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Supply of Consumer Goods, Per Capita Consumption due to Covid-19 Pandemic

I Wayan Widnyana[1]✉, Sapta Rini Widyawati[2]

University of Mahasaraswati Denpasar, Bali, Indonesia

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Abstract

The Covid-19 pandemic that is happening now is affecting the economy. This study aims to examine changes in the supply of consumer goods to Bali from outside Bali in the Indonesian territory and changes in the per capita consumption of the Balinese population, due to the Covid-19 pandemic. Two events were observed, namely the first event was the announcement of the first positive case of Covid-19 in Indonesia, and the 2nd event was the determination of the status of a national disaster by the Indonesian government. Data analysis was performed using a different test with the SPSS v.23 program. The results of the analysis found that there was a difference in the supply of consumer goods to Bali from outside Bali and the per capita consumption of the Balinese population in the first and 2nd events. The supply of consumer goods and per capita consumption decreased significantly after the announcement of the first positive case of Covid-19 and then further decreased after the Indonesian government declared a national disaster status. The determination of the status of a national disaster has a greater impact on reducing the per capita consumption of the Balinese population than the announcement of the first Covid-19 patient. As a result of Covid-19, it is hoped that the Bali Provincial Government needs to make policy breakthroughs to encourage the fulfillment of consumer goods needs in Bali independently so that they do not always depend on supplies from outside Bali. The Covid-19 pandemic has reduced people's income and reduced buying power, thus demanding people to be smarter in managing finances, including adjusting consumption patterns according to the priority scale of needs.

✉Corresponding author :
Address: Jl. Kamboja No.11A
Denpasar, Bali. 80233.
E-mail : wywid@unmas.ac.id

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INTRODUCTION

The widespread spread of the Covid-19 pandemic in the world including Indonesia certainly has an impact on the economic stretch. The World Health Organization (WHO) has stated that Corona Virus Disease 2019 (COVID-19) is a pandemic and Indonesia has stated that covid-19 as a non-natural disaster in the form of disease pandemics which must be undertaken as an effort to prevent it from increasing cases. Starting since the Indonesian government on March 2, 2020 announced the first two patients confirmed cases of Covid-19 in Indonesia, followed later on March 14, 2020 President Jokowi established the Covid-19 container as a national disaster. This situation certainly affects the freedom of movement in various community activities, companies and countries.

Jogiyanto (2012: 392), in signaling theory explained that the information published as an announcement will give a signal to interested parties in decision making. If the announcement contains a positive value, then it is expected that there will be a reaction when the announcement is received by the interested parties. The reaction is shown by a change in activity. Stakeholders first interpret and analyze the information as good news or bad news (Wang & Zhu, 2013). The results of this interpretation of information will later influence decision making, if many interested parties have a pessimistic view due to bad news from the information received, then it will reduce its activities. Conversely, if interested parties look optimistic due to good news from information received, then he will strengthen his activities (Hu, 2017).

Several studies related to an event have an impact on distribution cooperation (Yu et al., 2001; Zhao et. Al., 2002; Simatupang et al, 2004; Kwon & Suh, 2004), distribution of goods (Ogden, 2006; Prajogo & Olhager, 2012), supply chain performance (Panayides & Lun, 2009; Wu et al. 2014), market reactions (MacKinlay, 1997; Cready & Desert, 2010), consumption behavior (Teppa, 2014), consumption expenditure (Ezeji et al., 2015; Varlamova & Larionova, 2015), household consumption (Tapsin & Aycan, 2014; Ioan, 2015; Mignouna, 2015; Nicklaus, 2015; Varlamova & Larionova, 2015), household consumption (Fikri & Amri, 2014; Leon & Rafael, 2015).

