari stores, 6 fruits and vegetables, 3 food stalls, and 4 other micro-enterprises. Of the 3.85% that experienced an increase in customer debt, 8 were sari-sari stores, and 1 is fruits and vegetables. Of the 0.85% that experienced reduced cash reserve, 2 were rice stores. Of the 0.43% that do not experience any economic challenges are from other micro-enterprises. Of the 7.69% that experienced other economic challenges such as increased prices of goods, lack of supply, slow delivery, etc. 1 is a sari-sari store, 5 fruits and vegetables, 6 food stalls, 2 fish and meat shops, and 4 other micro-enterprises.

Figure 6 below illustrates the greatest fear of micro-enterprise owners over the coming years if the pandemic persists. Based on the graph, the majority of the respondents considered the closure of business to be their greatest fear comprising 38.74% of the total respondents. About 37.68% of the respondents fear a loss of revenue, 13.04% fear that they will be unable to continue operating their business due to new government restrictions, 9.42% fear business bankruptcy, and 0.72% of the respondents' fears having problems obtaining materials needed and access to liquidity or cash.

Coping mechanisms of micro-enterprises during COVID-19

To deal with the current economic downturn, micro-enterprises adopted various coping mechanisms/strategies to stay afloat. Remarkably, Figure 7 shows that the majority of the respondents sell new products that are extremely crucial

for the current needs of the people such as face masks, face shields, etc. comprising 42.50% of the total respondents. Twenty percent (20%) of the respondents used the profit of their secondary source of income to supply the other one, 12% of respondents employed the on and off operation techniques, 5% sought new suppliers, particularly fruits and vegetables, fish and meat shops, and food stall, 3% chose to sell their business online, 2% reduced their employees' working hours and laid off their workers, and 1.50% customized their products and relocated their business (Figure 7). Thus, based on the results, the coping strategies adopted by the respondents seemed to have worked well in general.



Figure 6. The greatest fear of micro-enterprises over the coming years

According to Busch (2020), businesses that are adaptive and reframe to the current situation have a better chance of survival. Reframing is the process of viewing a situation and our abilities in a new light. Thus, the 42.50% of micro-enterprises mentioned above that sell new products embrace the unexpected in novel ways. For example, instead of a sari-sari store or a fruits and vegetable store closing, they began selling demand products, particularly in barangays. Some sari-sari stores sell frozen foods, gasoline, and so on. As a result, despite the pandemic, they were able to make a profit and remain operational.

