

Improvement of Asri Jewelry Production Capacity During Covid-19 Pandemic

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ABSTRACT

This study aims to determine strategies for increasing Asri Jewelry production capacity by continuing to apply health protocols during the Covid-19 pandemic. They are socialization, procurement of hand sanitizers, simple handwashing stations, masks, hand gloves, building materials, assistance in repairs, and expansion as well as arrangement of production sites. The study finds that increased workers' awareness of using masks, and hand gloves, a more comfortable workplace, and more structured flow of production activities. This implies that workers' health and safety are fully guaranteed. The improvements of the production site provide workers the comfortability bringing an increase of the total production capacity of Asri Jewelry.

Keywords: Asri Jewelry, Health, Improvement, Production Capacity, Safety, Small and Medium Enterprises (SMEs)

INTRODUCTION

Small and Medium Enterprises in Indonesia have numerous of business units, with around 99.99% (62.9 million units) of the total business leaders. From 2017 to 2018, it had seen an increase in business units by 2.02%. Additionally, they contributed to Indonesia's 2017 Gross Domestic Product (GDP) of 60.90% with a development rate of 9.64% from 2017 to 2018 (Kementerian Koperasi dan UKM, 2018). Deputy Chairman of the National Economic and Industry Committee (KEIN), Arif Budimanta, revealed that in 2019 Small and Medium Enterprises increased the economic growth rate by 7%, in addition to their contribution of 36.82% to Indonesia's GDP ("KEIN Sebut UMKM," 2019).

Bali's region with the largest number of SMEs in 2019 was Gianyar Regency. It takes over about 50 percent (around 91,000 business units) of the total SMEs in Bali ("50 Persen Jumlah UMKM," 2019). A great number of SMEs is beneficial to Bali's economy, particularly in employment and increasing people's income. This is, in turn, to lead people to create jobs rather than to find work.

Bali Province Cooperatives and Small and Medium Enterprises Office revealed that, on April 16, 2020, there were 401 SMEs affected by Covid-19 in Gianyar Regency ("Ribuan UMKM," 2020). In contrast to the prior monetary crisis hitting merely large businesses, during this pandemic, small businesses also suffered the impact. This happens because of *social distancing*, *physical distancing regulations*, and appeals to stay at home reduce shopping activities and almost non-existent. This brings dramatic impact on the closure of SMEs.

One of the SMEs that has felt the profound impact of the pandemic is Asri Jewelry. It is a Small and Medium Enterprise engaged in the production of carving handicrafts out of cow and buffalo bone waste (Yuliastuti, Kepramareni, Sugiantari, & Giri, 2019). Cow and buffalo bones used in the production of this handicraft are those no longer used from slaughterhouses. It produces products of regional superiorities from Tampaksiring, a part of the Gianyar Regency, the average residents of which produce bone carving crafts.

In this new normal era, SMEs are required to continue implementing health protocols in their business, such as Asri Jewelry. Previously, it has not implemented proper health protocols, such as no hand sanitizers, inadequate Personal Protective Equipment (PPE) for workers, poor production workplace arrangements. This has made the production site unclean, uncomfortable, insecure air circulation, and burdensome to apply physical distancing. Comfort, cleanliness, and good air circulation at the production site, will have considerable impacts on the quality of the products. Apart from health, worker safety is crucial to consider. The slightest accident or dangerous incident should be coped with, otherwise it will hurt workers and companies either on a small or large company (Restuputri & Sari, 2015).

The area of production at Asri Jewelry is about $3 \times 4 \text{ m}^2$, in which all production processes, such as bone-cutting, engraving, punching, sanding, and cleaning, go through without clear boundaries (mixed). This unorganized workplace significantly slows the production process and becomes inefficient. This limits the number of products, and the production capacity fails to fulfill the existing orders. Besides, it makes the application of social distancing or physical distancing difficult to do. The workers also do not have intense awareness to use personal protective equipment, such as masks, and gloves. They all times are exposed to the respiratory problems or lung cancer, attributable to fine dust generated from the remains of the production process.

During this pandemic, SMEs' workers are required to keep wearing masks and hand gloves to avoid the possibility of being exposed to the Covid-19. Therefore, the community service team from Mahasaraswati Denpasar University who received Brin Research and Technology service grant scheme of Regional Superior Product Service Program (PPPUD), feel necessary to provide another assistance for the second year, by disseminating the importance of using masks and hand gloves while working, procurement of masks, hand gloves and hand sanitizers, procurement of building materials for repair and expansion of production sites, and implementing health protocols, as well as assistance in arranging the workplace of Asri Jewelry.