Distribution of goods between islands in Indonesia is a vital activity to be disrupted. Bali, one of the regions in Indonesia, relies heavily on the supply of consumer goods from outside Bali, accounting for more than 70%, mainly supply from Java, has been disrupted because some regions outside of Bali, which have so far been carrying out regional quarantine. The same situation Covid-19 has also reduced the income of Balinese residents and impacted on per capita consumption. Table 1 shows the percentage of supply of consumer goods from outside Bali to Bali and Table 2 shows the level of per capita consumption of Bali population, during the period December 2019 - March 2020. Table 3 shows the level of per capita consumption of Bali population over the last five years.

Table 1. Supply of Consumer Goods to Bali from Outside Bali Indonesia December 2019 - March 2020

Month	Supply of consumer goods in Bali (food and non-food)
December 2019	71.35%
January 2020	70.78%
February 2020	65.17%
March 2020	40.62%

Source: Data processed

Table 1 shows the percentage decline continues every month. The biggest decrease occurred in March 2020, which was 40.62%, namely in the month in which Covid-19 cases were discovered in Indonesia and the government established the status of a national disaster. The decrease in March almost doubled from December 2019, indicating that the determination of the status of a national disaster had a significant impact on reducing the supply of consumer goods in Bali.

Table 2. Per capita consumption (food and non-food) of Bali population December 2019-March 2020

Month	Per capita consumption (food and non-food)
December 2019	Rp. 115,681
January 2020	Rp. 112,715
February 2020	Rp. 107,530
March 2020	Rp. 90,379

Source: Data processed

Table 2 shows a decrease in the amount of consumption per capita every month. The biggest decrease occurred in March 2020 compared to February 2020 which was Rp. 17,151. As it is known that in March 2020 the Covid-19 case was first discovered in Indonesia and the government established the status of a national disaster.

Table 3. Per Capita Consumption (food and non-food) Bali Population in Year 2015-2019

Years	Per Capita Consumption (food and non-food)
2015	Rp. 1,045,145
2016	Rp. 1,099,561
2017	Rp. 1,332,085
2018	Rp. 1,367,032
2019	Rp. 1,387,154

Source: Data processed

Table 3 shows that in normal circumstances there is an increase in per capita consumption of the population of Bali every year from 2015 - 2019.

In this study there are two objectives. The first objective is to examine the effect of the Covid-19 case on the supply of consumer goods in Bali, carried out with the amount of supply of consumer goods to Bali around the event. The second research objective examines the per capita consumption of Bali population, carried out by comparing the average per capita consumption before and after the event.

This study differs from other studies in that it analyzes the decisions taken by suppliers of consumer goods and per capita consumption on two events at once. Other studies only analyze after and before an event.

RESEARCH METHODS

This research is a quantitative study of an event study, a study that studies the market reaction to an event whose information is published as an announcement. Event studies can be used to test the information content of an announcement (MacKinlay, 1997). This research data uses data from Bank Indonesia and the Bali provincial statistics bureau in 2019, then processed according to research needs. Data analysis used a different test with the help of SPSS version 23 (Ghozali, 2105).

An announcement contains of course information, so some related parties will react around the time of the announcement (Cready & Desert, 2010). The reaction included the supply of consumer goods entering Bali from outside Bali. To find out the reaction is done by testing the difference/ supply gap of consumption goods statistically. The gap in the supply of consumer goods is the difference in supply that occurs due to an event with the consumption supply under normal conditions (Falk & Levy, 2009). If the supply of consumption goods of an event is equal to the supply of normal consumption goods, then there is no gap in the supply of consumption goods or the gap in supply of consumption goods is equal to zero (Sujono, 2016). If the average supply of consumer goods is zero, it means that there is no information content of changes in the supply of consumer goods that occur. The understanding of time around events in this study is from seven days before the event to seven days after the event (Groenwold, 2014).

