

# THE EFFECTS OF COVID-19 PANDEMIC ON THE CO-OPERATIVE SECTOR IN CALABARZON, PHILIPPINES

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## ABSTRACT

*Like any business enterprises, co-operatives cannot escape from the adverse impacts of the COVID-19 pandemic. Any disruptions brought about by the pandemic can negatively affect the business operations of co-operatives. This study reports the nature and extent of the effects of COVID-19 pandemic on 77 co-operatives in the Calabarzon region of the Philippines. The data were analysed using descriptive and inferential analyses. Chi-square test of independence was used to examine the association between co-operatives' net surplus and two factors, the COVID-19 pandemic and whether or not co-operatives had a business continuity plan (BCP). The results revealed that most of the co-operatives had been severely affected by the pandemic. Among other things, co-operatives experienced several encumbrances, particularly affecting the supply chain, cash flow, and workforce. All the respondents felt that financial and technical assistance were needed to help co-operatives to weather the effects of the pandemic. The results further revealed that having a BCP was vital to help co-operatives build resilience amid the COVID-19 pandemic.*

**Keywords:** *COVID-19 pandemic, co-operatives, Chi-square test, net surplus, business continuity plan*

## INTRODUCTION

The Philippines marked its first lockdown anniversary on March 15, 2021. The COVID-19 pandemic has severely affected the Philippine economy. With the implementation of community quarantine, the economy has been experiencing sluggish growth in many sectors (e.g., agriculture, industry and services), increase in unemployment, and disruption in the supply chains (World Bank, 2020). The outbreak hampered the country's economic activities and completely shut down business operations. Preliminary estimates show that the country's economy may have lost between PHP 276.3 billion (USD 5.55 billion) and PHP 2.5 trillion (USD 50.25 billion) (Business World, 2020).

The pandemic is also expected to cause adverse impacts and make the situation worse for the estimated over one million micro-enterprises around the country. Four months after the implementation of community quarantine, around 15 per cent of businesses reported to have closed permanently. Around 40 per cent of firms reported the temporary closure of their businesses. The adverse impacts on the workforce were also evident as 50 per cent of firms had reportedly reduced payments to employees, whereas another 48 per cent reported that they had laid-off employees (World Bank, 2020).

Like any business enterprises, co-operatives cannot escape from the brunt of the coronavirus outbreak. The disruptions caused by COVID-19 are also taking its toll on the activities of co-operatives. In the Philippines, the co-operative sector provides vital services (e.g., agriculture, credit, health, dairy, etc.) to the most vulnerable members of society and is recognised as an effective vehicle to uplift the welfare of households (Jimenez et al., 2011). But, in the midst of this COVID-19 crisis, which has affected everyone indiscriminately regardless of social or economic status, it is unavoidable that co-operatives get shaken up by the situation, too. Co-operatives are crucial providers of goods and services to their members and other enterprises as well. Any disruption caused by the pandemic can negatively affect the co-operatives' business operations and the welfare of their members and community.

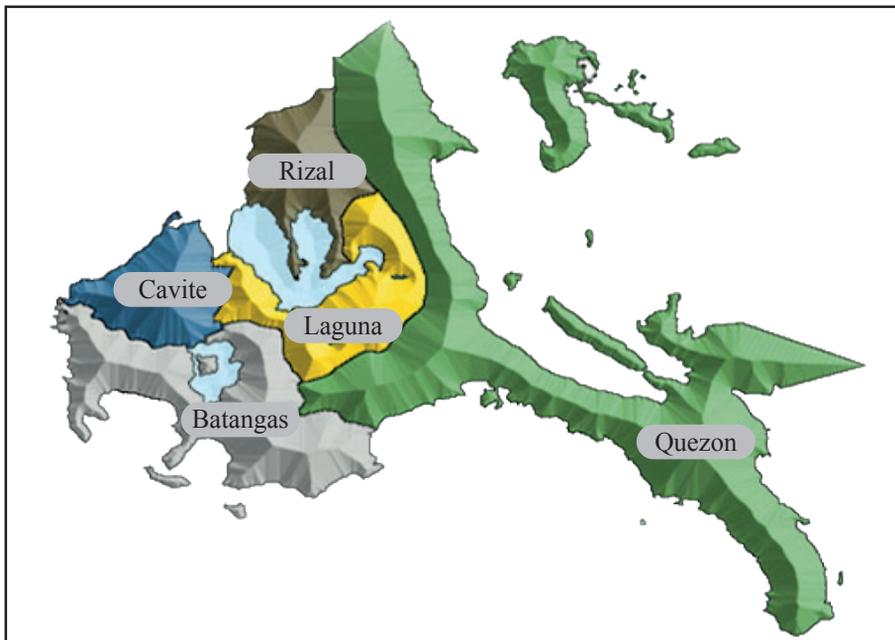
The availability of a complete information on the pandemic is crucial in order to understand its effects on co-operatives. Studies on the problems faced by co-operatives because of the pandemic will help decision-makers identify the best strategies and policies for the co-operative sector. Several studies had been carried out to evaluate the economic implications of COVID-19 on micro, small, and medium enterprise (MSMEs) (MicoSave Consulting, 2020; Shinozaki, 2021), but as of now, there has been no empirical studies assessing the impact of the pandemic on the Philippine's co-operative sector.