RESEARCH METHOD

As the initial stages, the team conducted an introductory survey at Asri Jewelry to obtain information about the current conditions of the business premises and production sites. In addition, it was to determine what difficulties the business owner experienced during this pandemic. By the survey results, the methods of implementation are:

1. The team will disseminate the importance of implementing health protocols in SMEs in the current new normal era.
2. The team will then carry out the procurement of building materials to repair and extend the production space. In addition, they will provide hand sanitizers, and masks and hand gloves as personal protective equipment for workers.
3. The team will create a design and assisted Asri Jewelry in repairing, and extending its production site. Additionally, they will arrange of the production site and show how to use the personal protective equipment.

In applying the methods, Asri Jewelry will provide time for socialization and participation in repairing production sites and structuring the arrangement of production sites to avoid interference in the production activities.

RESULTS AND DISCUSSION

Socialization of Health Protocol Application

The community service team conducted an outreach program to the owners and workers of Asri Jewelry. The purpose is to increase their awareness of the importance of using hand sanitizers in business premises (shops), making hand washing facilities in production sites, and using personal protective equipment such as masks and hand gloves in every production activity. Having new understanding in keeping their health, they had more awareness of using hand sanitizers, masks, and hand gloves as one of COVID-19 preventions.

Procurement of Hand Sanitizers and Portable Hand Washer

During the COVID-19 pandemic, it is mandatory for everyone to diligently wash their hands with soap or a hand sanitizer. The team have purchased hand sanitizers and made a portable handwasher at the Asri Jewelry production site. Next, they have handed over hand sanitizers and the handwasher to Asri Jewelry as seen in Figure 1.

Figure 1: Hand Sanitizer and Portable Handwasher Delivery



The hand sanitizers were then is placed at the Point of Sale Displays allowing buyers to remove common pathogens on their hands before walking into the shops, while the portable handwashers were placed in front of the entrance of production site enabling workers to easily and cleanly wash their hands. This is crucial to prevent the COVID-

19 spread. It is to guarantee the cleanliness of the products is maintained as well as avoid the possibility of the COVID 19 virus on the products.

Procurement of Masks and Hand Gloves

Workers are supposed to use masks and hand gloves before working. Masks should be used when carrying out production activities, to prevent fine dust of bone carving remains that they might inhale. Particularly during the pandemic, masks are the main necessity when traveling or doing all activities outside the home possibly meeting many people.

In addition, hand gloves are substantial for workers to use. When carving, workers use tools – such as a hand drill or *foredom* to carve bones, grinding machines for cutting, and sanding machine to finish bone carvings – with serious possibility of accidents to occur. Figure 2 shows the production activities of workers using masks and hand gloves.

Figure 2: The Use of Masks and Hand Gloves



Figure 2 shows Asri Jewelry workers have started using masks and hand gloves in their production activities. With the use of masks and hand gloves, the health of workers can be maintained and the risk of work accidents can be minimized.

Extension of Production Sites

With a very narrow production room of 3x4m², while all production activities are carried out in the same room, it is doubtful that workers can carry out physical distancing. This was not comfortable and made the production flow poor-structured leading the number of products limited, and frequently unable to fulfill the orders received. In the discussions, it was decided to make improvements and expand the production site.

In carrying out repairs and expansion, firstly we have made a purchase building material before reconstructing the production site by expanding and improving fragile parts of the production since it has not been repaired in a long time. Then, we have

rearranged it to a more well-structured workplace. Figure 3 shows the before-and-after reconstruction process.

Figure 3: The Process of Repair and Expansion of The Production Site



Figure 3 shows the improvements and expansion from an area of $3 \times 4 \text{m}^2$ to $6 \times 4 \text{m}^2$. It becomes wider enabling them with physical distancing measures. Additionally, the air circulation is getting better, it reduces the accumulated dust at the production site.

It provides comfort for workers enabling the production process to run more efficiently and effectively. More efficient and effective production enables them to higher productivity. The production of accessories, home decorations, as well as cow or buffalo head displays has increased from 150 units per month to more than 200 units per month.

CONCLUSIONS

The outcome of various explanation above lead to the conclusion that this activity is very beneficial to Asri Jewelry in increasing its production capacity without ignore the health of workers. The outreach program was able to increase awareness of using masks and hand gloves to maintain their health and prevent work accidents.

The hand sanitizers and portable handwasher facilitate them to disinfect their hands ensuring the products free from the novel corona virus. The repair and expansion of production sites as well as assistance in arranging the workplace allowed them to work comfortably with physical distancing measures. These led to the increase of production capacity of Asri Jewelry. Currently, it is able to produce more products and fulfill existing orders both from domestic and overseas.

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