



Covid-19 pandemic and cooperatives in Indonesia: Impact and mitigation

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Abstract

This study aimed to estimate the impact of the Covid-19 pandemic crisis on cooperative in Indonesia and to explore crisis mitigation measures (CMMs) they undertake with the reference to saving and loan cooperatives (KSPs). This study was based on a literature study and a survey on 66 KSPs in various cities across the country during September-November 2020. Five forms of impact were found: decreased turnover, total saving dropped, the number of loan applications increased, the volume of their other (secondary) activities declined, and the number of members declined. Of these, the first three forms of impact were the most encountered. Disseminating especially to traditional/village markets to get new members and lowering the loan interest rate were two forms of CMMs which were applied by many respondents. To the best of authors' knowledge, this is the first research that examined the transmission channels through which the Covid-19 crisis affected cooperatives, particularly KSPs and how they overcome the crisis.

Keywords: cooperatives, KSP, Covid-19, CMMs, transmission channels

Introduction

Distinctive nature of a cooperative

In Indonesia most of the legal entity types are regulated in a modified version of the original version of the Dutch *Burgerlijk Wetboek* (or Civil Code): (a) foundation, (b) sole proprietorship (or trade company), (c) *firma* (or general partnership), (d) cv (in Dutch: Commanditaire Vennootschap), (e) private company limited by shares (in Indonesia: *Perseroan Terbatas*, PT), (f) State-owned PT (both in majority and complete ownership), (g) PT Tbk (in Dutch: Naamloze vennootschap, NV listed on the Indonesia Stock Exchange, and (h) cooperative.

By definition, a cooperative is an agency owned and controlled by members through which they conduct their business. Each member who can be a producer, a farmer, or a consumer (depending on the type of cooperative) fully retains its economic individuality and independence. The board of directors is elected from among members. Proportionality and service at-cost are two basic operating principles of a cooperative. In contrast to companies in general whose main goal is to seek the maximum profit for the owners (and shareholders), a cooperative is an organization that is formed for the welfare of its members. According to article 1 of Law no. 25/1992, cooperatives in Indonesia are business entities whose members are individuals or cooperative legal entities by basing their activities on the principles of cooperative as well as people's economic movements based on the principle of kinship.

The most popular type of cooperative in Indonesia is a saving and loan cooperative (KSP), which is also known as a credit cooperative or a cooperative legal entity-based microfinance institution. It is cooperative that has a single business, which is accommodating member savings and borrowing. Member who saves will get interest income and for the borrower will be charge interest expense. The amount of interest income for the savers and borrowers is determined by the annual members meeting (RAT). KSPs are one of the non-bank finance institutions in Indonesia that capable of financing business activities of micro and small enterprises (MSEs) because it is able to adjust the rhythm and character inherent in MSEs. According to the Decree of the Minister of Cooperatives and Small and Medium Enterprises No.96 of 2004 concerning Guidelines for Supervision of Savings and Loans and Savings and Loans Cooperative Units, KSPs are cooperative institutions that carry out business activities to collect and distribute funds from and to members, prospective members, other cooperatives, and /or their members who need to be managed professionally in accordance with the cooperative principles, the principles of prudence and health, so as to increase trust and provide maximum benefit to members and the surrounding community. Meanwhile, according to the Regulation of the Minister of State No.20 of 2008, deposits are funds entrusted by members, prospective members, other cooperatives and / or their members to cooperatives in the form of savings and term cooperative savings. Whereas a loan is the provision of money or an equivalent bill, based on a loan agreement between the cooperative and another party which requires the borrower to repay the debt after a certain period of time accompanied by the payment of a certain amount of compensation.

The number of KSP is far more than the number of other types of cooperatives, i.e. production cooperatives, consumption cooperatives, and multi-business cooperatives. As the name implies, a KSP provides money loans and a place for its members to save their money. Thus, it is a business organisation that engages in accumulating savings from its members to be lent back to its members who need capital assistance for their business.

Statement of the Problem

The Corona virus (Covid-19) outbreak has had a very bad impact on the Indonesian economy, as on the world economy as well, due to declined consumption and production as a direct consequence of government 'anti Covid impact' policies, i.e. social/physical distance, work and schools from home, and the necessity for companies in non-strategic sectors to stop their activities. Suryahadi, Asep, Ridho Al Izzati, & Daniel Suryadarma (2020) ^[42] estimated that the Covid-19 pandemic would weaken Indonesia's economic growth rate to around 1% to 4%. Whereas the Financial System Stability Committee (KSSK) predicted that the spread of Covid-19 would hit the Indonesian economy in 2020 to reach around 2.3% to - 0.4%. Whereas, according to Indonesia's Central Bureau of Statistics (BPS), Indonesia's GDP grew in the first quarter of 2020 only 2.97 per cent compared to the same quarter in 2019 or slowed down 2.41 per cent on a quarterly basis when compared to Quarter IV-2019.

Many field findings from such as Rahman (2020) ^[30], Santoso (2020) ^[34], Tambunan (2020) ^[52] show many companies, including small and medium enterprises (SMEs) have been seriously affected by the Covid-19 pandemic crisis. By April 2020, there were 212,394 laid off workers and 1,205,191 workers who were sent home but still paid (not full) from 74430 companies. From the informal sector, the number of workers affected and losing their jobs reached 282,000 people from 34453 companies enterprises, mostly from the micro and small enterprise category (Kompas, 2020a,b) ^[20, 21].

In time of this crisis, KSPs are expected to function as a last resort for their members. Members who are experiencing financial difficulties because they are laid off from their jobs or their own businesses declined as a direct consequence of the implementation of the anti-Covid-19 impact policy can get loans from their cooperative. But, based on the above findings on the impact of the crisis on many companies, it is expected that many cooperatives would be also seriously affected which could make the KSP not optimally carry out this role. Unfortunately, no studies have been conducted yet on the impact of the crisis on cooperatives or KSP in particular in Indonesia.

Research Questions

Based on the problem identified, this study has the following two questions.

1. How was the impact of the economic crisis due to the Covid-19 pandemic on KSPs and through what transmission channels?
2. What were the main business risks faced by KSPs in this type of crisis and what were their widely adopted CMMs?

Aim of the Study

The main aim of this study was to:

1. examine the impacts of the Covid-19 crisis on KSPs,
2. to explore the CMMs most widely adopted by the crisis-affected KSPs.

Development of Cooperatives in Indonesia: A Brief Overview

Cooperatives are business entities whose members are individuals or cooperative legal entities by basing their activities on the principles of cooperatives as well as the people's economic movement based on the principle of kinship (Law No. 25/1992). In Indonesia, the first cooperative was engaged in the credit sector, because it adjusted to the conditions of the people entangled by loan sharks (Siregar, 2019) ^[38]. However, over time, with various community problems, cooperatives also have other types of businesses. Siregar & Jamhari (2013) ^[39] stated that there are at least 25 forms of cooperatives, namely: industrial crafts, tourism, savings and loans, markets, business, employees, services, women, fisheries, livestock, agriculture, transportation, Islamic boarding schools, KUD, KOPTI, KPRI, ABRI, BMT, retirees, students, youth, street vendors, and fishermen. Of these 25 forms, they can be grouped into four types, namely consumption cooperatives, production cooperatives, saving and loan cooperatives (or KSP), and multi-business cooperatives (Susanti, 2015). Consumption cooperatives were established to provide the daily needs of members and the community. In general, when shopping, members will get incentives that non-members do not get. Production cooperatives function to assist the production process activities carried out by members. Meanwhile, savings and loan cooperatives are loan providers as well as institutions for saving money. On the other hand, multi-business cooperatives run more than one business, for example production and consumption or savings and loans and consumption. According to Zuhartati (2010) ^[55], in addition to providing an effort to fulfil consumption, facilitating production activities, providing facilities for saving and borrowing, people also need an institution that helps producers sell and distribute their products to consumers. On the basis of this, a marketing cooperative was established with the aim that the products produced by members can reach a wider market when compared to the members themselves marketing.