The purpose of this study is to assess the effects of the COVID-19 on the co-operative sector in this country, particularly on its business operations. This study would also identify key strategies and approaches on how to make the co-operative sector in the Philippines more resilient.

## RESEARCH METHODOLOGY

### Study Area

This study was conducted in the Calabarzon region of the Philippines (figure 1). Calabarzon was selected as the region was ranked in the top three in terms of the number of reporting co-operatives. This was also one of the locations where stricter community quarantine protocols were implemented.



**Figure 1:** Locations of Study

### Sampling Technique and Methods of Data Analysis

Probability sampling was used to select 77 co-operatives from the most recent list of co-operatives available at the Co-operative Development Authority (CDA). A pre-tested questionnaire was used as the study instrument to extract primary data on the profile of co-operatives selected for the study (e.g., size and type), and to elicit information on how the COVID-19 pandemic had affected their operations since the community quarantine began.

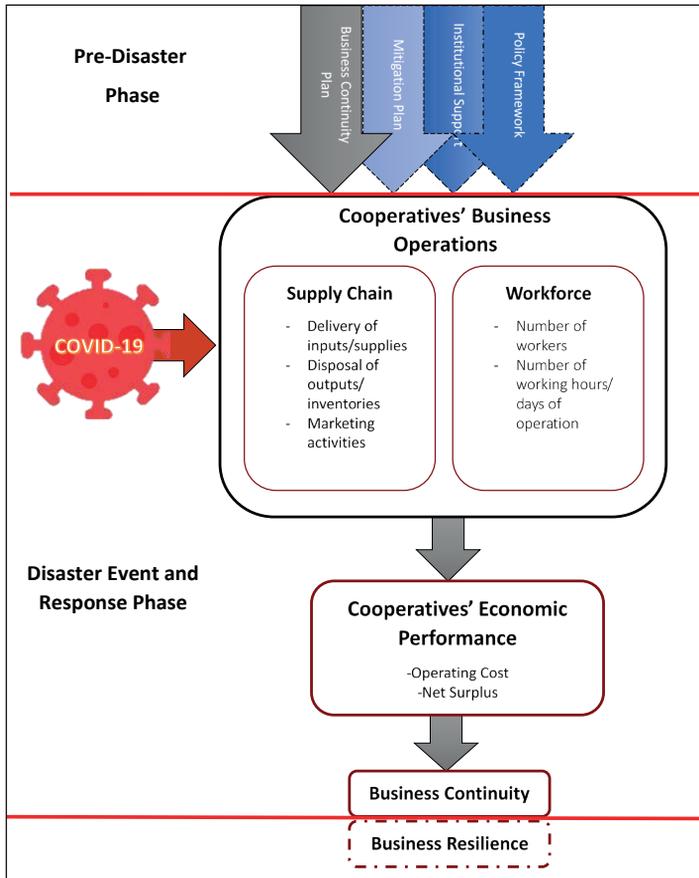
The data were analysed to provide descriptive statistics of the sample co-operatives and respondents, and appropriate inferential statistics. In particular, the chi-square test of independence was used to examine the association between net surplus and two selected categorical variables, COVID-19 and BCP.