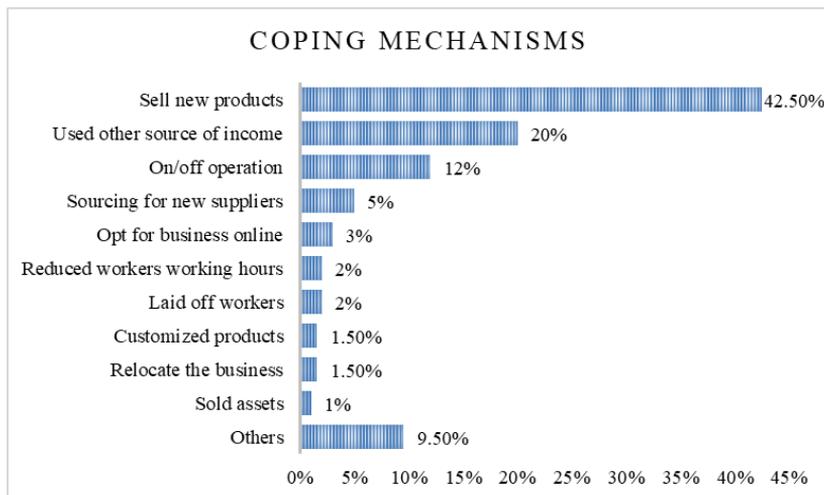


Figure 7. Coping mechanisms employed by micro-enterprises

Table 7 shows the number of coping mechanisms employed by different types of micro-enterprises. Based on the table, 40 of the sari-sari enterprises used two coping mechanisms, 34 used one coping mechanism, and only 6 of the sari-sari enterprises used three coping mechanisms. In terms of the fruits and vegetable section, 18 of them used one coping mechanism, 7 used two coping mechanisms, and only 1 used three coping mechanisms. Also, 5 food stall enterprises used one to two coping mechanisms, and 2 of them used three coping mechanisms. Only one of the micro-enterprises in the fish and meat shop category used two coping mechanisms while the other 5 employed one. Furthermore, 3 enterprises that belong to the rice store category only used 1 coping mechanism, while the other 6 enterprises used one coping mechanism, and the other 5 used two coping mechanisms to sustain their business.

Table 7. Number of coping mechanisms employed by different types of micro-enterprises

Number of Coping Mechanisms	Business Type						Total
	Sari-Sari Store	Fruits & Vegetables	Food Stall	Fish and Meat shop	Rice Store	Others	
One	34	18	5	5	3	6	71
Two	40	7	5	1	0	5	58
Three	6	1	2	0	0	0	9
Total	80	26	12	6	3	11	138

Financial status of micro-enterprises prior to and during lockdown

Table 8 shows that 50 sari-sari enterprises are profitable prior COVID-19 outbreak, however, currently, only 17 sari-sari store remains profitable which implies a percentage change or decrease of 66% of the profitable sari-sari store. Moreover, 30 sari-sari stores were at the break-even point prior and become 56 during COVID-19, implying a 56% increase of sari-sari stores that are at the break-even point. While 7 of the sari-sari enterprises were losing money during COVID-19. In terms of the fruits and vegetable section, 17 were profitable prior and become 13 during COVID-19 which implies a 24% decrease in profitable fruits and vegetable stores. On the other hand, only 9 fruits and vegetables were at the break-even point prior and become 13 during COVID-19, implying a 44% increase in the fruits and vegetable stores that are at a break-even point.

Table 8. Effects on sari-sari store, and fruits and vegetables

Financial Status	Type Of Business					
	Sari-Sari store (%)			Fruits and Vegetable (%)		
	Prior	Current	%Δ	Prior	Current	%Δ
Profitable	50	17	-66	17	13	-24
Break-even	30	56	87	9	13	44
Was losing money	0	7	-	0	0	0
Total	80	80		26	26	

$$\% \Delta = \text{Current-prior/prior} * 100$$

Table 9 shows that there were 11 profitable food stalls before COVID-19 however, currently, only 6 food stall enterprises remain profitable which implies a 45% decrease in profitable food stalls. Additionally, only 1 food stall was at the break-even point prior and became 6 during COVID-19, implying a 500% increase in the food stall that was at the break-even point. In terms of fish and meat shops, 6 were profitable prior to and only 5 during COVID-19 which implies a 17% decrease in profitable fish and meat shops. While in the break-even point, the percentage cannot be determined since no fish and meat shop was at the break-even prior to COVID-19. But the table shows that there is 1 enterprise from a fish and meat shop that shifts its financial status to break even during COVID-19.

Table 10 shows that there was 3 profitable rice store prior to COVID-19 and only 2 remain profitable during COVID-19 which implies a 33% decrease in profitable rice store. Also, there is 1 rice store that shifts its financial status to break even during COVID-19. However, the percentage cannot be determined since no

rice store was at break-even prior to COVID-19. Additionally, only 7 other enterprises were profitable prior and become 3 during COVID-19, implying a 57% decrease of other businesses that were profitable. While in the break-even point, there were 4 other businesses prior and shifted to 8 during COVID-19, implying a 100% increase of other businesses that were at the break-even point.