Since they were first initiated in 1895, cooperatives in Indonesia have gone through various challenges and made achievements. These challenges include the dynamics of economic development; changes in policies, laws and regulations; globalization and trade liberalization; and business competitions between cooperatives and non-cooperative-based firms. Meanwhile, the most important achievement that has been made was their contribution to self-sufficiency in rice in the mid.1980s.

Although there are quite many large-sized cooperatives, with asset values up to hundreds of millions of US dollars and the number of members reaching thousands of people (see Table 5), but in general cooperatives in Indonesia are small. Most recent data 2018 which is available from the Indonesian National Statistics Agency (BPS) shows that total assets of KSP on average was around Rp 6.4 billion (or approximately 451 thousand US dollar at current exchange rate). That is why the development of cooperatives in this country is under the responsibility of a ministry which also takes care of the development of SMEs (i.e the Ministry of Cooperative and Small and Medium Enterprise).

By using national data of registered cooperatives from the Ministry for the 2000-2019 period, Figure 1 shows the number of cooperatives in Indonesia continued to increase every year (except in 2016 the number decreased slightly).

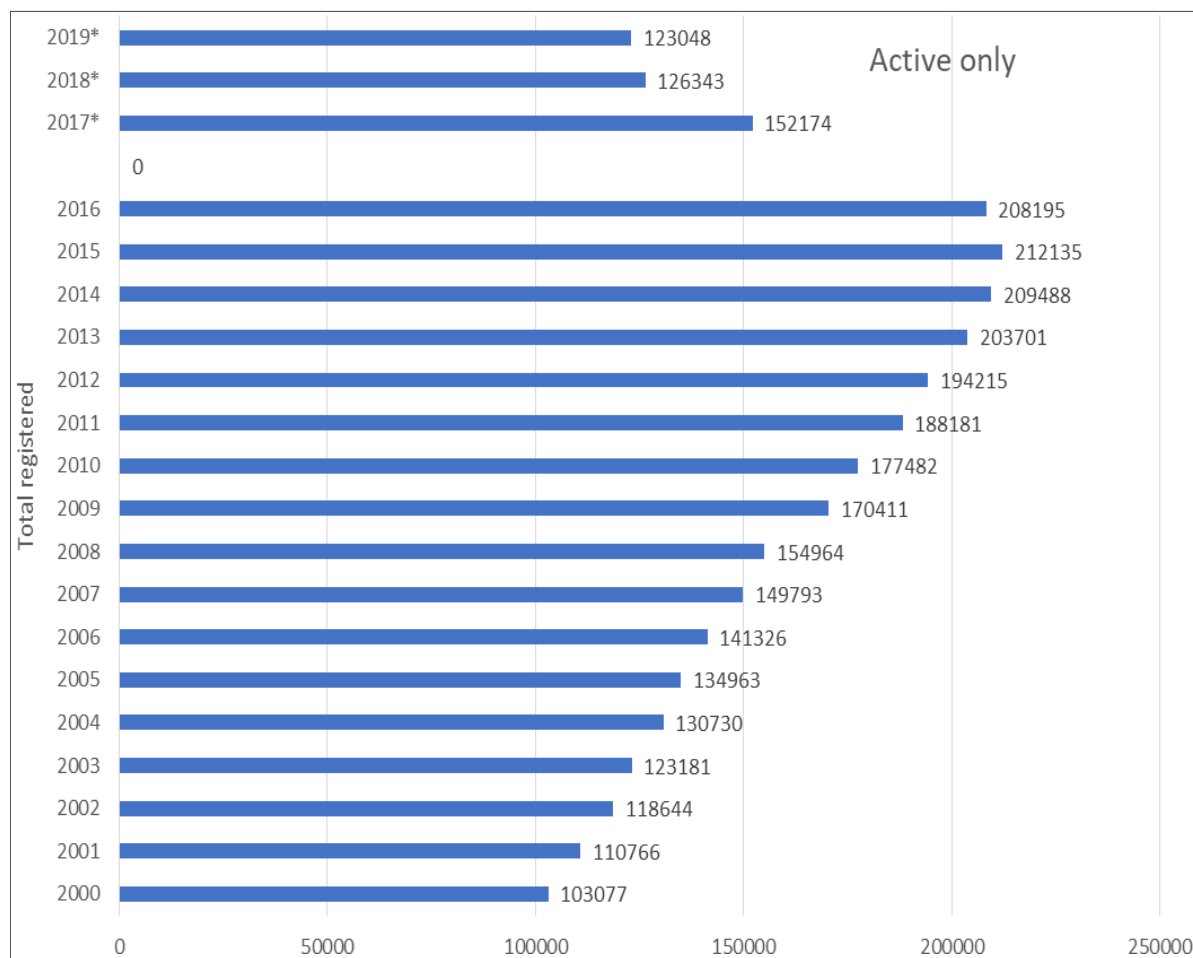


Fig 1: Development of Cooperatives in Indonesia, 2000-2019. Data from the Indonesian Ministry of Cooperativ and SME (www.depkop.go.id).

However, in fact, not all registered cooperatives are active. An active cooperative is defined by the Ministry as a cooperative that has held an annual member meeting (RAT) for at least three consecutive years. Although there is no data, by paying attention to the figure, it can easily be assumed that the number of active cooperatives each year is much less than the total number of registered cooperatives. As shown accordingly, for the 2017-2019 period the available data is only for the number of active cooperatives and indeed the number is much less than the average number of registered cooperatives per year. There were many factors that could be suspected as the cause of the many inactive cooperatives. According to such as Amini & Ramezani (2008) ^[3], Sushila *et al.* (2009, 2010) ^[44, 45], Mahazril 'Aini Ya, Hafizah, & Zuraini Yc (2012) ^[23], and Maulana (2015) ^[24], the main likely factors could be e.g. low management managerial skills, lack of strategic planning, low member participation, lack of solidarity among members, limited resources, especially finance, lack of market network, and heavy market competitions (especially for producer cooperatives).

Among these factors, according to Sari & Susanti (2015) there are two most important factors that influence the development of cooperatives, which are

(a) capital, and (b) member participation. Capital in this case is own capital originating from principal savings, mandatory savings and grants as well as loan capital originating from cooperative members and from outside the cooperative, which is legal and does not contradict the articles of association and/or provisions of laws and regulations.