## Conceptual Framework

This study on the economic implications of the COVID-19 pandemic, a type of biological disaster, on the Calabarzon region's co-operative sector employed a disaster management framework as shown in Figure 1. The ability of co-operatives to continuously operate their businesses amidst the pandemic depends on how their pre- and post-disaster encumbrances were addressed. The pre-disaster mitigation and preparation involve a good policy mix and physical infrastructure, institutional support, and mitigation planning. Policy and institutional support provide the business environment where co-operatives operate. A BCP offers ways by which each co-operative minimises its vulnerabilities or weaknesses in the event of a biological disaster. Having a BCP ensures that employees and assets are protected, and cooperatives can get back to normal operation in the event of a disaster. A mitigation plan refers to co-operative strategies to reduce risk or prevent risk before it happens (Ballesteros and Domingo, 2015).

Biological disasters like the COVID-19 pandemic can result in disruptions of business operations due to supply chain and workforce issues. Specifically, the community quarantine restrictions associated with the COVID-19 pandemic could cause delays in delivery of inputs to co-operatives, interruptions in the release/disposal of inventory/outputs to clients/customers, and other encumbrances impacting on other marketing activities. In the event of a disaster, workforce-related problems such as laying off workers, reduction in the number of working hours and/or days of operations could also be experienced by these co-operatives (Dilley et al., 2015; Israel and Briones, 2012; Ballesteros and Domingo, 2015). These disruptions could lead to an increase in operational cost and a reduction in the net surplus of co-operatives.

Pre-disaster planning is critical for co-operatives' business continuity and resilience during disaster events. Business continuity refers to a co-operative's ability to operate its critical business functions in the immediate aftermath of a disaster. In the disaster risk reduction management (DRRM) stream of policy intervention, business continuity is covered under the disaster response phase. Further, business resilience is defined as the ability to absorb, resist, and recover from a hazard's impacts in a timely and efficient manner (UN International Strategy for Disaster Reduction). Business resiliency can also be viewed as supply chain resilience as the occurrence of disaster also affects the entire supply chain and not just the business itself.



Adapted from Ballesteros and Domingo (2015) and Samantha (2018)

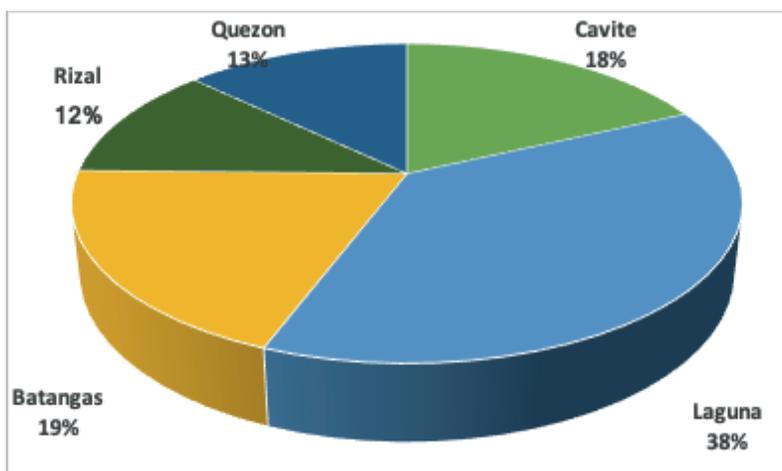
**Figure 2:** Conceptual Framework of Disaster Management

Although the policy framework, institutional support and business resilience are important areas of disaster management, these are not covered in this study. This study focuses only on analysing the economic implications of the pandemic on co-operatives and continuous business operations.

## ANALYSIS AND FINDINGS

### Profile of Respondents

As shown in figure 3, most of the co-operatives surveyed were located in the provinces of Laguna (38%), while the rest were in Batangas (19%), Cavite (18%), Quezon (13%), and Rizal (12%).



**Figure 3:** Distribution of Cooperatives by Location

Table 1 shows that a large majority (86%) of the respondents were either members of the board of directors (BOD) or general managers (GM). They were selected because of their in-depth knowledge of the organisations and were actively involved in the decision-making process of the co-operatives' business activities.