The calculation of the supply of consumer goods due to an event in this study is formulated in equation (1). Calculation of normal consumption supply using model-adjusted beta, formulated in equation (2). The estimation period is generally the period before the event period. The event period is also called the observation period or event window. Calculation of the supply gap of consumer goods is in equation (3). Calculation of supply of consumer goods due to an event according to equation (1):

$$RDS_t = \frac{DS_t - DS_{t-1}}{DS_{t-1}} \quad \text{.......................................(1)}$$

Where: RDSt = realization of supply of consumer goods in the t-period, DSt = supply of consumer goods in the t-period, DSt-1 = supply of consumer goods one day before the t-period. To calculate the supply of consumer goods normally using model-adjusted beta contained in equation (2) with the formula:

$EDS_t = \alpha + \beta.DS_t + e_t$…….....(2)

Where: EDSt = supply of consumer goods normally in the t-estimation period, α = intercept, β = slope coefficient, DSt = supply of consumer goods normally in the t-period, et = residual error in the t-estimation period.

To calculate the gap in the supply of consumer goods is to reduce the supply of consumer goods due to events with a normal supply of consumer goods. The gap in the supply of consumer goods can be calculated by the formula in equation (3):

$GDS_t = RDSt - EDSt$ ……...(3)

Where : GDSt = Gap of supply of consumer goods in the t-period, RDSt = supply of consumer goods due to events in the t-period, EDSt = supply of normal consumption goods in the t-estimated period.

To answer the public reaction as indicated by per capita consumption because of the announcement of Covid-19. To test whether the Covid-19 pandemic caused differences in per capita consumption of Bali population before and after the announcement by the government.

In calculating changes in per capita consumption using the formula in equation (4) follows:

$$PCK_t = \frac{CK_t - CK_{t-1}}{CK_{t-1}} \text{ …….....} (4)$$

Where: PCKt = Changes in per capita consumption in the t-period, CKt = per capita consumption in the t-period, CKt-1 = per capita consumption one day before the t-period.

RESULTS AND DISCUSSION

To find out the average supply of consumer goods to Bali from outside Bali on 1st event, namely since the Indonesian government announced the first two patients confirmed Covid-19 cases in Indonesia on March 2, 2020 and on 2nd event, namely after President Jokowi declared Covid- 19 as a national disaster on March 14, 2020.

Table 4. Descriptive Statistics of Supply of Consumer Goods

Day	1st Event		2nd Event	
	Mean	Std. Dev	Mean	Std. Dev
H-7	-0.0106	0.0023	-0.0323	0.0173
H-6	-0.0235	0.0116	-0.0473	0.0176
H-5	0.0002	0.0129	-0.0521	0.0189
H-4	-0.0018	0.0128	0.0001	0.0143
H-3	-0.0165	0.0115	-0.0253	0.0167
H-2	0.0007	0.0093	0.0005	0.0124
H-1	-0.0035	0.0135	-0.0173	0.0172
H0	-0.0015	0.0141	-	
H+1	-0.0127	0.0187	-0.0431	0.0116
H+2	-0.0235	0.0142	-0.0567	0.0134
H+3	-0.0256	0.0171	-0.0854	0.0143
H+4	-0.0308	0.0182	-0.0721	0.0139
H+5	-0.0323	0.0173	-0.0623	0.0137
H+6	-0.0473	0.0176	-0.0125	0.0139
H+7	-0.0521	0.0189	-0.0104	0.0282
Min	-0.0521	-	-0.0721	-
Max	0.0007	-	0.0005	-

Source: Data processed

Table 1 shows the descriptive statistics of supply of consumer goods to Bali from outside Bali on 1st and 2nd events.

Based on Table 1, it can be seen that the 2nd event, namely the determination of the status of a national disaster, becomes the momentum of regional quarantine, so that it is considered the zero point of the event date (H0). It can also be seen that there has been a rather large change in the supply of consumer goods to Bali from outside Bali around 1st event, namely when the Indonesian government announced the first two patients confirmed cases of Covid-19 in Indonesia on March 2, 2020 and around 2nd event, namely President Jokowi declared Covid-19 as a national disaster on March 14, 2020.