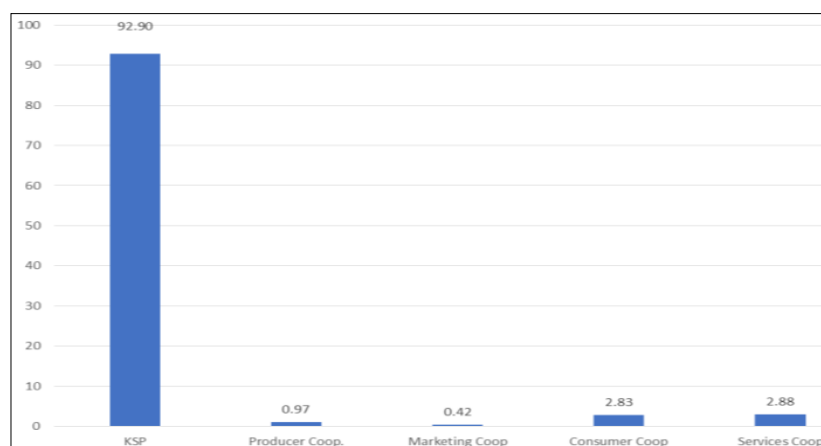
The greater the capital owned by the cooperative, the greater the chance for the cooperative to develop and vice versa. Meanwhile, what is meant by participation in this case is the participation of members in capital participation, decision making, supervision and utilization of services from the cooperative itself. So that the greater the level of member participation, the greater the opportunity for cooperatives to develop.

Next, Table 1 shows the number of active cooperatives, the number of members as well as the asset value and business volume that differ by province in Indonesia. Like business in general, this difference is determined by differences in many factors that directly or indirectly influence business dynamics in a location such as the level of economic development, the level of community welfare, poverty, market opportunities, institutions, infrastructure, population, regulation, and education. community average.

Table 1: Development of Active Cooperatives (all types) in Indonesia, 2019. Data from the Indonesian Ministry of Cooperative and SME (www.depkop.go.id).

Province	Number of Unit	Number of members	Assets (IDR million)	Business volume (IDR million)
Aceh	4,115	122.459	741,191.95	858,341.07
North Sumatera	4,199	929.962	7,958,317.86	5,658,111.70
Sumatera Barat	1,919	313.950	4,278,835.52	4,147,748.59
Riau	2,946	354.314	3,211,437.50	2,961,365.85
Jambi	2,540	102.262	766,346.23	896,054.82
South Sumatera	3,888	283.238	2,474,049.64	1,934,588.12
Bengkulu	1,883	79.182	700,504.68	468,544.91
Lampung	2,075	909.361	3,265,911.84	2,804,702.47
Kep. Bangka Belitung	651	68.069	500,300.59	504,961.62
Kepulauan Riau	884	63.523	662,658.92	593,464.97
DKI Jakarta	3,447	1.264.944	13,350,612.75	16,564,902.94
West Java	13,247	2.040.509	16,072,554.05	17,670,557.18
Central Java	13,164	5.742.018	25,967,911.02	24,287,935.21
D.I. Yogyakarta	1,751	857.104	4,061,898.99	4,491,040.78
East Java	21,757	3.620.213	26,275,314.66	28,116,735.18
Banten	3,881	875.844	4,427,885.30	4,338,462.17
Bali	4,244	1.108.238	14,294,454.95	13,444,457.16
West Nusa Tenggara	2,396	317.182	1,548,605.07	1,276,627.33
East Nusa Tenggara	2,697	703.337	3,022,143.15	2,590,375.49
West Kalimantan	2,935	1.203.533	5,968,757.18	8,529,436.10
Central Kalimantan	2,510	235.002	2,296,638.38	2,577,494.19
South Kalimantan	1,721	198.855	1,562,382.65	1,015,792.74
East Kalimantan	2,906	211.495	2,792,577.07	2,019,612.39
North Kalimantan	476	26.981	350,418.26	176,301.91
North Sulawesi	3,620	65.765	335,192.12	337,208.98
Central Sulawesi	1,429	132.214	805,554.66	1,022,220.56
South Sulawesi	4,966	374.806	2,923,259.25	3,326,599.39
Southeast Sulawesi	3,051	65.999	436,738.30	917,726.06
Gorontalo	884	46.193	243,249.39	198,286.68
West Sulawesi	837	18.788	109,905.85	273,968.89
Maluku	2,373	33.786	168,238.68	186,116.15
North Maluku	917	24.434	137,721.98	182,908.98
Papua	2,131	59.836	347,064.57	297,558.55
West Papua	608	10.342	54,504.03	48,321.01
Total	123,048	22.463.738	152,113,137.04	154,718,530.14

Further, based on data 2018 from BPS, Figure 2 shows that by type of cooperative, KSP is the majority with its share reached almost 93 percent. Yasri (1996) found that the most important factors that affected the growth of KSP were: (a) interest rates, (b) loan period, and (c) length of loan application process. Whereas Sudarma and Yasa (2013) identified that earning asset quality, management, profitability and liquidity have a significant effect on KSP's soundness level.

**Fig 2:** The Percentage of KSP by the Types of Cooperatives. Data from BPS (2019)

In Indonesia, according to Law No. 1 of 2013 concerning microfinance institutions (MFIs), KSP is a non-bank MFI. Like banks, insurance and other non-bank financing institutions or MFIs, KSPs are included as financial service institutions which are under the supervision of the Financial Services Authority (OJK). So it is clear that KSPs have to compete with banks or other MFIs in, for example, funding micro and small enterprises or finding customers.

Although no national or even regional or sectoral data to support, currently, as also experienced by many non-cooperative companies, it can be expected that many cooperatives including KSP in Indonesia may have also been affected by the ongoing economic crisis caused by the Covid-19 pandemic. The seriousness of the impact may vary by sector, depending on which sectors are most affected, and, on the other hand, initial condition of individual cooperatives.

Literature Review

Economic Crises and Transmission Channels of the Impact

An economic crisis can be defined as unexpected and uncontrollable large fluctuations beyond the acceptable limits of changes in prices or currency exchange rates or supplies of commodities that occur within a certain period of time. A country hit by an economic crisis usually shows a sluggish economic growth or even a negative growth in its gross domestic product (GDP). A long experience with economic crises in many countries and regions since the 1970s has shown that there can be many primary causes or initial triggers for an economic crisis. For example, an increase in energy prices such as what happened in the mid-1970s with the sudden and significant increase in international oil prices as a result of the conflict in the Middle East, known as the first oil crisis; or a huge depreciation of a currency against the US dollar (USD) due to a large capital flight, as happened in Thailand, and was immediately followed by Indonesia, the Philippines and South Korea which eventually triggered a major regional crisis, i.e. the Asian financial crisis in 1997-98.