Table 9. Effects on food stalls, and fish and meat shops

Financial Status	Type Of Business					
	Food Stall (%)			Fish And Meat Shop (%)		
	Prior	Current	%Δ	Prior	Current	%Δ
Profitable	11	6	-45	6	5	-17
Break-Even	1	6	500	0	1	-
Was Losing Money	0	0		0	0	
Total	12	12		6	6	

$$\% \Delta = \text{Current-prior/prior} * 100$$

Table 10. Effects on rice store, and other businesses

Financial Status	Type of Business					
	Rice Store (%)			Others (%)		
	Prior	Current	%Δ	Prior	Current	%Δ
Profitable	3	2	-33	7	3	-57
Break-even	0	1	-	4	8	100
Was losing money	0	0		0	0	
Total	3	3		11	11	

$$\% \Delta = \text{Current-prior/prior} * 100$$

Government support for micro-enterprises during COVID-19

Government assistance, such as business subsidies and tax breaks, was listed as one of the most desired measures by MSMEs. Direct financial assistance from the government can be provided to microentrepreneurs. In fact, the government has set aside initial funding for MSMEs as part of its 2020 COVID-19 Rehabilitation Support Program.

Table 11 shows that the majority of the respondents have not received any government support for their business, accounting for 90.6% of the total respondents, while only 13 respondents received cash assistance, a sari-sari store package worth Php 5,000.00, and was able to avail loan, accounting for 9.4% of the total respondents. Out of 125 respondents (who have not received COVID-19-related assistance), 109 stated that they were not able to receive government support because they don't have enough access to information and benefits from

COVID-19-related assistance programs for businesses comprising 87.2% of the 125 respondents. There are also 12 respondents stated that it is not easy to avail COVID-19 related assistance programs, comprising 9.6% of the 125 respondents. While the other 3 respondents which have knowledge about COVID-19 related assistance just ignored it (2.1%), and the other 1 is not yet approved (0.7%) to avail such assistance.

According to Parilla (2021), there are various government programs and support available for micro-enterprises; however, recipients of these programs appear to be only moderately aware. They may be uninterested, have not experienced it, or are dissatisfied with the various benefits provided by the government. It can also be assumed that the government can do more to widely promote the intended support for micro-business enterprises in terms of technology transfer, management, marketing, finance, and taxation.

Table 11. Government support received by micro-enterprises

Government Support		Count	%
Received COVID-19 related assistance for business	No	125	90.6
	Yes	13	9.4
	Total	138	100
Type of COVID-19 related assistance?	Cash assistance	5	3.6
	Sari-Sari store package	7	5.1
	Loan	1	0.7
	Total	13	9.4
If no, state the reason	Do not have access to information and benefits from COVID-19 related assistance program	109	87.2
	It is not easy to avail COVID-19 related assistance programs	12	9.6
	Others	4	3.2
	Total	125	100
Others, (specify)	Don't try to avail	3	2.1
	Not yet approved	1	0.7

Seminars or training attended by micro-enterprises owners

Table 12 shows that the majority of the respondents have not attended business seminars/training before running their business comprising 85.5% of the total respondents, while only 14.5% of respondents were able to attend business seminars/training. These respondents attended from the Bureau of Internal Revenue, Department of Agriculture, Department of Trade and Industry,

networking, and the other one attended business training about SWOT analysis. However, their opinions contradict their experienced because 92.0% said that attending business seminars/training is very helpful for business owners in managing their businesses in times of crisis. One of the reasons is they weren't aware of how helpful it is in the long run. While 1.4 % and 6.5% stated that attending business seminars/training is not helpful at all and believed that establishing a business is just about having strategic owners.

