

## THE ROLE OF INVENTORY IN CIRENG AND CIMOL NELLA'S BUSINESS DEVELOPMENT IN THE COVID-19 PANDEMIC PHASE

RESI JUARIAH SUSANTO

Program Studi Manajemen

STIE Ekuitas Bandung

Jl. PHH. Mustofa No. 31 Bandung 40124

*e-mail: resi.juariah@gmail.com*

### ABSTRACT

*This community service was carried out with the aim of improving the inventory system method for Cireng and Cimol Nella SMEs. Where at this time the service also provided assistance and carried out directly or practiced in calculating inventory using the EOQ method so that it was precise and no raw materials were wasted so as not to cause harm to the cireng and cimol nella business owners.*

*The problem that is often faced by Cireng and Cimol Nella MSME actors is the inaccuracy of ordering raw materials so that orders are made continuously, in the pandemic era, entrepreneurs want effective ordering of raw materials so they don't often meet with suppliers so that when ordering raw materials they can be stored for not too long to avoid damaged products and make product quality less good too. The method used is the EOQ (Economic Order Quantity) method with a yield of 885 kg for each order with a total order of 3 orders per year. The output targets to be achieved are in the form of publication in journals and increased understanding and skills of business actors.*

**Key words:** *abstract, italic, mathematical equation*

### PRELIMINARY

The era of the Covid-19 Pandemic occurred in early 2020 where the whole world was affected by the virus where the WHO (World Health Organization) announced that Covid was a global pandemic including Indonesia. (Dong, et al, 2020). The number of infected people is also increasing day by day, affecting the economy in every country, including Indonesia, due to the effect of the existing lockdown to reduce the number of infected people. (Yamali and Putri, 2020).

The city of Bandung was included in the highest number of infections in early 2020 when the pandemic took place (<https://covid19.bandung.go.id/data>) so that Bandung was also one of the cities in Indonesia where PPKM was implemented. As a result of

the lockdown, many MSMEs have closed, including food or culinary MSMEs. While Bandung is a city of culinary tourism, geographically the city of Bandung has 31 districts with an area of 16,729.640 ha. Demographically, it has a population of 2,340,624 million people. The city of Bandung is known for its creativity in all fields. There are not a few MSMEs that were pioneered by the people of Bandung City. This was proven when Bandung succeeded in getting the title of creative city which was awarded by the Creative Economy Agency (BEK). The city of Bandung can also be said to be a place for those who are looking for experience in entrepreneurship. The following table shows the economic contribution of the existing industrial subsectors. As in the table below:

Table 1. Contribution of the Creative Industries Subsector to the Economy in the City of Bandung in 2016-2018

No	Industry Creative	2016	2017	2018
		Kontribusi PDR	Kontribusi PDR	Kontribusi PDR
1	Periklanan	Rp 95.717.220.000	Rp 108.101.493.000	Rp 120.180.198.000
2	Arsitektur	Rp 43.507.827.000	Rp 49.137.042.000	Rp 54.627.363.000
3	Desain	Rp 93.541.829.000	Rp 105.644.641.000	Rp 117.448.830.000
4	Fasion	Rp 593.462.047.000	Rp 650.709.497.000	Rp 709.523.063.000
5	Film, Animasi, Dan Video	Rp 1.123.981.000	Rp 1.232.404.000	Rp 1.343.794.000
6	Fotografi	Rp 11.239.811.000	Rp 12.324.044.000	Rp 13.437.937.000
7	Kerajinan	Rp 382.868.881.000	Rp 432.405.973.000	Rp 480.720.793.000
8	Kuliner	Rp 179.836.984.000	Rp 197.184.696.000	Rp 215.006.989.000
9	Layanan Komputer Dan Piranti Lunak	Rp 5.619.906.000	Rp 6.162.022.000	Rp 6.718.968.000
10	Musik	Rp 11.239.811.000	Rp 12.324.044.000	Rp 13.437.937.000
11	Pasar Dan Barang Seni	Rp 8.701.565.000	Rp 9.827.408.000	Rp 10.925.472.000
12	Penerbitan Dan Percetakan	Rp 37.091.378.000	Rp 40.669.344.000	Rp 44.345.191.000
13	Permianan Interaktif	Rp 2.809.953.000	Rp 3.081.011.000	Rp 3.359.484.000
14	Aplikasi Dan Game	Rp 4.495.925.000	Rp 4.929.617.000	Rp 5.375.175.000

	Depelover			
15	Seni Pertunjukan	Rp 2.360.360.000	Rp 2.588.049.000	2.821.967.000
16	Televisi Dan Radio	Rp 11.239.811.000	Rp 12.324.044.000	Rp 13.437.937.000
<b>Total</b>		<b>Rp 1.484.857.289.000</b>	<b>Rp 1.648.645.329.000</b>	<b>Rp 1.812.711.098.000</b>

Source: (Badan Pusat Statistik, 2019)

The development of the culinary sub-sector in the city of Bandung is always increasing from year to year and has a variety of culinary variations. The culinary sub-sector is potential for entrepreneurs in the city of Bandung because it's easy to get started. Both existing entrepreneurs and new entrepreneurs. Finally, the culinary sector is always eyed by new entrepreneurs or entrepreneurs who aim to expand their business in the city of Bandung.