In terms of type, multi-purpose co-operatives accounted for the largest proportion (49%) followed by credit co-operatives (16%). Other types of co-operatives made up the rest of the sample with less than ten per cent of each type. In terms of employment size, the majority (62%) of the co-operatives employed at most ten workers, about one-third (34%) had 11-50 employees, while only a handful (4%) employed at least 300 workers.

**Table 1:** Profile of Survey Respondents and Co-operatives

Particulars	All (n=77)
Respondents	Per cent
BOD	85.71
Non-BOD	14.29
Type of Co-operative	
Multi-purpose	49.35
Credit	15.58
Service	7.79
Producer	7.79
Marketing	6.49
Transport	5.19
Consumer	3.90
Others	3.90

No. of Employees	
≤ 10	62.34
11-50	33.77
50-299	0.00
≥ 300	3.90

In terms of size, the largest proportion (43%) of the co-operatives surveyed belonged to the micro category. This was followed by small co-operatives (25%) with assets of less than PhP 15 million (USD 0.30 million), medium co-operatives (23%) with assets of PhP 15-100 million (USD 0.30-2.01). The rest (9%) was made up of large co-operatives with assets of more than PhP 100 million (USD 2.01 million).

### Implications on Supply Chain

The COVID-19 outbreak disrupted supply chains and caused temporary disruption between co-operatives and suppliers, clients and markets. The quarantine restrictions had a “domino effect” on the supply chain. Due to the non-availability of labour and public transport, bringing co-operative products to the market had been challenging, especially to those who did not have their own vehicles.

The interviews with respondents revealed that slightly more than half (56%) of the co-operatives had difficulty releasing/disposing their outputs (Figure 4). Meanwhile, around 39 per cent of the respondents reported problems/issues in marketing activities such as transporting and distributing the products and services to their clients. Further, 30 per cent of the co-operatives in the study reported delays in receiving inputs and other supplies.

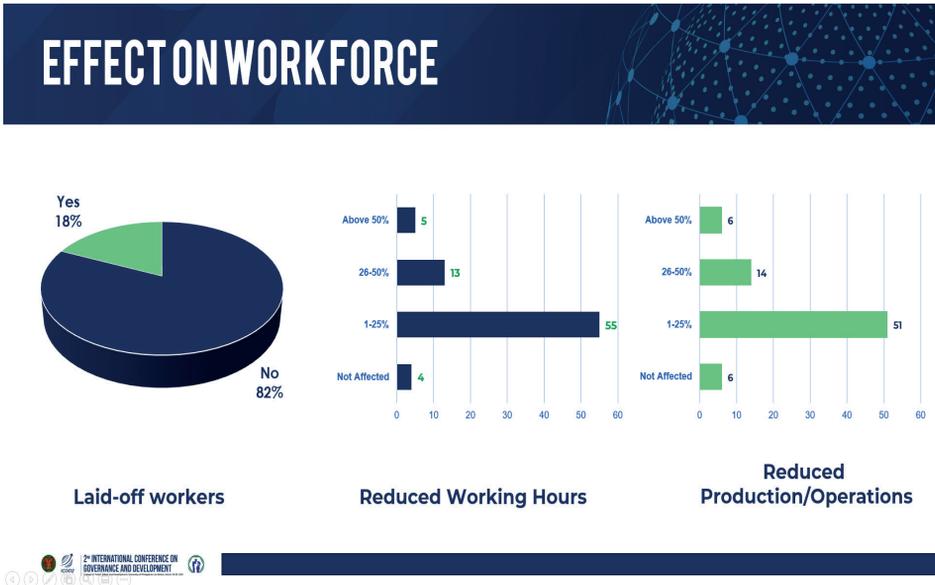
The interviews also revealed that during the pandemic, most co-operatives changed their transactions and arrangements with their customers and suppliers. The majority of co-operatives still had to go to the suppliers’ physical stores to purchase their inputs and other office supplies. Also, some of the co-operatives were located in areas where transportation vehicles were limited, resulting in delays in the delivery of many products of the co-operatives.



