Empowerment of MSMEs during the covid-19 pandemic with information technology

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ABSTRACT

Onion rambak (onion crackers) and rice karak (rice crackers) “Acha” is a home industry in Boyolali, specifically in Gumukrejo, Teras District, Boyolali Regency. Hazardous materials such as borax are not used in the ingredients that composed the karak and rambak sold by this home industry. Mrs. Sunarni, the owner, is assisted by her family in running the rambak and karak businesses. This business was started about ten years ago, but the business license had not been obtained. This company’s NPWP business license was in the form of village’s group NPWP. The output was substantial, with 75–100 kg of onion rambak and 50 kg of rice karak produced. Businesses dropped in sales as people’s purchasing power declined due to decreased income caused by the COVID-19 pandemic. Production could be increased by changing the packaging logo to one that was more eye-catching and easier for the public to remember. In addition to serving sales through the Whatsapp application, sales were also made through e-commerce applications such as Shopee. Using online sales through e-commerce applications, the production results and sales revenue for Mrs. Sunarni’s rambak and karak businesses increased.

KEYWORDS
Rambak Onion; Karak Rice; E-commerce; COVID-19; On-Line sales

1. Introduction

Onion Rambak (onion crackers) and Rice Karak (rice crackers) “Acha” is one of the home industries in Boyolali, precisely in Gumukrejo, Teras District, Boyolali Regency. This home industry sells karak and rambak without adding hazardous materials such as borax. Mrs. Sunarni, the owner of the rambak and karak business, runs her business with the help of her family. This business has been running for about ten years but does not yet have a business license. The NPWP business license is in the form of village’s group NPWP. The production is quite large, with the production of onion rambak ranging between 75 and 100 kg and rice karak 50 kg. The products are available in the markets. The business was also obtainable online, but sales were discontinued due to high shipping costs. Now, sales are handled by resellers. The products can be ordered through the Whatsapp application and are mostly marketed to Yogyakarta and Semarang, other cities in the same province. One kilo of onion rambak costs Rp. 13,000, while rice karak costs Rp. 14,000. The average income received by the company is approximately Rp. 150,000 per day. The business with such income is categorized as MSMEs, micro-small-medium- enterprises.

The author reviewed research on e-commerce from previous studies to help find ways to increase the income of MSMEs during the COVID pandemic. Geetha [1] used an enhanced Bert Base Uncased model to improve the performance of aspect-based sentiment analysis. Bjyrjen [2] investigated the distribution of the last sustainable mileage in urban planning. A mobile application makes modern payment much easier and more convenient. In a qualitative study, Eriksson [3] researched consumer resistance to mobile payments for in-store purchases. The effect of disconfirmation on the credibility of online reviews through an experimental analysis was studied by Jha [4]. Hulme [5] looked into the unwanted exchange, the
international trade as a direct and indirect driver of worldwide biological invasion. Effective strategies are developed to reduce the number of late orders. Cals [6] used deep reinforcement learning to solve online batching problems. The effects of digital complementarity on productivity and employment were investigated by Ballestar [7] Sanchez-Diaz [8], in his research, analyzed inequalities in access to online delivery services and how the COVID-19 pandemic affects marginalization. PEN [9] researched poverty alleviation through e-commerce: village engagement and policy demonstrations in rural China. Treiblmaier [10] investigated the impact of blockchain on e-commerce and developed a framework for a prominent research topic.


