Improving Marketing strategies of An-Nahl Honey Bee Farm Products through E-Commerce Marketing on An-Nahl's Website

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Keywords:

Sales figures An-Nahl's honey Online marketing Abstract The An-Nahl honey bee farm of the Madiun Group, owned by Mr Sunardi, is located in the Musir Hamlet, Banjarsari Wetan Village, Dagangan District, Madiun Regency, and was started in 2000. The main products produced are honey, royal jelly, bee pollen, and solid propolis. The honey was collected from the flowers of calliandra, mango, kapok, rambutan, narra, bay leaf, water spinach, and rubber. An-Nahl honey bee farm already has a business license, namely PIRT No. 10953519010730 - 20. Its honey has become a superior product in Banjarsari Wetan Village, Dagangan District, Madiun Regency since 2016. Despite the success in its production, the An-Nahl honey bee farm faced marketing problems. It is still using conventional marketing techniques. Product distribution is carried out only in the Madiun area. Moreover, the level of sales was considered as low less than ten bottles per month. The farm needed to advance its marketing strategy by expanding marketing media as a solution. The method of carrying out the community service activities were through a workshop on social media, training and assisting media social marketing course, and evaluating the programs. The study result shows that the material provided was a fresh material for participants with percentage of understanding increasing by 52% and above 113% for each type of honey volume in sales. Therefore, this program was successful in providing new knowledge to honey bee farmers in social media marketing strategy. The farm is also expecting this program to be continued.

1. INTRODUCTION

Honey is a very high-quality bee product from nature. Bees create honey from nectar and help pollinate flowers to produce seeds and fruits. Bees are one of the valuable animals that support the availability of food on this earth and are very important to be preserved in the form of a honey bee farming business. Honey bee cultivation is a business in insect farming based on the availability of flowers in nature. This cultivation does not interfere with the natural surroundings because it does not create hazardous waste and even supports the productivity of agriculture and plantations in the vicinity. Bees help spread pollen to reach the pistil and collect unused pollen as bee pollen in their hives (Taufiq, 2020).

In general, people use honey for health or medicine. Honey has been believed to have the following benefits: First, it is beneficial to maintain the beauty of facial and body skin. The second benefit is that honey can alleviate cough. In 2007, a study from Penn State College of Medicine involving 139 children found that honey effectively relieved coughs. The dextromethorphan (DM) in honey can soothe coughs at night and improve sleep quality. Another study published in Paediatrics was conducted on 270 children aged 1-5 years who had a cough and cold. Children who drank two teaspoons of honey 30 minutes before bed experienced a decrease in cough intensity. Another benefit is that honey prevents cancer and heart disease. Honey contains flavonoids and antioxidants that reduce the risk of certain types of cancer and heart disease. The next benefit of honey is that it is a complete source of nutrition. Honey contains various vitamins and minerals needed by the body,

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including niacin, riboflavin, pantothenic acid, calcium, copper, iron, magnesium, manganese, phosphorus, potassium, and zinc. The fifth benefit of honey is that it is powerful to heal the wounds of 80% of 56 patients with leg wounds and ulcers that could not be healed with conventional treatments, (Redaksi manfaat, 2022). After their wounds were smeared with unprocessed honey, almost all of the patients showed an increase in healing except for one person with a particular case. The sterile wounds remained sterile until they healed whereas infected wounds and ulcers became sterile within one week. Honey has great therapeutic effect on chronic wounds, ulcers, and burns. Research results from Noori S. Al-Waili, et al (2011) recommends the use of honey in clinical practice as a natural and safe wound healer. Nuwa, MS et al (2018) conducted a study of 10 articles. he found that honey was a good alternative for the treatment of DFU (diabetic foot ulcers) wounds. The next benefit of honey is that it fights bacteria; honey has been shown to kill pathogens such as E. coli, Salmonella, methicillin-resistant Staphylococcus aureus. and Pseudomonas aeruginosa. The last benefit of honey is that it has the potential to prevent low white blood cell counts (Yana, 2014). Because of its great benefits, honey is suitable for consumption and sale.