Before 1st event, the supply of consumer goods to Bali was still normal with standard fluctuating conditions. In the seven days before the 1st event the supply of consumer goods to Bali decreased compared to the previous day. Six days before the event, the supply of consumer goods fell again. In the five days before 1st event, there was an increase in the supply of consumer goods. However, it fell again in the four days before 1st event. Then it fell again in the three days before 1st event. On the two days before 1st event, there was an increase in the supply of consumer goods again. Meanwhile, one day before the first event, there was another decline in the supply of consumer goods to Bali. This means that during the seven days prior to the first event, the supply of consumer goods from outside Bali to Bali had not been constrained, it was seen that there was still fluctuation. On average, there has been a decline because several regions have started to reduce supply to Bali, even though there has been no 1st event. This is because the news that Covid-19 has spread globally, so there is caution in group activities including sending supplies of consumer goods to Bali.

After the 1st event, the supply of consumer goods to Bali has decreased since the first day and finally continues to fall until the seventh day after the 1st event. One day after the 1st event, it immediately resulted in a decrease in supply. Two days after 1st event decreases, then three days after 1st event drops again. Four days after 1st event, the average decline in supply was getting bigger. Five days after 1st event which is also seven days before 2nd event, the average supply decline is getting bigger. Six days after 1st event, which was also six days before 2nd event, the supply of consumer goods to Bali continued to decline. And seven days after 1st event or five days before 2nd event, there was a large decline in the supply of consumer goods to Bali. So, if the average supply of consumer goods to Bali is calculated from the first event to the seventh day thereafter, there is a decrease of 3.474%. The decline in the supply of consumer goods as a result of Covid-19 is not a decrease that was previously predicted but a decline due to compulsion due to natural events. This is where the Balinese people have no planned preparation to fulfill their consumption.

What is interesting is the supply of consumer goods in the four days prior to the 2nd event there was an increase in the supply of consumer goods to Bali. This is due to the dwindling supply of consumer goods in Bali and the tendency to loosely monitor the implementation of regional quarantine in several areas which are the source of the supply of consumer goods to Bali. In the three days before the 2nd event, supply again decreased and increased again in the two days before the 2nd event. One day before the 2nd event the supply fell again.

After the 2nd event there was a continuous decline, the day after the announcement until the seventh day of this study. Starting one day after 2nd event the supply of consumer goods started to fall again. Two days after 2nd event experienced a bigger decline than the previous day and three days after 2nd event decreased even more. The 2nd event has made the government take a stronger stance to reduce any activity outside the home. Four days after the 2nd event there was a decrease in the supply of consumer goods to Bali, but the decline was smaller than the three days after the 2nd event. Furthermore, the league days, six days and seven days after the 2nd event, the supply continues to decline, it's just that the decline is not as big as the

days previous. This situation is due to the fact that supplier companies have begun to feel a lack of income. The inability to deliver supplies to Bali is not due to internal factors, but rather to the global condition that is being hit by Covid-19.

These events (1st and 2nd events) are the starting point for a reduction in shipments of goods to Bali, including the supply of consumer goods, because several areas outside Bali have closed both small and large areas. In a signaling theory perspective, 1st and 2nd events are a signal that the Covid-19 pandemic has resulted in a decrease in the supply of consumer goods from outside Bali to Bali.

Table 2. Results of Significance Tests on the Supply of Consumer Goods

Day	1st event			2nd event		
	T	Sig. (2-tailed)	Mean Difference	T	Sig. (2-tailed)	Mean Difference
H-7	0.413	0.652	-0.01037	-0.328	0.681	0.01058
H-6	0.330	0.724	0.01092	-1.301	0.679	0.01146
H-5	0.280	0.723	0.01311	-1.173	0.647	-0.01183
H-4	0.270	0.724	0.01092	-1.569	0.234	-0.01487
H-3	-0.317	0.541	-0.01165	-1.071	0.215	-0.01528
H-2	1.724	0.190	0.01580	-0.119	0.766	-0.01088
H-1	-1.182	0.140	-0.01767	-1.297	0.300	-0.01732
H0	1.471	0.171	0.01708			
H+1	-0.608	0.594	-0.01114	-0.479	0.687	0.01104
H+2	-0.652	0.418	-0.01253	1.012	0.422	0.01576
H+3	0.071	0.778	0.01132	0.475	0.581	0.01238
H+4	0.067	0.778	0.01078	0.455	0.471	0.01024
H+5	-0.428	0.681	0.01058	0.486	0.534	0.01213
H+6	-1.401	0.679	0.01146	0.575	0.550	0.01238
H+7	-1.273	0.647	-0.01183	0.212	0.738	0.01249

Source: Data processed

Table 2 shows the results of the test of the significance of the supply of consumer goods to Bali from outside Bali on the 1st and 2nd.