Table 12. Seminars/training attended

Seminars/Training		Count	%
Attended seminars/training establishing business	No	118	85.5
	Yes	20	14.5
	Total	138	100
If yes, in what agencies?	BIR	1	0.7
	DA	3	2.2
	DTI	14	10.1
	Networking	1	0.7
	SWOT (Business training)	1	0.7
Does attending seminars/trainings business owners in handling their business?	No	11	8.0
	Yes	127	92.0
	Total	138	100
How helpful?	Not helpful at all	2	1.4
	Less helpful	9	6.5
	Neutral	19	13.8
	Moderately helpful	30	21.7
	Very helpful	78	56.5

Multiple regression models on the factors affecting coping mechanisms

This study used a multiple regression model to determine the factors that significantly influence the number of coping strategies performed by the micro-enterprises. The results show that 85.26% of the variation of the dependent variable, coping mechanisms, is explained by the variables included in the model. The regression coefficients show that gender, civil status, education, other sources of income, type of business, business age, and the number of employees positively relate to coping mechanisms. However, only gender, other sources of income, and type of business significantly affect coping mechanisms (Table 13). The significant relationship of gender indicates that micro-enterprises headed by female has higher coping mechanisms by 0.14 in comparison to male. According to Sanberg (2003), female entrepreneurs were more articulate than males. In effect, they were

better at describing problems that both males and females faced. This ability to communicate more effectively than males on some issues is consistent with research identifying female openness and communication strengths.

Table 13. Multiple regression models of dependent variables

Variables	(1) coping mechanisms
Age	-2.76e-05 (0.00196)
Female	0.141** (0.0608)
Civil status	0.0451 (0.0511)
Education	0.000473 (0.00804)
Other source of income	0.148*** (0.0494)
Sari-sari business	1.112*** (0.0442)
Business age	0.00330 (0.00752)
Business location	-0.0126 (0.0520)
Number of employees	0.0427 (0.0467)
Government support	-0.0211 (0.0784)
Business seminars	-0.0817 (0.0697)
Constant	0.725*** (0.165)
Observations	138
R-squared	0.853

Furthermore, micro-entrepreneurs with other sources of income, coping mechanisms is higher by 0.15 compared to those who do not have other sources of income. This implies that businesses that rely on multiple sources of income and critical items to keep their operations running during the pandemic thrived. Instead of panicking or making hasty, short-term decisions that will harm the

business in the long run, smart business owners considered how to leverage their existing resources and adjust their capabilities in the current environment (Wingo,2020). The type of business also significantly affects coping mechanisms having a p-value of less than 0.05. Results suggest that micro-enterprises like sari-sari store have higher coping mechanisms by 1.12 compared to other micro-enterprises (Table 13). Although the retail industry was one of the industries affected by the pandemic, it was also able to withstand the situation. People just run there for every little cooking ingredient and personal essentials because the sari-sari store has almost everything needed by the nearby households. The sari-sari store would remain the most efficient business unit in terms of reducing people's movement when purchasing the necessities (Juego, 2020).

6. SUMMARY, IMPLICATION AND RECOMMENDATIONS

The study was conducted in the 12 barangays of Baybay City, Leyte, namely; Amguhan, Ciabu, Makinhas, Candadam, Caridad, Pangasugan, Hipusngo, Pomponan, Plaridel, Zone 1, Zone 10, Zone 11. This study aimed to identify coping mechanisms adopted by micro-enterprises to mitigate the effect of the pandemic in Baybay City, Leyte.

The primary data collected consisted of five sets; the first was the socio-demographic profile of micro-enterprise owners, such as age, sex, civil status, experience, and other sources of income. The second set was the micro-enterprises profile such as type of business, location of the business, age of business, number of employees, source of capital, initial capital, operational status, and financial status. The third set was the challenges met by micro-enterprises during COVID-19, the fourth set was the coping mechanisms employed by micro-enterprises during an economic downturn, and the fifth was the government support received by micro-enterprises during a pandemic. The secondary data collected consisted of the list of barangays and the list of micro-enterprises.