Figure 4: Supply Chain Disruptions Experienced by Co-operatives

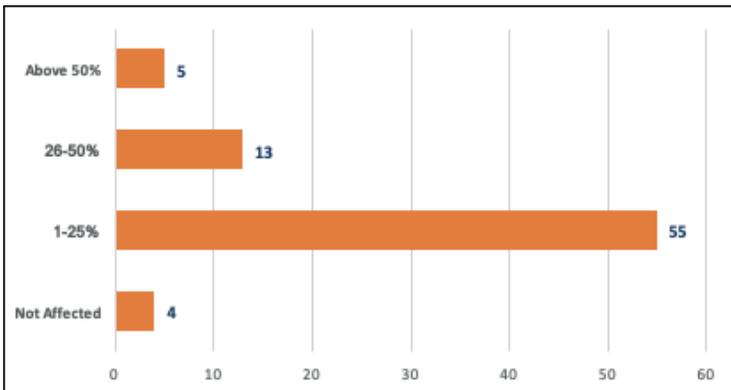
## Effect on Work Force

Considering the gravity of the COVID-19 pandemic, laying off employees and closing (temporary or permanent) many enterprises in the co-operatives were expected. The co-operatives took several measures to lessen the impact of the pandemic on the workers. These included changing work shifts and making arrangement to work from home for employees. Nevertheless, the inevitable did happen in the end when about 18 per cent of the co-operatives laid-off some of their workers.

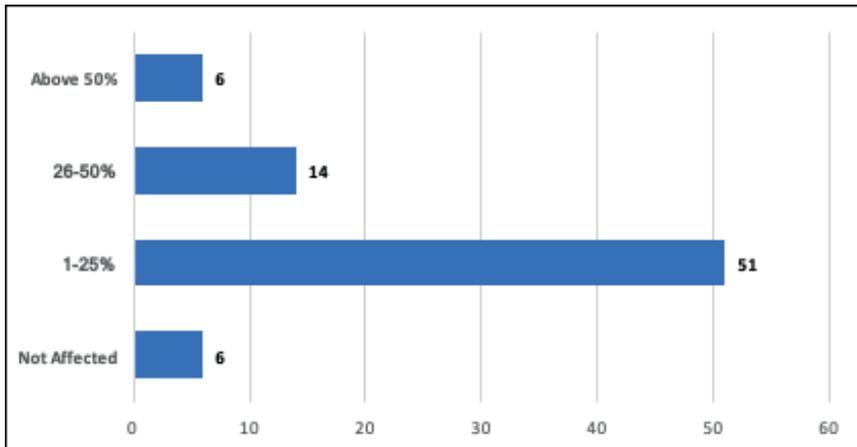


**Figure 5:** Percentage of Co-operatives Laying-off Employees

The reduction in workforce was partly attributed to substantial financial losses arising from depressed demand or limited market access. Cutting down on the number of workers was also accompanied by 1-25 per cent shorter working hours by the majority (56%) and reduction in the number of days by half (51%) of the co-operatives surveyed (figures 6 and 7, respectively).