Based on Table 2, shows that there is a significant difference in the supply of consumer goods around the date of the first patient announcement Covid-19 (1st event) and around the date of announcement of the determination of national disaster status (2nd event).

After analyzing the significance test, it can be seen that the 1st and 2nd events have indeed significantly decreased the supply of consumer goods to Bali from outside Bali. So far, the supply of consumer goods in Bali depends a lot on areas outside Bali. With the Covid-19 pandemic the situation has changed, the supply of consumer goods to Bali has decreased, supplies have become limited and in the end the consumption of the Balinese people has decreased. Of course, it takes innovation and creativity of the Balinese people to be independent in producing consumer goods, so that supplies of consumer goods can be maintained.

All this time most of the consumer goods in Bali are supplied from outside Bali. Covid-19 is an unexpected event. Bali is not ready to produce its own consumer goods to fulfill the needs of the Balinese people. Once the supply of consumer goods decreases, there will be a depletion of supplies so that it can have an impact on the total consumption of Balinese people.

The results of this study are in accordance with the viewpoint of the signaling theory, it appears that there are signals for those who make decisions, namely suppliers of consumer goods for information published as an announcement containing bad news on both events. So that the

information has a real impact on the decline in the supply of consumer goods from outside Bali to Bali.

The results of the study are in line with the results of research by Ogden (2006), Prajogo & Olhager (2012) which found that an event has an impact on the distribution of goods. A bad event can result in disruption of the supply and distribution of goods to a place. The Covid-19 pandemic is an extraordinary event that has an impact on the quarantine of several areas outside Bali which have been the main suppliers of consumer goods. In this study, seen from the supply side, the events 1st and 2nd would disrupt the supply of consumer goods needed by the Balinese population.

To find out the per capita consumption of the Balinese population due to the Covid-19 pandemic, it is necessary to analyze the normality test. Table 3 shows the results of the normality variable of the Balinese per capita consumption variable.

Table 3. Results of Normality Test Variable

Variables	Time	Kolmogorov-Smirnov		Shapiro-Wilk	
		Statistics	Sig.	Statistics	Sig.
PCK_1	Before	0.118	0.116*	0.942	0.632
	After	0.120	0.132*	0.919	0.467
PCK_2	Before	0.191	0.200*	0.918	0.452
	After	0.141	0.200*	0.955	0.773

Description: - PCK is per capita consumption
- subscripts 1 and 2 declare 1st event and 2nd event

Source: Data processed

Based on Table 3 shows the results are entirely insignificant (sig. > 0.05) meaning that the null hypothesis is accepted. Data analyzed were normally distributed. Then the research hypothesis testing uses parametric test that is independent sample t-test.

Table 4 shows descriptive statistics of per capita consumption of Bali population, before and after the two events related to Covid-19.

Table 4. Descriptive statistics per capita consumption of Bali population

Variable	Time	Mean	Std. Deviation
PCK1	Before	102.6235	19.5261
	After	99.0472	17.4320
PCK2	Before	98.3874	20.1481
	after	91.3621	23.4728

Note: n = 7

Source: Data processed

Based on Table 4, after finding the first positive patient of Covid-19, per capita consumption of Bali population decreased. After determining the status of a national disaster, per capita consumption has declined. This means that the decline in per capita consumption of the population of Bali after determining the status of national disaster is greater than before. This descriptive statistic shows that the determination of the status of a national disaster has a greater impact on the decrease in per capita consumption of the population of Bali than the events of the announcement of the first patient Covid-19.