Economic crises originating from different sources occur in different processes and have different transmission channels of impact, and the sectors directly affected are also different. Depending on the nature and magnitude of the production, consumption, and investment linkages of affected sectors with the rest of the domestic economy, economic crises from different sources ultimately form different total effects on a country's economy. Two economic crises widely discussed in the literature are the 1997/98 Asian financial crisis and the 2008/09 global financial crisis (e.g., Bello, 1999; Priyambada, Suryahadi, & Sumarto, 2005; Kane, 2009; UNICEF, 2009; World Bank, 2010; Hartono, 2011;

Pearson & Sweetman, 2011; Tambunan, 1998, 2010a,b, 2011) [6, 29, 17, 52, 14, 28, 12, 47, 48]. In Indonesia, the 1997/98 crisis began with the decline in the value of the rupiah (IDR) against the USD which reached more than 200%. This caused many domestic companies to reduce their activities and even. Many large companies that were heavily dependent on foreign loans and on imports of raw materials and industrial goods collapsed. The impact of this crisis was so serious that the country's economy crashed into a deep recession. Whereas the 2008/09 crisis for Indonesia, as for many exporting countries, was generally regarded as a world demand crisis or an export crisis as world demand for Indonesian exports declined. Other than that, Indonesia also experienced a significant drop in the number of foreign tourist arrivals (Griffith-Jones & Ocampo, 2009; Khor & Sebastian, 2009; Hartono; 2011) [13, 19, 14]. However, compared to the 1997/98 crisis, the 2008/09 crisis was less severe, and Indonesia managed to maintain positive growth rates in 2008 and 2009.

Companies in Times of Economic Crises

In the literature on the development of SMEs it is often mentioned that this business group is more flexible than large companies and they have the capacity to change their line of business when market demand for their products declines caused by a sharp macroeconomic downturn or as a result of government policies in favour of large companies' products or import. Whereas for large companies that manufacture more standardized products with large overhead costs, moving from one product type to another is costly and the assembly line reorganization takes time. Based on their observations and research on the development of SMEs in Indonesia, some like Sandee, Andadari, & Sulandjari (2000) [33], Berry, Rodriguez, & Sandee (2001) [7] and Tambunan (2019) [50] all agree that SMEs can perform better in volatile macroeconomic conditions than big companies. SMEs can increase their production or expand their market easily when the economy is growing (assuming that there are no serious growth restrictions such as limited capital and skilled workers) and easily cut production during an economic crisis. Berry, Rodriguez, & Sandee (2001) [7] emphasized that SMEs are vital in industries or sectors or economies facing rapid market demand changes or an economic recession as they function as shock absorbers in the business cycle. However, there is also a lot of evidence that shows that SMEs have suffered greatly from an economic crisis. The magnitude of the impact very much depends on many factors, including the type of crisis and its main transmission channels, and the types of goods that SMEs produce or the sector in which these enterprises operate. In the case of the 1997/98 crisis, from Thailand, for instance, some studies including Chantrasawang (1999) [11], Bakiewicz (2004) [5], and Régnier (2005) [31] showed that during the 1997/98 crisis quite many SMEs forced to stop production, especially those which were fully domestic market oriented.

In Indonesia, quite few SMEs stopped their activities due to the 1997/98 crisis (Tambunan, 2020) [10]. The main reasons for this vary, ranging from unavailability of bank credit, very high loan interest rates, to significant drop in domestic demand.

SMEs during the Covid-19 Crisis

OECD (2020a, b) in its latest report on SME policy responses to the crisis due to the Covid-19 pandemic explains that the crisis affected many companies including SMEs both from the supply-side and the demand-side. On the supply side, many of them experienced labor shortages, because many workers were infected with the virus or had to look after their children because no schools and the movement of people was restricted. The implementation of health protocols as recommended by the World Health Organization (WHO) to stem the spread of the virus by closing schools and universities, cessation of all business activities with the exception of sectors that are considered vital such as energy, finance, transportation, and health care, and prohibition of social activities (e.g. weddings, seminars/congresses, and entertainment events) as well as quarantine have led to an even greater decline in the use of installed production capacities which had a more severe impact. Mainly because regional or global supply chains were also severely disrupted. As a result, many domestic companies experienced a shortage of spare parts, semi-finished goods, or processed raw materials. On the demand side, many companies also experienced a lack of funds due to a drastic drop in demand and income. All these effects were exacerbated because workers were laid off and companies were unable to pay salaries. The impact of the virus has the potential to spread to financial markets which will make many companies that rely heavily on bank loans suffer more. According to this report, in general, SMEs tend to be more vulnerable to this crisis than their larger counterparts. mainly due to their higher level of vulnerability and lower resilience associated with their size.

Shafi, Liu, & Ren (2020) ^[36] did a survey on 184 Pakistani small businesses and the collected data were analysed with descriptive statistics. It revealed that most of the respondents have been seriously affected by the reduction in domestic market demand that led their sales and profit to drop significantly. Apart from slumping demand, many of them were found to be facing other two issues namely financial problem and supply chain disruption. Another important finding from their study is that almost 70 per cent of the surveyed firms said that they were nearing a critical threshold, and they wouldn't be able to sustain their business if the lockdown lasted more than two months.

In Indonesia, which is also severely hit by the Covid-19 pandemic crisis, stories including fact findings from field studies about the impact of the crisis on domestic companies, especially small businesses in many parts of the country has been growing since March 2020. Businesses in the tourism sector were the hardest hit, followed by companies in business lines which were heavily affected by the 'anti-Covid-19 impact' policies such as small shops, restaurants, cafes, and transportation. Table 2 summarizes them for the period March and April 2020.

Table 2: Reported Evidence on the Impact of Covid-19 on small businesses, March-October 2020

Source	Impact
Rahman (2020), Santoso (2020), Tambunan (2020)	Since mid-March 2020, 163,713 SMEs have been seriously affected. As many as 56% due to a decrease in sales, 22% difficulty in capital, 15% difficulty in the distribution of products and 4% difficulty finding raw materials
Hermansah (2020)	Based on a survey of SMEs, 96% claimed to have been negatively impacted. As many as 75% experienced a significant decrease in sales; 51% believe that it is very likely that their business will only last one month to the next three months
Anwar (2020)	Of the 14,238 SMEs in Serang City, 10,238 were affected. Only 4,000 businesses have survived this epidemic
Kompas (2020c)	The decrease in demand for SME products is expected to decrease by around 60% to 80%. This decrease was caused by a decrease in the number of buyers visiting shops
Sundari (2020)	Many firms in the Cimahi City have experienced a decline in sales of up to 80%. Even a large number of small businesses are forced to lay off their employees. Especially those that their businesses rely heavily on daily production activities are severely affected. Also export-oriented companies are also affected
Nurzaman (2020)	Ms. Tarli Sutarli is the manager of the Bueuk stamp coffee plant located in Golempang Hamlet, Ciliang Village, Parigi District, Pangandaran Regency. According to her, at normal times her turnover can reach 7 to 12 million IDR per month. Recently, hit by the corona pandemic crisis, she has almost closed her business because her turnover has dropped dramatically from day to day
Burhan (2020).	SME revenues in the culinary, fashion retail and beauty services sectors fell during the corona pandemic. The culinary sector experienced a decline in daily income of up to 37%, the fashion retail by 35%, and beauty services by 43% percent. Also food orders at restaurants decreased very significantly by up to 60%. The negative impact of the pandemic was felt most significantly by SMEs that still ran their businesses offline
Busnetti & Tambunan	From a survey of 137 small businesses revealed that some of them only

(2020)	Experienced a decrease in turnover, others only experienced an increase in production costs but their turnover was not interrupted, and there were also some who experienced both. In terms of rising costs, the categories with the highest number of respondents experiencing it were the cost increases of up to 10% and beyond 10% and up to 20%. In terms of declining sales, the category with the most number of respondents is the decline in sales above 40% and up to 50%. Only four respondents who admitted that their Turnover had not decreased.
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Crisis Mitigating Measures (CMMs)

When a company faces an unexpected fall in market demand, especially if the decline is expected to be prolonged, it usually takes adjustment steps to reduce the pressure on its profits. Also, if the price of a raw material has increased significantly due to interference in the supply or distribution or because of currency depreciation, companies that depend much on such raw material will take some adjustment measures to still be able to produce. CMM can take many forms, such as reducing production volumes, reducing working days or hours, laying off workers, replacing raw materials with cheaper ones, and changing marketing methods. Which one is ultimately implemented, it will depend much on the type of crisis, the type of business risk that arises, the actual impact of the crisis, and, perhaps more importantly, the owners' own expectation about the future of the crisis they face.