**Figure 6:** Effects of COVID-19 on Working Hours

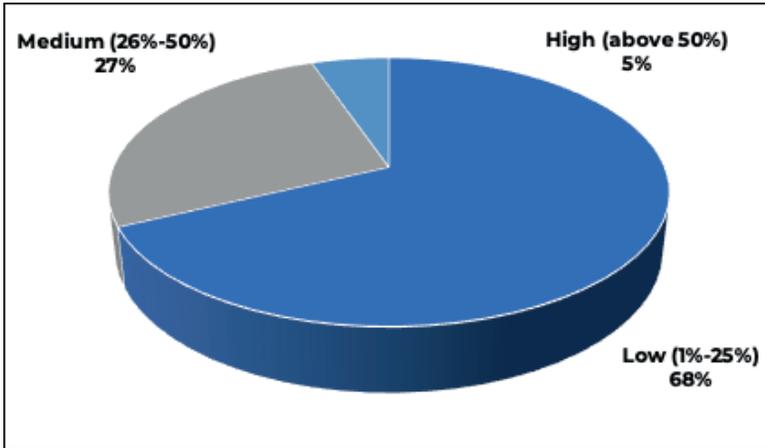


**Figure 7: Effects of COVID-19 on Days of Operations**

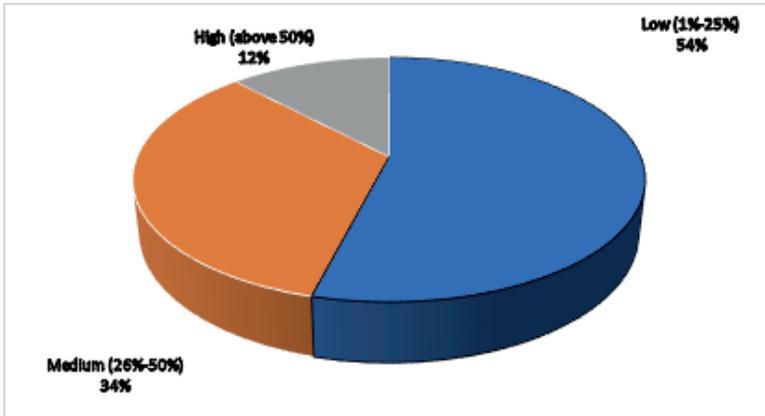
### Effect on Net Surplus

About two-thirds (68%) of the co-operatives experienced increased operational costs by 1-25 per cent (figure 8). A smaller proportion (32%) suffered 26-50 per cent increase in operational cost, while the remaining 5 per cent reported an increase of more than 50 per cent. The increase in operational cost was associated with the limited availability of transport vehicles required to move workers, goods and services to and from the co-operatives' physical offices/stores. Public transport vehicles were also limited during the lock down. Some of the co-operatives reported that they had to hire private vehicles to deliver their products to the buyers. Those who were assigned work from home were compensated accordingly for the use of electricity and internet.

Following the increase in operational cost, disrupted supply chain and reduction in the workforce, the net surplus of most co-operatives dropped. Among those who had experienced a decline in net surplus, slightly more than half (54%) reported a reduction of 1-25 per cent (figure 9). About one-third of the co-operatives (34%) suffered a reduction in net surplus of 26-50 per cent, while the remaining (12%) had their net surplus reduced by more than 50 per cent. As was mentioned earlier, the drop in net surplus could be attributed to substantial financial losses arising from depressed demand and limited access to market. Analysis results also revealed that collections of loan repayments were delayed due to loan moratorium, delayed release of outputs, and fewer visits to the co-operatives' physical stores/offices, resulting in reduced net surplus.



**Figure 8:** Effects of COVID-19 on Operational Cost



**Figure 9:** Effects of COVID-19 on Net Surplus

The Chi-square test of independence results (Table 2) show that COVID-19 was negatively associated with net surplus ( $p < 0.01$ ; Cramer's  $V = -0.3724$ ). That is, COVID-19 Pandemic had a negative impact on net surplus of co-operatives. Results of the Chi-square test of independence show that BCP and net surplus were positively associated ( $p < 0.01$ ; Cramer's  $V = 0.3121$ ). That is, co-operatives that were implementing BCP during the pandemic tended to have a higher net surplus. This implies that BCP could help mitigate the negative impacts of COVID-19 on co-operatives with respect to net surplus.

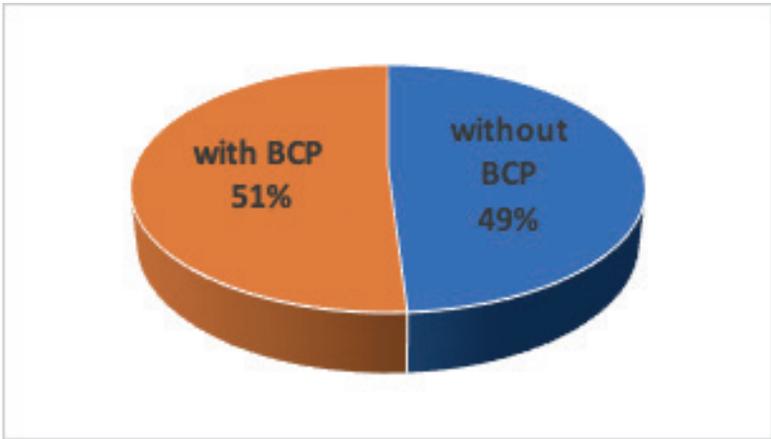
**Table 2:** Relationship between COVID-19, BCP and Net Surplus