The average per capita consumption after the 1st event decreased compared to that before the 1st event. Before the 1st event the average per capita consumption was 102.6235, while after the 2nd event the average consumption per capita was 99.0472. Likewise, the average per capita consumption after the second event decreased compared to before the second event. Before the second event the average per capita consumption

was 98.3874, while after the second event the average per capita consumption was 91.3621.

The 2nd event has a bigger impact than 1st event, because in 2nd event the government has further expanded the lockdown due to the Covid-19 pandemic. The first event is considered local bad news because only the first Covid-19 patient was found in certain areas, while the second event covers a broader range of information in Indonesia, so the level of information contained in it is for a broader purpose as well.

Base on the perspective of signaling theory, the announcement of 2nd event contains higher bad news information than 1st event. The impact of decreased supply and income due to the Covid-19 pandemic after 2nd event is increasingly felt. The existence of the Covid-19 pandemic on the one hand limits the supply of consumer goods, so that the availability of consumer goods in Bali is limited, on the other hand many companies close their businesses, lay off and lay off their employees, people's income decreases, purchasing power decreases. The limited supply of consumer goods and a decrease in the income of the people in Bali has resulted in a decline in per capita consumption. With income that is not what it used to be, people must manage finances more intelligently, including adjusting consumption patterns according to the priority scale of needs.

Table 5 shows the results of different test per capita consumption of Bali's population before and after 1st and 2nd event.

Table 5. Different Test Results

Variable	t	Sig. (2-tailed)
DS1	3,154	0.008 **
DS2	6,638	0,000 ***

Note: ** significant at $\alpha = 5\%$

Source: SPSS analysis (processed)

Based on Table 5, differences in per capita consumption of Bali population before and after the announcement of the first case (1st event) Covid-19 statistically significant, indicated by the significance value 0.008 < 0.05. Likewise, the difference in per capita consumption before and after the determination of the national disaster status (2nd event) was also statistically significant, indicated by a significance value of 0.000 < 0.05. These results indicate that the announcement that both the 1st event since the announcement of the discovery of the first case of Covid-19, and the 2nd event, namely the determination of the status of a national disaster, had a significant impact on the decline in consumption per capita of the population of Bali.

Currently the Covid-19 pandemic is not a local event, but a global event that has paralyzed broad and massive economic movements. When there was the announcement of the 1st event alone, it had caused the supply of consumer goods from outside to Bali to decline which caused the supply of consumer goods in Bali to decrease. Then the addition of the announcement of the 2nd event had an even greater impact on the decline in the supply of consumer goods to Bali. The absence of a supply of consumer goods from areas outside Bali which has been the basis for this has resulted in a limited supply thus affecting household consumption. Even though the per capita consumption of the Balinese is not only determined by the amount of goods supplied from outside Bali but also by other factors such as buying power, population income, priority needs. However, the decline in the supply of goods from outside Bali to Bali due to Covid-19 could trigger a decrease in the per capita consumption of the Balinese population. This is because the supply of goods is reduced, the supply is running low so that consumption falls.

This is in line with the research of Nicklaus (2015) and Varlamova & Larionova (2015), that an event will affect household consumption, as well as the research results of Fikri & Amri (2014), Leon & Rafael (2015) which found that an event has an impact on community consumption. And this is in accordance with the Covid-19 pandemic like now.

CONCLUSION

Consumer goods play an important role in meeting the needs of the population. The economic value of consumer goods with their supply chains is sufficient to support the

development goals of Indonesia in general and Bali in particular. When viewed from the supply side, the availability of consumer goods in Bali depends on supplies from outside Bali, while from the demand side, one of them depends on the level of income of the Balinese people. Continuity of supply and demand will be maintained if conditions are stable without any extraordinary events. The current Covid-19 pandemic is an extraordinary event that is interesting to observe regarding the supply of consumer goods and consumption per capita in Bali.