With respect to the 1997/98 Asian financial crisis, a research done by Dierman, Tambunan, Tambunan, & Wie (1998) who tried to look at CMMs of affected SMEs in the furniture and batik industries in some locations in Central Java showed that replaced imported raw materials with locally available ones was the most widely chosen form of CMM. While, in the case of the 2008/09 crisis the results of a field survey of SMEs in three furniture production centres in Java conducted by Tambunan during July-August 2009 revealed various forms of adopted CMM, ranging from looking for new markets (diversification of export markets) in countries that were less or not affected, exploration of the domestic market, termination of new recruitment, reduction of non-labor or labor costs, cancellation/delay of facility upgrades, reduction of working time, to cutting back in production (Tambunan, 2011).

With respect to the Covid-19 crisis, from the findings of a survey conducted by the International Labour Organisation, it was found that small businesses had responded to the economic crisis caused by the Covid-19 pandemic in various ways (ILO, 2020). About half of the small businesses surveyed have cut their production in response to reduced demand and some constraints on the production side. Many others were found to have negotiated wages with their workers and some have revised debt repayment term with their banks and payments for raw materials purchased with their suppliers. Few companies have diversified their sales channels to reduce the impact of the crisis on their business.

From their research's findings in Pakistan, Shafi, Liu, & Ren (2020) also provided evidence on adopted CMMs by affected companies. The surveyed enterprises have implemented a variety of strategies to curb the crisis. Particularly, 31% of them have shut down their business completely, while 19% only partially, whereas 18% planned to borrow money from the bank. Moreover, it was found that 12% were still operating, and only 4% of the sampled enterprises expressed that they were going to change the business line. Additionally, 2% were struggling to work remotely, as it is the best way to minimize the exposure to get infected.

However, many companies especially those in the rural or backward regions may have difficulties to do that because they do not have the required resources such as computer or access to the internet to adopt such a strategy.

In overall, experiences with the three crises, i.e. 1997/98, 2008/09 and 2020, show that different types of crises with different transmission channels pose different types of business risks, such as production risk, credit risk, or market risk. Therefore, different types of business risks require different appropriate forms of CMMs. Table 3 describes the type of business risks faced by MSMEs and forms of CMMs recommended by type of the crises.

Table 3: Different Types of Business Risks and Different Appropriate Forms of CMMs by Type of Crisis, 1997/98, 2008/09, And 2020

Type of Crisis	Transmission channels	Type of Business Risk	Forms of CM measures recommended.
1998/98 crisis (currency crisis)	-import -credit export -domestic supply chain	Production risk: -high production costs due to high prices of imported raw materials 2) Credit risk: high loan interest rate 3) Market risk: -less or no demand from LEs (stop subcontracting linkages)	-substitution of raw material -efficiency in using raw materials -Reducing number of workers/labor costs. -Reducing other non-labor and non-raw material costs -looking for alternative sources of funding -finding alternative sources for subcontracting arrangements at home and abroad
2008/09 crisis	-foreign tourists	Market risk: less export demand	-Exploration of domestic market
(world demand crisis)	-export	- less domestic demand related to less foreign	-Finding new markets (export market diversification) -Reducing production cost e.g. lay off some

		tourists visiting Indonesia	workers or reducing working time Cutting back on production
2020 Covid-19 crisis (production and market demand crisis)	import-export-domestic demand	Market risk: less domestic demand 2) Production risk: - stop production (due to 'anti-Covid 19 impact' policy)	-Change business lines Change the way of marketing Reducing production cost e.g. lay off some workers or reducing working time -Cutting back on production

From many studies, obviously, the adopted CMMs are mainly to cope with the declined market demand. So, the most adopted CMMs are presented in Figure 4.

Table 4: Evidence on CMMs adopted by Affected MSMEs during the Covid-19 Crisis

Type of Crisis	Adopted CMM	Source
2020 Covid-19 crisis (production and market demand crisis)	-change business line to those which are not too affected by the crisis or have a chance of survival or even growth, turn to the business of making masks and other personal protective equipment that were most sought during the Covid pandemic, change the way of marketing from offline to online or e-commerce by using existing trading platforms, - switch from waiting for buyers to come to the home delivery via telephone call, sms or wa.	Afifiyah (2020), Ciremaitoday (2020), KB (2020), Kompas (2020c), Setyowati (2020), Tambunan (2020), Busnetti & Tambunan (2020).

Theoretical Framework

Although all types of cooperatives can be affected by the Covid-19 pandemic crisis as it has also affected severely many non-cooperative enterprises from all sizes in many sectors in many countries in the world, there is a difference between a KSP and other types of cooperatives regarding the impact. For a production cooperative, the impact of the crisis is direct through a decline in market demand. Meanwhile the crisis affects a KSP indirectly through its effect on incomes of some (if not all) of its members or society in general. For example, because of the crisis, many members of a KSP have lost their jobs or closed their own businesses and so they have applied for loans or/and reduced their savings.

So, as illustrated in Figure 3, theoretically, the impact of the Covid-19 pandemic crisis on business owned by KSPs' members or companies where they worked before occurred through two main transmission channels. The first channel was the decline in domestic production activities caused by a combination of two factors: (i) the so-called "anti-Covid 19 impact" policy which consisted of three main elements, i.e. social/physical distancing, learn and work from home, and temporary suspension of domestic business activities in non-strategic sectors that as a direct result led domestic market demand to decline ('demand-side effects'), and (ii) Indonesian export and import declined caused by, respectively, dropped world demands and reduced world production activities ('supply-side effects'), especially from China (ADB, 2020). These two factors have caused many domestic companies, including cooperation (especially non-KSPs) to decrease (↓) their production or even stop their businesses. These demand-side and supply-side effects did not happen only in companies manufacturing finished products but also in companies that supply of processed raw materials, components, spare parts, auxiliary goods, semi-finished goods and other inputs.

The second channel was the increase in the number of poor people as many employees have been laid off, or their wages were cut, or their own businesses went bankrupt, which in turn would have an additional negative impact on business activities in the country ('multiplier effects').

As a further impact on the KSPs, many members would experience financial difficulties which in turn made the amount of savings deposited to the KSP decreased and/or the demand for loans increased. In addition, KSPs that have additional activities such as minimarkets or small-sized food manufacturing, or distributors of daily necessities would also experience a decrease in turnover.

In the last stage of the transmission channel theory, there were two groups of the affected KSPs, namely KSPs that did CMMs and those who did not. It would depend on two main things, namely how severe the impact was and the perception or expectation of the KSP management regarding the crisis.