Variable	Net Surplus		
	$\chi^2$	p-value	Cramer's V
COVID-19	10.678***	0.001	-0.3724
BCP	7.503***	0.006	0.3121

\*\*\*- significant at 1% probability level

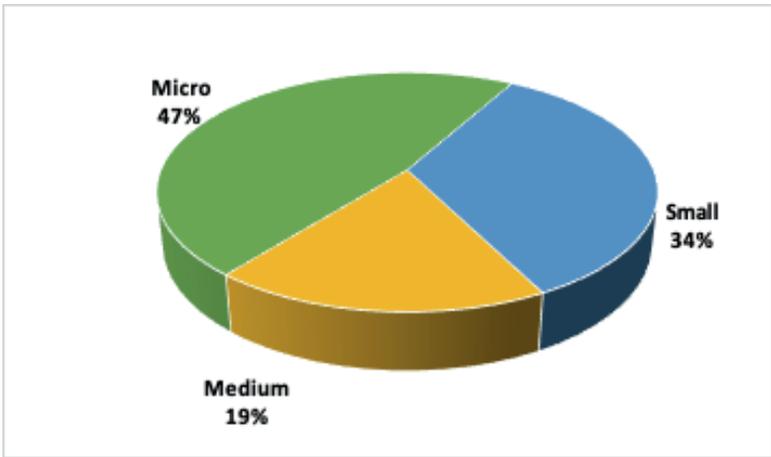
### Contingency Plans and BCP

When asked about any plan or preparedness to handle the pandemic, the number of co-operatives that claimed having a business continuity plan (BCP) in place was only slightly more (51%) than those without (49%). Those with BCP reported that it helped them function and continue business operation throughout the pandemic. In contrast, those without a BCP were not well prepared to handle such a situation. This is despite the directive from the government through RA 11364 that each registered co-operative must have its own BCP.



**Figure 10:** Distribution of Cooperatives With and Without BCP

Non-adoption of BCP can be linked to an organisation’s size. The majority (81%) of non-adopters were micro and small co-operatives that were usually constrained with resources, both in terms of finance and number of staff (figure 11). Some of the reasons identified for non-adoption of BCP were budget constraints, high cost of adoption/implementation, limited manpower, lack of relevance/appreciation of the importance of BCP, lack of technical know-how/information about BCP, and lack of commitment and support from the management.



**Figure 11:** Distribution of Co-operatives Without BCP by Size

## Perceived Recovery Period

The co-operatives interviewed were uncertain when the crisis would end one day, and their business operations could return to normal. This sentiment was consistent regardless of the size of co-operatives. Although uncertain, the largest proportion (49%) believed that it would take more than a year (table 3). This is followed by those who anticipated a shorter period of 6-12 months to get back to normal (39%). The rest were either very optimistic that it would take less than three months (5%) or totally clueless (6%). Although the respondents were uncertain, they were nevertheless optimistic that once the community quarantine was lifted, business activities would return to normal. It is also evident that the majority of the micro-sized co-operatives (54%) perceived a recovery period of longer than one year. On the other hand, the majority among the bigger co-operatives believed in a shorter recovery period of at most one year or unsure. This is plausible since bigger establishments, in particular, large and medium co-operatives have more assets that could be utilised or converted into cash to weather poor cashflow during the pandemic.