This study found that the supply of consumer goods to Bali and the per capita consumption of the Balinese population during the Covid-19 outbreak had a significant effect. There are differences in the supply of consumer goods to Bali and the consumption per capita of the Balinese population, before and after the first event, namely the announcement of the first case discovery of Covid-19, and the 2nd event, namely the determination of the status of a national disaster. The average supply of consumer goods and consumption per capita of the population of Bali, decreased after the 1st event and again decreased after the 2nd event.

The results of this study are in accordance with the signaling theory view that there is a signal for those who make decisions, namely suppliers of consumer goods and public consumption for announcements containing bad news on both events. As a result of this information, there was a significant decrease in the supply of consumer goods from outside Bali to Bali and the consumption per capita of the Balinese population.

In this condition, although there are many obstacles, there is a big enough opportunity to increase the capacity of local producers to improve their abilities and skills in producing consumer goods needed by the Balinese people. The role of local government is to make wise regulations that favor the independence of local producers. Providing special training and easy credit facilities will certainly encourage local producers and the community to develop the production of consumer goods, as well as increase people's income which tends to decline due to the Covid-19 pandemic. Increasing the opinion of the Balinese people will lead to a multiplier effect which will further increase per capita consumption.

REFERENCES

Bank Indonesia. (2020). Statistik Ekonomi dan Keuangan Indonesia (SEKI). https://www.bi.go.id/id/statistik/seki/bulanan/Pages/SEKI-MARET-2020.aspx.

Caporale, G.M., Plastun, O., & Makarenko, I. (2019). Force Majeure Events And Stock Market Reactions in Ukraine. Brunel University London, Economics and Finance Working Paper Series, (19-05). https://dx.doi.org/10.2139/ssrn. 3362155.

Badan Pusat Statistik. (2020). *Laporan Bulanan Data Sosial Ekonomi Provinsi Bali Maret 2020*. Badan Pusat Statistik Bali.

Cheung, Y.W., & Ng, L.K. (1998). International Evidence on the Stock Market and Aggregate Economic Activity. Journal of Empirical Finance, Vol.5, 281-296.

Cready, W., & Gurun, U. (2010). Aggregate Market Reaction To Earnings Announcements. Journal of Accounting Research, Vol.48, No.2, 289-334.

Ezeji, E.C., & Emmanuel, I.A. (2015). Determinant of Aggregate Consumption Expenditure in Nigeria. Journal of Economics and Sustainable Development, Vol.6, No.5.

Ferguson, A., & Lam, P. (2016). Government Policy Uncertainty and Stock Prices: the Case of Australia's Uranium Industry. Energy Economics, Vol.60, 97-111.

Fikri, M., & Amri, A. (2014). *Analisis Konsumsi Masyarakat Indonesia Sebelum dan Sesudah Krisis*. Jurnal Prespektif Pembiayaan dan Pembangunan Daerah. Vol.1, No.3.

Ioan, H.T. (2015). Consideration Regarding the Evolution of Incomes, Expenditure and Consumption of Household in Romania. Procedia Economics and Finance, Vol.32, 1469-1476.

Jogiyanto, H. (2012). *Teori Portofolio Dan Analisis Investasi, Edisi Ketujuh*. Yogyakarta: BPFE.

Falk, H., & Levy, H. (2009). Market Reaction To Quarterly Earnings' Announcements: A Stochastic Dominance Based Test Of Market

Efficiency. Management Science, Vol.35, No.4, 425-446.

Gallear, D., Ghobadian, A., & Chen, W. (2012). Corporate Responsibility, Supply Chain Partnership and Performance: An Empirical Examination. International Journal of Production Economics, Vol.140, No.1, 83–91.

Ghozali, I. (2015). *Aplikasi Analisis Multivariate dengan Program IBM SPSS Versi 23*. Semarang: Badan Penerbit Universitas Diponegoro.

Groenwold, N. (2014). Fundamental Share Prices and Aggregate Real Output. Applied Financial Economics, Vol.14, 651-661.