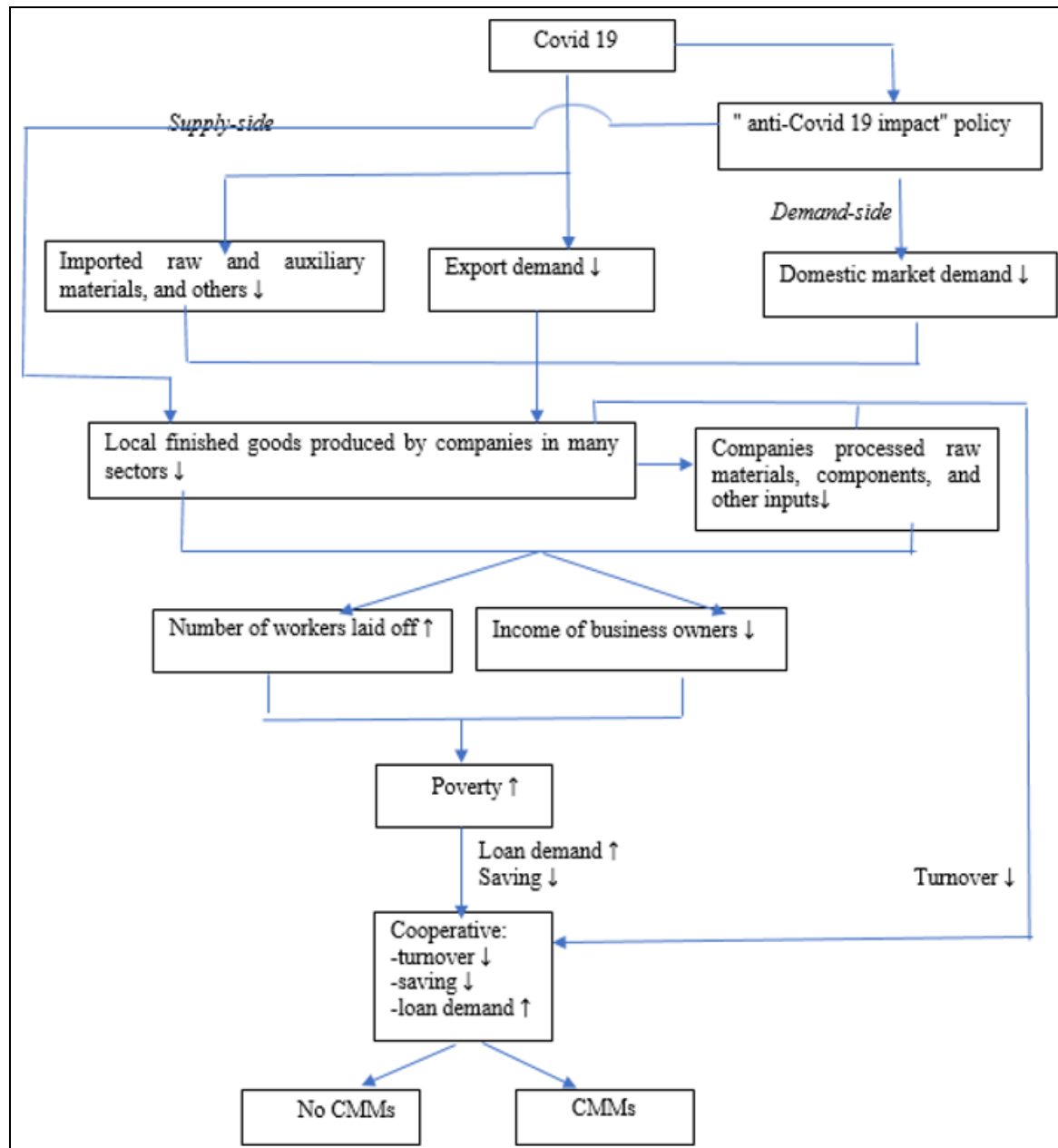


Fig 3: The Identified Four Main Transmission Channels of the Impact of Covid-19 Pandemic on cooperatives/KSPs.

Research Method

The aim of this research is not to examine statistically significance of the correlations between variables, but to find answers to the research questions mentioned earlier. It adopted an exploratory methodology with a survey on 66 registered KSPs during September-November 2020. They were randomly selected in various cities in Indonesia, including DKI Jakarta (the majority), Bogor, Depok, Bekasi and many others. Some of them were contacted and interviewed by phone, while others were visited to their offices. The main reason that not all respondents were visited in their offices was because of government regulations limiting population mobilization by requiring people to work and study from home and all shops and businesses in non-strategic sectors must close. After all, at that time, everyone was very worried about the spread of the COVID-19 virus through physical encounters. All KSPs in the sample are well-established and have websites. Their members consist of various professions, e.g. housewives, traders, small and medium entrepreneurs, civil servants and employees of private companies. There are several cooperatives whose members are only the military and their families. Several cooperatives also have secondary activities such as fuel/gas stations, minimarkets, distribution and procurement of raw materials. Some cooperatives have very large number of members, even in the thousands. Usually, KSPs with many members have been established for more than 10 years, or have many branches in other villages or sub-districts, or in regions where the population is generally poor (e.g. in agricultural areas), and for them it is easier to borrow money from KSP than bank. The profiles of the 67 sampled KSPs are presented in Table 5.