Descriptive statistics such as frequency counts, percentage, and mean were used to describe the coping mechanisms of micro-enterprises and summarize their socio-demographic profile, challenges met, and government support received during COVID-19. Multiple linear regression was used to determine the factors affecting the coping mechanisms of micro-enterprises. Findings on the socio-demographic characteristics of micro-enterprise owners reveal that the average age of micro-entrepreneurs was 47. Most of them have no experience handling a business before pursuing their own and no other source of income.

Most of the respondents were female and married. Also, nearly half of the respondents were high school graduates.

Meanwhile, the results show that the most common type of businesses was sari-sari stores, and almost all of the micro-enterprises were sole proprietors or self-owned businesses. Of the total population, the majority belonged to the retail industry and were operating between 3-5 years. The average age of the micro-business was 7. Moreover, the respondent's capital was from their savings with an average amount of Php 18,677.00.

The majority of micro-enterprises were affected by the sudden outbreak of coronavirus, and there were a few who stopped their business operation. Currently, all of the micro-enterprises are operating as usual. However, most of the respondents experienced reduced demand/sales during COVID-19. To deal with the current economic downturn, most respondents sell new products that are highly crucial to the current needs of the people, such as face masks and face shields.

Results revealed further that most of the micro-enterprises we were able to cope with during COVID-19 were just at the break-even point. This implies that the strategies they employ are not that effective but help them thrive and stay in the market. This research also found that most of the respondents did not receive any government support because they do not have access to information and benefits from COVID-19-related assistance programs for businesses. Moreover, most respondents have not attended business seminars/training before running their business.

The results of the multiple linear regression revealed that sex, other sources of income, and type of business significantly affect coping mechanisms. However, civil status, education, business age, and the number of employees have a positive relationship but are statistically insignificant.

Implication

Based on the results, all of the micro-enterprises experienced economic challenges during the early stage of the pandemic. One of the common challenges they met was reduced demand/sales. To deal with this economic downturn, micro-enterprises employed different strategies or coping mechanisms for their business to thrive, and most of them sold new products. The micro-enterprises adopted various coping mechanisms to mitigate the adverse impact of the disruptions brought by the COVID-19 pandemic. Several micro-enterprises reported losses in their operations, and some were able to withstand the negative impact of the

pandemic. Aside from selling new products, micro-enterprises also used their other source of income, engaged in on and off business operations as a source for new suppliers, and opted for business online.

Moreover, those who have employees reduced the working hours of their workers and laid-off workers. Some micro-enterprises also customized their products, relocated their business, and sold assets. Some were only selling on-demand and affordable products. However, looking at their financial status, most micro-enterprises were just at the break-even point. This financial condition means there is a higher possibility that the coping mechanisms they employed might not be effective in the long run when the pandemic persists.

The results of the multiple regression further show that gender, particularly females, other sources of income, and type of business, particularly sari-sari stores, significantly affect coping mechanisms. This result implies that micro-enterprises headed by a female are more likely to cope with COVID-19. Micro-entrepreneurs that also have multiple resources or other sources of income are more likely to cope with COVID-19 compared to enterprises with no other income sources. One of the main reasons is that they can use the profit from their other source of income to sustain the other one. Lastly, the sari-sari store is more likely to cope with COVID-19 compared to other businesses. One reason for this is that the sari-sari store is convenient for people living in barangays, especially if they are far from the city.

Based on the results, this research recommends that the government improve the dissemination of information on micro-enterprises assistance programs. Including this information, the campaign encourages microentrepreneurs to attend business management training. The training also needs to promote sustainable livelihood programs and techniques for livelihood diversification. This initiative is viable in collaboration with the local government units (LGUs) and the academe.

Lastly, this study recommends that MSMEs, LGUs, and other relevant sectors in the government should start exploring cost-effective coping strategies and best management practices during a pandemic.

Research limitations

This study acknowledges some research limitations. Hence, this study recommends increasing the sample size and adding more variables that might be significant to the coping mechanisms of micro-enterprises. These relevant

variables may include household size, household income, expenditure and the monthly income of a business.

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