Online review behavior needs to be analyzed for the development of an online store as research conducted by Gutt [31] on reviewed system design as a strategic instrument for shaping online review behavior and economic outcomes. The impact of e-service quality and customer satisfaction on customer behavior in online shopping was investigated by Rita [32]. Online shopping in treatment-seeking patients with the purchase-shopping disorder was studied by A. Müller [33]. Adding a new flavor can increase buyer interest in purchasing a packaging product. Cohen [34] carried out the FEMA GRAS assessment of natural flavor complexes, a citrus-derived flavoring agent. Sometimes seller needs to know the purchase intent to determine the follow-up service, as aligned with Arishto’s [35] research on purchase intentions of Indonesian backpackers when booking accommodation through online travel agencies. A dual market structure design for independent power grid system reform in Taiwan was set up by Tsay [36]. The application of nanoscale storage materials in cold chain logistics of fresh agricultural products e-commerce was studied by Bai [37]. Supply chain quality control of agricultural products based on Internet+ was investigated by Shen [38]. The classification of online consumer review sentiment using word vector representation was studied by Bansal [39]. Sellers can advertise in a variety of ways, including video advertising, to increase sales. It aligns with Iwashita’s [40] research on a secure transaction management
framework for video advertising affiliate services. Also, human interaction should be maintained. Sulikowski [41] wrote the monitoring of human website interactions in a recommender system. Using collaboration, content-based filtering, and rating variance, Tewari [42] generated a set of top item recommendations. Gao investigated the correlation of the logistics industry with other industries, evaluation of empirical evidence from China [43].

Onion Rambak and rice Karak “Acha” development potential is lacking, considering that they were not given much attention at the start of online sales of MSME products, and the packaging of the products was said to be less catching. As a result, these MSME products are struggling to attract buyers among young people. Changing the packaging and the slogan printed on the product packaging is necessary to attract purchasing interest from young people.

2. Method

Fig. 1 depicts the detailed activity plan for implementing the program. The figure describes five activities: coordination, logo design, covid socialization, marketing, and marketing education. The first coordination activity was a preliminary visit to Onion Rambak and rice Karak “Acha”, one of MSME Partners, who would be assisted from July 17-28, 2020. The second activity held from August 2–9, 2020 was to create logo designs and product slogans (to help them with logo design and selection and give them an identity of MSME Partner logos and slogans). The third activity was to socialize and provide understanding and explanation about COVID-19.

3. Results and Discussion

The author visited the rice Karak and onion Rambak Acha production house, accompanied directly by Mrs. Sunarni, the business owner. Fig. 2 shows that Mrs. Sunarni, wearing a white headscarf and white shirt, welcomed the students of Universitas Muhammadiyah Yogyakarta. The student explained to Ms. Sunarni about the program they were running.

Fig. 1. Activity sequence block diagram
Fig. 2. Visits to MSME owners

Fig. 3 depicts the processes for making rice karak and onion rambak dough. The first step is to put all ingredients in a large bucket and mix them until the desired consistency is obtained.

Fig. 3. Making dough

Mrs. Sunarni is assisted by her husband while making it, as shown in Fig. 4. The figure shows that after all the dough has been processed, the rice Karak and onion rambak must go through the drying stage under direct sunlight. This drying process must be repeated until the Karak and rambak are completely dry to allow them to last longer.

Fig. 4. Manufacturing process

As a form of prevention from spreading the COVID-19 virus and increasing our awareness of the importance of washing hands before and after activities, a portable sink is installed, as seen in Fig. 5.
Fig. 5. Installing a sink

As shown in Fig. 6, some service community members assist Mrs. Sunarni in packing rice karak and onion rambak, and others explain marketing methods on various social media platforms such as Shopee and other marketplaces.

Fig. 6. Packing karak

Fig. 7 illustrates Marketplace and Shopee accounts for rice karak and onion rambak Acha marketing.

Fig. 7. Shopee account

The members of the service community also maintain friendly relations with local residents, provide free masks and attach stickers to residents’ homes, as shown in Fig. 8. It is to ensure that they will always wear masks for protection from COVID-19. The stickers distributed to residents' homes also include information about the procedures they must follow while conducting activities outside and when returning home.
4. Conclusion

The community service program of the students of Universitas Muhammadiyah, Yogyakarta Program at onion rambak and rice karak “Acha”, one of the Boyolali Home Industries, aims at strengthening the empowerment of MSMEs based on information and communication technology to go to the global market during the COVID-19 pandemic. The program has been successful in creating a model of community empowerment based on information and communication technology in Boyolali, Central Java, Indonesia. It can be expanded to create a larger community of MSMEs capable of independently managing information technology applications to enhance business and increase competitiveness, welcoming the ASEAN economic community and the free market.

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Author Contribution

The activity plan to implement the program. There are five activities, namely coordination, logo design, socialization of covid, marketing, and marketing education.

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Conflict of Interest

The authors declare no conflict of interest.

References