Table 5: Profiles of the Sampled 67 KSPs

No	Name	Location	First year	Total member	Members' professional composition (2020)*							Second. acts.
					2020	A	B	C	D	E	F	
1	KPMI	Jakarta	2016	20								X
2	KSP KSD NK	Kalidawe	2005	12								X
3	KS	Lebak	1990	30								X
4	KSP TDS	Bekasi	2008	700								X
5	KDU	Kuningan	2010	37	6	4	8	10	2	5	2	X
6	KD	Majalengka	2010	40	12			15	13			X
7	KLKMS BMTT	Majalengka	2013	25	3	2	10	5		5		X
8	KSP M	Kuningan	1998	57	3	2	15	5		17	15	X
9	KACA	Jakarta	2017	85	10	40	20	10		5		
10	KMB	Warureja	2014	30	8	1		13	8			
11	KSP PCU	Jakarta	1985	2,635	2480	50	30	30		20	25	
12	KSP JTA	Jakarta	1973	2,000								X
13	KSP B	Jakarta	2005	55								X
14	KSP I	Jakarta	2012	1,078								X
15	KSP S	Jakarta	1992	612								X
16	BSG	Jakarta	2008	20			20				x	
17	KM	Jakarta	2010	9			9					
18	KT VI	Jakarta	1995	Na							x	
19	KM	Jakarta	2012	523				523				X
20	KSP SK	Jakarta	2006	76	x	x					x	
21	KSP LG	Jakarta	2008	86	x		x					X
22	KSP SAM	Jakarta	2009	127	x		x					
23	KPTB	Jakarta	2016	109	x		x					X
24	KTM	Jogjakarta	1999	85	21	5	8	6	40	5		X
25	KG	Jakarta	1990	38	10	1	17		10			
26	KS	Jakarta	1976	152			152					
27	KSP MS	Bogor	2010	37	6	6	8	10	2	5		
28	PMKS	Yogyakarta	2020	25	2	23						
29	KSP M	Jakarta	1962	50								X
30	KKB	Jakarta	2012	1,700								X
31	KKDPP	Jakarta	2002	40								
32	KBBS	Bogor	1991	3,600								
33	KKGJ	Jakarta	1952	80								X
34	KM	Tangerang	2014	19,000								X
35	KKDPP	Jakarta	1996	70								
36	KHS	Cirebon	1992	480								X
37	KSA	Jakarta	2016	85			x	x				
38	KG	Jakarta	2018	82	x		x	x				
39	KDKIJ	Jakarta	2009	110								
40	PKY	Jakarta	2007	62	x		x	x				X
41	KSP SMB	Bekasi	2008	18								
42	KSP MMS	Bekasi	2013	15	4			11				
43	KA	Bekasi	2012	380			x					
44	KSP NJA	Jakarta	2009	1,500		450	450	300		300		
45	KJB	Jakarta	1963	2,540	100	20	200	2000		200	20	
46	KSRB	Jakarta	1992	852	86	46	200	2-		518		X
47	KSGG	Jakarta	2007	165		x	x					X
48	KSPSA	Jakarta	2005	8				x				
49	KSP GPD	Kuta Selatan	2002	641								X
50	KUD DR	Tabanan	2015	196	12	4	20	45	73	24	18	X
51	ADL	Kuta Selatan	2007	454	42	85	89	74	56	83	25	
52	KPPK	Bekasi	1987	36,732	17.5%	20%	10%	20%	2.5%	30%		
53	KLM	Bekasi.	2011	732	2%	10%	25%	25%	3%	35%		X
54	KSMB	Bekasi.	2006	1,183	15%	10%	20%	35%		20%		
55	KPPKJ	Bekasi.	2000	400	10%	2.5%	2.5%	15%		70%		
56	KMB	Bekasi.	2007	773	20%	2.5%	5%	10%	2.5%	60%		
57	KSP DT	Bekasi	2013	2,709	1599			57	289	764		

58	KSP US	Depok	2001	427		43	149	65	21	149		
59	KUM	Jakarta	2001	80,000	x		x			x		
60	KOOMR	Jakarta	2017	50								X
61	KBMTN	Jakarta	2017	50			x					
62	KM	Jakarta	2009	83			x					X
63	KSG	Jakarta	2011	32						x		X
64	KMS	Jakarta	2013	200								X
65	KSB	Jakarta	2011	1,300	300	200	50	100	530	100	20	
66	KSD	Jakarta	2017	2,357		1000	1000	57			300	

* some respondents did not provide data on the professional composition of their members, some others only gave approximate compositions in percentage or in 'x' sign; A = housewife; B=government employees; C=private employees; D= SME owners, E=farmer; F= trader; G=others (e.g. students, retired, online motorcycle taxi driver, professional (e.g. army). Secondary activities, e.g. minimarket; production of goods; selling online raw materials, goods and basic needs; organize SME exhibition; organize periodic trainings; selling essential oil production; gas station; social activities.

With respect to the first research question (the impact), the respondents were asked to answer in percentage ("how many percentage") if their turnovers or savings amount from members or total loan applications were impacted. But, for their total number of members or their second or side businesses (if any), they were asked to simply answer "decrease" or "increase", or "no change". Because the main aim of the study was to explore the impact of the crisis on the main activities of the cooperative, in this case the savings and loan cooperative (KSP), namely the amount of savings from members and the number of loan applications by members, not on secondary activities of the KSP. Although there is no doubt that the impact of the crisis on the performance of the cooperative's secondary activities will certainly have an impact on the total turnover of KSP. With respect to the second research question (CMM), they were asked by using their own words to tell exactly the forms of mitigation they have adopted. They were allowed to say more than one form of CMM if any. Their answers were then grouped into several forms of CMM.

Results and Discussion

The finding of the survey is given in Appendix. Three forms of impacts were of concern in this study, namely change in turnover, change in total savings deposits from members and change in the number of credit applications by members. The results from the interviews show that the form of the impact experienced by almost all respondents was a reduced turnover with varying percentages. Even one respondent admitted that his turnover had decreased by 100 per cent. Apart from a decrease in turnover, more than 50 per cent of the respondents also admitted that the amount of savings deposited by members had decreased. It is very likely that many members were affected by the crisis (their business was affected, or they became unemployed because many companies had to stop or reduce activities), and so they have no money left for saving. On the other hand, most of the respondents also experienced a significant increase in loan applications by their members. The applications came mainly from members who have own businesses, or who were farmers or traders who needed additional capital to keep their businesses running during the crisis.

Apart from these three forms of impacts, two other forms are changes in turnover from secondary activities and number of members. As can be seen, as many as 47 respondents also experienced a decrease in turnover from their other activities. Regarding the number of members, some have experienced an increase, while some others have experienced a decrease in the number of members. It is not sure whether changes in the number of members were because of the crisis. But, logically, as the KSP functions as a last resort for those who needed money, it can thus be assumed that those who experience financial difficulties due to the crisis will tend to join a KSP.

Although not yet statistically proven, this exploratory research gives an impression as if the magnitude of the decline in turnover due to an economic crisis is strongly influenced by the number of members and their economic conditions (e.g. small entrepreneurs, employees in the formal sector, housewives, teachers, or civil servants), and the number and types of secondary activities.

During the pandemic crisis, the turnover of KSP with members who are mostly civil servants or teachers tended to be less affected or the impact was smaller than KSP's where most of the members are small entrepreneurs or employees in private companies which at that time included those that had to close. With respect to CMMs, as explained before, CMMs can take many forms, such as reducing production volumes, reducing working days or hours, laying off workers, replacing raw materials with cheaper ones, and changing marketing methods. Which one is ultimately implemented depends largely on the type of the crisis, the type of business risk that arises, the actual impact of the crisis, and, perhaps more importantly, the owners' own expectations about the future of the crisis. From the survey it reveals that 26 respondents did not take a special action to deal with the crisis. In other words, the ways they managed their day-to-day businesses did not change although the crisis had also affected their cooperatives. While those who took the adjustment steps, their CMMs are shown in the Table 6. As can be seen, in general, the most common form of CMM is around loans with the aim that, on the one hand, members who really need loans because of the crisis can get it easier and those whose debts are still not paid off are lighter, and, on the other hand, to prevent non-performing loans.