Hu, H. (2017). The Impact of Sovereign Rating Events on Bank Stock Returns: An Empirical Analysis for the Eurozone. The Journal of Risk Finance, Vol.18, No.4, 338-367.

Keputusan Presiden Republik Indonesia Nomor 12 tahun 2020 tentang Penetapan Covid-19 sebagai Bencana Nasional.

Kache, F., & Seuring, S. (2014). Linking Collaboration and Integration to Risk and Performance in Supply Chains via a Review of Literature Reviews. Supply Chain Management: An International Journal, Vol.19, No.6, 664–682.

Khan, S. A., Liang, Y., & Shahzad, S. (2015). The Effect of Buyer-Supplier Partnership and Information Integration on Supply Chain Performance : An Experience from Chinese Manufacturing Industry. International Journal Supply Chain Management, Vol.4, No.2, 20–34.

Leon, M.. & Rafael, F. (2015). Residential Versus Financial Wealth Effect on Consumption from Shock in Interest Rate. Economic Modelling Journal, 81-90.

MacKinlay, A.C. (1997). Event Studies In Economics And Finance. Journal Of Economic Literature, Vol.35, 13-39

Mignouna, D.B. (2015). Microeconometric Analysis of Household Consumption Expenditure Determinant in Yam Growing Area of Nigeria and Ghana. Tropicultura Journal, Vol.33, 226-237.

Nicklaus, C. (2015). The Effect of Household Income on Household Consumption in China. Thesis. Lund University, Sweden.

Ogden, J.A. (2006). Supply Base Reduction: an Empirical Study of Critical Success Factors. Journal of Supply Chain Management, Vol.42, No.4, 30–40.

Panayides, P.M. & Lun, Y.H.V. (2009). The Impact of Trust on Innovativeness and Supply Chain Performance. International Journal of Production Economics, Vol.122, No.1, 35–46.

Persaulian, B., Aimon, H., & Anis, A. (2013). Analisis Konsumsi Masyarakat. Jurnal Kajian Ekonomi, Vol.1, No.2, 1–23.

Sambasivan, M., Siew-Phaik, L., Abidin, Z.M., & Leong, Y.C. (2013). Factors Influencing Strategic Alliance Outcomes in A Manufacturing Supply Chain: Role of Alliance Motives, Interdependence, Asset Specificity and Relational Capital. International Journal of Production Economics, 141(1), 339–351.

Sandberg, E. (2005). Logistics Collaboration in Supply Chains: A Survey of Swedish Manufacturing Companies. Thesis. Linköpings University, Sweden.

Simatupang, T. M., Wright, A. C., & Sridharan, R. (2004). Applying the Theory of Constraints to Supply Chain Collaboration. Supply Chain Management: An International Journal, 9(1), 1–29.

Sujono, S. (2016). *Dinamika Penerapan Supply Chain Management*. Jakarta: Indonesia Book Project.

Teppa, F. (2014). Consumption Behaviour and Financial Crises in the Netherland. DNB Working Paper, Vol.453, No.200.

Tapsin, G., & Aycan, H. (2014). An Analysis of Household Consumption Expenditure in EA-18. European Scientific Journal, Vol.10, No.16.

Varlamova, J., & Larionova. (2015). Macroeconomics and Demographic Determinants Of Household Expenditure In OECD Countries. Procedia Economics and Finance, Vol.24, 727-733.

Wu, I.L., Chuang, C.H., & Hsu, C.H. (2014). Information Sharing and Collaborative Behaviors in Enabling Supply Chain Performance: A Social Exchange Perspective. International Journal of Production Economics, Vol.148, 122–132.

Yu, Z., Yan, H., & Cheng, T.C.E. (2001). Benefits Of Information Sharing With Supply Chain Partnerships. Industrial Management & Data Systems, Vol.101, No.3, 114–121.

Zhao, X. D., Xie, J. X., & Leung, J. (2002). The Impact of Forecasting Model Selection on the Value of Information Sharing in A Supply Chain. European Journal of Operational Research, Vol.142, No.2, 321–344.