Cireng and Cimol Nella are businesses affected by the pandemic. Cireng and Cimol Nella are also a typical snack from Bandung. This business was founded in 2017 which initially only sold cireng around his house in the East Bandung area and then developed by selling cimol. Cireng and cimol also experienced a decline at the start of the pandemic and started to rise again when everyone was in a state of lockdown (staying at home) but wanted to have a snack, finally this business started selling again, but the owner of this business, Mrs. Nella, has also tried to don't buy raw materials too often to avoid spreading the virus.

The problems that arise are how to purchase the right raw materials so you don't meet with suppliers too often and how to store the raw materials so that they are in good condition when they are sold. Due to the limited tools and knowledge to carry out inventory, this service provides assistance and training in carrying out or calculating the right inventory so that the business will be even better in the future and order raw materials precisely.

## EXECUTION METHOD

The implementation method in this community service program is divided into 2, namely by conducting training and mentoring. For the first time, this was done by approaching the problems in the Cireng and Cimol Nella business. This is intended to find out the existing problems and get an idea of how to sort the existing problems later and how to overcome or find solutions to these problems. From this it also makes service actors and business actors have thoughts or views from the same perception so that later in the implementation there will be no more mistakes.

The second is by carrying out the mentoring process by observing directly how business actors carry out the inventory process and while conducting discussions and calculating how to order the correct inventory so that the raw materials are of good quality. After that, business actors are also asked to try to calculate themselves using the formula that has been given and can immediately practice how to place an order and how to store the correct raw material goods.

The formula to be used in the inventory calculation is by using the EOQ (Economic Order Quantity) formula. The formula according to Heizer and Render (2015) which is commonly used to calculate EOQ is as follows:

$$EOQ = \sqrt{\frac{2DS}{H}}$$

Where:

- EOQ = number of units per order
- D = annual requirement
- S = ordering cost per order
- H = holding cost per unit

## RESULTS AND DISCUSSION

The purpose of this community service activity is to help businesses to be able to count inventory and calculate the number of orders for raw materials (Economic Order Quantity) so they don't meet with suppliers too often in

the midst of a pandemic. Both do calculations manually or digitally (using a laptop) to make it easier for businesses to calculate existing inventory or inventory needs that must be prepared beforehand. The first calculation made was the demand per year of 3230 kg and an ordering cost of IDR 50,000 per month, and an ordering holding cost of IDR 412.3. The formula used is:

$$EOQ = \sqrt{\frac{2DS}{H}}$$

$$EOQ = \sqrt{\frac{2(3230)(50.000)}{412,3}}$$

$$= 885,1 \text{ / kg / year}$$

Because with the right inventory calculation, business actors can minimize meeting with suppliers. by calculating using the formula:

$$N = \frac{D}{Q^*}$$

$$N = \frac{3230}{885,1} = 3,6 \sim 3 \text{ orders}$$

And with the right inventory calculation, it will also help business actors to save more on expenses both in terms of purchasing raw materials or in terms of shipping costs or maintenance costs of raw materials available to business actors. By preparing inventory, business actors can also prepare if there is a price increase in the midst of a pandemic like now because under these circumstances it is very possible for raw material prices to rise so business actors can prepare ahead of time. By using calculations for inventory, business actors can also avoid the accumulation of raw materials for their business. Because with the buildup of raw materials will also require more costs. From the calculation of the EOQ (Economic Order Quantity) method given to business actors it also makes business actors learn again by using a formula that is easy to understand and not difficult to work on. At first it was quite difficult to understand, but after

being given directions and examples of questions it became easier for business actors to do these calculations and from the calculations given, the business actors became more aware of inventory needs for their business so that it could run even better. After the business actor can use the formula or calculation, the business actor can continue to use it in the future for any type of business related to inventory.

In addition, the planned output is an increase in understanding and skills in the community. Because through this dedication the MSME industry can still run well even though it is still in the current COVID-19 pandemic.

## CONCLUSION

By using inventory calculations, the *cireng* and *cimol Nella* businesses can be more easily managed in making supplies where the goods are in accordance with what is needed and the quality of raw materials is maintained because there is no more hoarding of raw materials which can cause raw materials to be damaged and with inventory calculations too business actors can contact fewer suppliers than usual, who must always meet with these suppliers every month.

## REFERENCES

- [1] Assauri, S. (2008). *Manajemen Produksi dan Operasi edisi revisi*. Jakarta: Lembaga Penerbit Fakultas Ekonomi Universitas Indonesia.
- [2] Dong, Y., Mo, X., Hu, Y., Qi, X., Jiang, F., Jiang, Z., & Tong, S. (2020). Epidemiology of covid-19 among children in China. *Pediatrics*, 145(6), 1–12.
- [3] Heizer, J dan Render, B. (2015), *Manajemen Operasi: Manajemen Keberlangsungan dan Rantai Pasokan*, ed. 11, Jakarta: Salemba Empat.
- [4] <https://covid19.bandung.go.id/data>, diunduh pada tanggal 7 Desember 2021
- [5] Yamali, F. R., & Putri, R. N. (2020). Dampak pandemi covid-19 terhadap

ekonomi Indonesia. *Ekonomis: Journal of Economics and Business*, 4(2), 384–388.