Table 6: Various Forms of CMMs undertaken by the Respondents

Forms of CMMs	Number of Respondents
Changed debt procedures: for customers/members who are in arrears, instalment must be paid in advance at disbursement,	4
Cooperating with capital loan institutions,	2
Created a mini market to maximize income,	1
Implementing sales discounts and delivery orders,	2
Increased liquidity funds,	3
Loans suspended,	2
Loan relaxation and loan socialization,	2
Lowering loan interest rates,	1
More selective and careful in giving loans,	6
More attention paid to increasing savings.	1
Providing easy installment,	4
Reducing interest and installment,	3
Selling items from convenience stores online,	1
Serving orders for goods needed by the general public,	1
Shorten the credit period and reduce the credit nominal,	2
Socialization to the markets in order to have many new members,	7
Debt restructuring	4
Reducing debt payments by paying only interest and service fees	2
Providing loans online	2

Some of them adopted more than one form of CMM. For example, one KSP has restructured outstanding debts (relief in installments) of its members, and also conducted loan relaxation and loan socialization to get even more loan applications. Another KSP in the sample took measures to become more selective in providing credit and shorten the length of the credit period and reduced the credit nominal. Although they did not provide information about their financial condition, based on confessions from some respondents during the interview, it can be assumed that the choice of measure and the number of forms of CMM they take is highly dependent on the initial financial condition of their cooperatives and the actual impact of the crisis. In turn the financial condition is largely determined by especially their number of members; member's financial condition; side or secondary activities of cooperatives (if any) such as shops, small or medium scale food industries, motorcycle repair shops, and others, and the impact of the crisis on their secondary activities. At least theoretically, the more the number of members and/or the better the financial condition of the members (for example, members who are employees in sectors that are not vulnerable to or least affected by the pandemic crisis such as in government (departments), state-own companies, banks, education and social institutions, agriculture, mining, communication, water supply, gas and electricity). and the larger the number and variety of secondary businesses, the smaller the impact of the crisis on KSP. In turn, the lighter the adjustments or measures that must be taken to mitigate the crisis,

Conclusion: The Theoretical and Practical Contributions

As almost other countries in the world, Indonesia has been hit by the Corona pandemic. Before that, Indonesia was experienced two major economic crises, the 1997/1998 Asian financial crisis and the 2008/2009 global financial crisis. This study aimed to examine the impacts of the 2020 Covid-19 pandemic crisis on cooperatives with the focus on KSPs and to explore the main CM measures adopted by the affected KSPs.

This study has two important contributions, i.e. theoretical and practical contribution. With respect to the theoretical contribution, different types of crises have different transmission channels through which the crisis affected businesses and pose different business risks, and therefore require different CMMs. So, an economic crisis may not affect all companies including cooperatives in all sectors; it depends on the type of the crisis and hence its transmission channels. The Covid 19 pandemic crisis can be considered as a combination of market demand and market supply (production) crises, caused by three factors, i.e. 'anti-Covid 19 impact policy', reduced global production, and declined market demand. From the market demand side, only companies including cooperative that make finished products (good and service) and are completely dependent on offline marketing will be hit directly as people are staying at home. Whereas from the market supply side, generally, only large companies with large numbers of workers such as textile and apparel companies, and which became a gathering place for many people such as cafes and restaurants, entertainment venues, cinemas, hotels and malls that had to close during the pandemic period. Meanwhile, micro-businesses that only use less than 5 workers such as small car repair shops, small car washes, small shops, or business units without workers such as craftsmen, small traders, and food stalls remain open.

In this case of KSPs, the impact of the crisis was not direct, but through its impact on their members' income. The exception is only for KSPs that have secondary activities that contribute quite a lot to their income, such as minimarkets or the sale or distribution of goods and services. Then, in this case, the crisis affected them directly. So, for KSPs that have no secondary activities or the share of these secondary sources of income in their total income is relatively small, the effect of the crisis will significantly depend on the incomes of their members. If most of the members are small-scale food producers who are severely affected by the crisis, the indirect impact on the cooperative can be serious. The findings in Table 6 and evidence from the literature review (see Table 2) may suggest that there is no significant difference between KSP and non-cooperative companies in the impact of

the COVID-19 pandemic. The findings in Table 7 also suggest that KSP and non- KSP or SMEs (based on evidence in Table 4) do not respond to the crisis differently. With respect to the practical contribution, if the government wants to assist crisis affected KSPs, this study has two policy implications. First, to make its stimulus packages program effective, KSPs that will be most affected should be identified first. And for that, it needs to know in advance the type of crisis and its main transmission channel and its related type of business risks. Second, the form of stimulus must be in line with the CMMs adopted by the targeted KSPs. In other words, the stimulus program must be complementary to the adopted CMMs. So, different CMMs in response to different business risks need different policy approached and different stimulus packages.

Table 7: Forms of the Impact Experienced by the Respondents

Name	Impact						
	Turnover ↓ (%)	Saving ↓ (%)	Loan application ↑ (%)	Turnover of second acts.	Change in total number of members		
					Increased	Declined	No change
KPMI	60%	20%	10%	↓			X
KSP KSD NK	10%	10%	10%	↓		X	
KS	25%	10%	10%	↓			X
KSP TDS	20%	30%	20%	↓			X
KDU	25%	30%	40%	↓		X	
KD	45%	10%	15%	↓		X	
KLKMS BMTT	20%	20%	35%	↓		X	
KSP M	15%	5%	35%	↓		X	
KACA	70%	70%	85%	No change	X		
KMB	40%	10%	30%	No change		X	
KSP PCU	85%	5%	45%	No change		X	
KSP JTA	35%	10%	20%	↓		X	
KSP B	45%	15%	15%	↓		X	
KSP I	35%	15%	10%	↓		X	
KSP S	50%	20%	25%	↓		X	
BSG	40%	30%	20%	No change		X	
KM	50%	50%	20%	No change		X	
KT VI	5%	5%	5%	No change			X
KM	20%	20%	5%	No change			X
KSP SK	10%	No change		No change			X
KSP LG	80%	50%	No change	↓		X	
KSP SAM	20%	20%	No change	No change			X
KPTB	No change			No change			X
KTM	100%	100%	60%	No change			X
KG	60%	No change	10%	No change			X
KS	20%	No change	10%	No change			X
KSP MS	30%	40%	30%	No change			X
PMKS	60%	No change		No change			X
KSP M	20%	45%	65%	No change			X
KKB	2%	10%	2%	No change	X		
KKDPP	No change	5%	No change	No change		X	
KBBS	40%	No change	25%	No change			X
KKGJ	30%	45%	65%	No change			X
KM	5%	10%	2%	No change	X		
KKDPP	No change	10%	No change	No change		X	
KHS	50%	No change	25%	No change			X
KSA	20%	10%	5%	No change			X
KG	70%	40%	20%	No change	X		
KDKIJ	20%	15%	No change	↓			X
PKY	15%	10%	No change	No change			X
KSP SMB	80%	25%	50%	No change	X		
KSP MMS	80%	50%	No change	No change			X
KA	5%	No change	5%	No change			X
KSP NJA	40%	20%	15%	No change		X	
KJB	40%	30%		No change			X
KSRB	10-15%	20%	25%	↓	X		
KSGG	50%	30%	No change	No change			X
KSPSA	70%	50%	No change	No change			X

KSP GPD	40%	No change		No change	X		
KUD DR	45%	No change	20%	No change	X		
ADL	40%	50%	No change	↓			X
KPPK	25%	30%	45%	No change	X		
KLM	10%	30%	25%	No change	X		
KSMB	5%	15%	30%	No change		X	
KPPKJ	20%	5%	40%	No change	X		
KMB	10%	No change	30%	No change			X
KSP DT	50%	50%	25%	No change		X	
KSP US	50%	50%	50%	No change		X	
KUM	20%	5%	15%	No change		X	
KOOMR	15%	10%	No change	↓			X
KBMTN	10%	10%	20%	↓	X		
KM	20%	No change		No change			X
KSG	10%	No change		↓			X
KMS	30%	No change	30%	No change			X
KSB	96%	96%	60%	No change		X	
KSD	60%	40%	50%	No change	X		

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