**Table 3:** Perceived Recovery Period of the Pandemic by Size of Co-operative

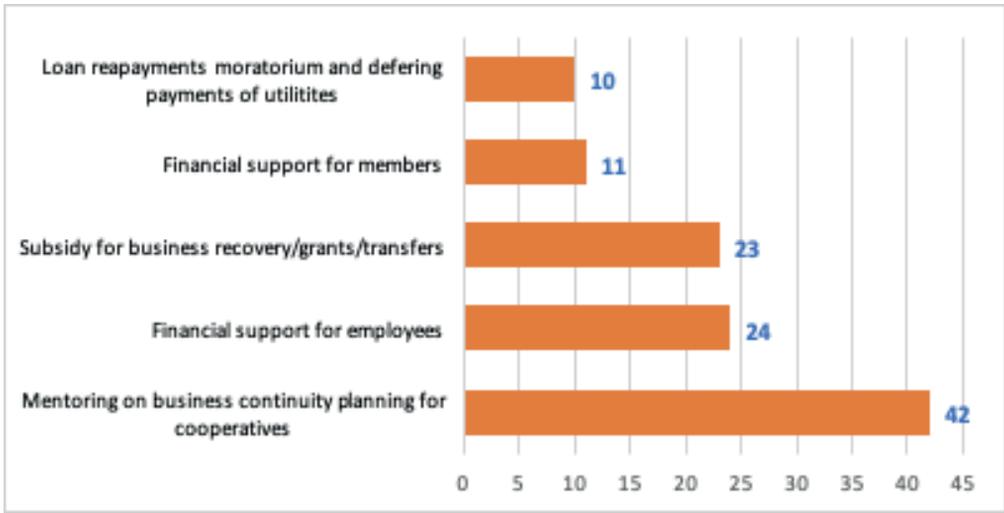
Sample	n	Don't Know	<3 months	6-12 Months	>1 year
Overall	77	6.5	5.2	39.0	49.3
Large	7	0.00	14.3	42.9	42.9
Medium	18	22.2	0.00	33.3	44.5
Small	19	0.00	10.5	42.1	47.4
Micro	33	3.0	3.0	39.4	54.6

## Support/Assistance to Co-operatives and Members

Support from the government, non-government organisations, federations and unions, and local government units help keep co-operatives afloat. The co-operatives reported that they had received some support from federation/unions (39%), Co-operative Development Authority (38%), local government units (30%), Department of Labour and Employment (20%), Department of Agriculture (18%), and Department of Trade and Industry (17%) to cope with the effects of the pandemic. The main types of support cited were unemployment benefits, financial assistance, and food packages. Some of the financial support received by the co-operative members were through government-to-person (G2P) programmes such as Conditional Cash Transfers or 4 Ps and the Social Amelioration Programme (SAP), DOLE COVID-19 Adjustment Measure Programme (DOLE-CAMP), and SSS Small Business Wage Subsidy (SBWS). Financial institutions, including micro-finance institutions, had also provided their clients with a moratorium for loan repayment as indicated in Bayanihan to Heal as One Act (RA 11469). The government also provided non-financial support in the form of food rations.

The responses on the most urgently needed support for co-operatives during the pandemic are summarised in figure 12. Out of the 77 co-operatives in the study, 42 said that they required mentoring on developing a business continuity plan. This suggest that co-operatives came to realise the importance of BCP, a disaster risk reduction tool, only after COVID-19 hit their business operations badly. Other much-needed supports were financial support for employees followed by subsidy for business recovery/grants/transfers (24 and 23 co-operatives, respectively).

Financial support for members were also specified by 11 co-operatives, and lastly loan repayment moratorium and deferred payment by 10 co-operatives.



**Figure 12:** Support/Assistance Needed to Recover from Effects of the COVID-19 Pandemic

### CONCLUSION AND RECOMMENDATIONS

The results indicate that most of the co-operatives surveyed had experienced wide-ranging difficulties due to COVID-19 pandemic. Specifically, the co-operatives business operations in Calabarzon had been reduced, supply chains heavily impacted, workforce badly affected, and financial conditions was difficult. The badly affected supply chain resulted in delays of incoming supplies and material inputs, late delivery of outputs or products, and disruptions in marketing activities. Most co-operatives reported a reduction in their net surplus due to increased marketing and operational costs. Moreover, some co-operatives had to lay-off or reduce employees’ working hours to mitigate the impact of declining business.

Given these challenges brought about by the COVID-19 pandemic, co-operatives need financial and technical assistance to explore relevant business practices and find solutions to cushion the effect of business interruptions. With cashflow being a real problem, the co-operatives need support in things such as loan repayment moratorium and deferred payment on utilities, subsidy for business recovery, and financial support for members. In terms of technical assistance, the co-operatives singled out mentoring on business continuity planning and monitoring as the most important support they needed. Disasters like COVID-19 pandemic are unpredictable and full prevention is neither possible nor attainable. However, the findings of this study highlight the importance of co-operatives adopting BCP in the face of business disruptions, both to reduce losses and build up resilience.

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