Technological advances significantly affect buying and selling behaviour. The trading process has taken advantage of many technological advances, such as the internet through online trading. Various online businesses and goods delivery services have sprung up by utilizing the internet networks, such as online shops, e-commerce, and marketplaces. Shopping online has become common for internet users in Indonesia given the many conveniences to obtain the goods we need. One does not need to go out of their house to shop, and the items purchased will arrive quickly, thus saving more time, eliminating travel costs, and effortless.

There is a difference between marketplace and e-commerce. A marketplace is a form of online business in an intermediary stall that provides facilities for traders to sell their products. Traders pay for services to developers or with a sales sharing system in the marketplace. Five examples of the best marketplaces in Indonesia that we can easily find are Bukalapak, Shopee, Tokopedia, Blibli, and Lazada. Five examples of international marketplaces include Amazon, Ali Baba, eBay, Tmall, and Taobao. E-Commerce is an online store that uses a b2b (business to business) and b2c (business to consumer) business model. Marketplace using the c2c business model (customer to customer) is a consumer from a marketplace selling products to other consumers (Jubelio, 2021). E-Commerce is a business industry that people are currently talking about as indicated by the number of users in 2019, more than 135 million people. The five best e-commerce platforms in Indonesia according to Marchel (2019) are Orami, Bhinneka, Zalora, Sociola, and Indollote.

In Indonesia, technological advances that encourage the rise of the online trading industry, both marketplace and e-commerce, must be followed by MSME actors because consumers generally want convenience in obtaining the goods they need. Many merchants have joined as partners in various marketplaces, and 80% of marketplace partners have made testimonies that sales turnover is increasing. The online shop model (e-commerce) also shows a high level of sales. Marchel (2019) wrote that Orami in 2019 alone had 10 million buyers; Bhinneka had 7 million buyers, Zalora and Sociolla had 5 million buyers.

Faculty members have done many coaching MSMEs to expand their online marketing network. Evasar et al. (2019) have assisted in marketing MSME products in Tales-Ngadiluwih Village, Kediri Regency, East Java, through e-commerce training activities. These service activities can increase partner knowledge about online marketing and sales figures. Then Nasrullah, et al (2017) wrote that E-Commerce Assistance in MSMEs in Cerme-Ngimbang Village, Lamongan Regency, East Java. The program succeeded in increasing the knowledge and motivation for trading online.

Ridho (2018) conducted a case study on Facebook marketing conducted by a Cingkrak meatball stall in Makassar. This study found that advertising using Facebook services has many contents that connect the products with the public, so that more consumers know the products. Jatmiko, et al. (2018) researched the online marketing management of Macaroni Huhhah Yogyakarta. Marketing management is carried out through Instagram, preceded by planning and continued by application, monitoring and marketing control. Instagram features comprises likes, comments, biodata, followers, captions, hashtags, and give away. Macaroni Huhhah's marketing through Instagram makes this product more widely known and reduces promotional costs.

Banjarsari Wetan Village, in Dagangan District, Madiun Regency, has several superior products, including honey, palm fibre brooms, catfish floss, and woven patchwork mats. Honey is a product of the An-Nahl honey bee farm pioneered by Sunardi since 2000. The business of producing honey started when he was assisted by Perhutani KPH Madiun and attended training on raising honey bee production in Tretes Malang. The honey bee farmer harvests honey from the flowers of calliandra, mango, kapok, rambutan, narra, bay leaf, acacia, cashew, water spinach, and rubber. There are other products in small quantities, namely solid propolis, termite jelly, and bee pollen. The price of 600 ml bottled honey varies based on the source of honey is sold at various prices according to its type. Honey from flowers of rambutan, calliandra, and mango is sold for IDR 120,000/bottle. Meanwhile, for kapok or rubber honey flower, it costs IDR 100,000/ bottle. Furthermore, 30 ml of royal jelly is sold for IDR 100,000/bottle while pollen or bee pollen with a volume of 150 ml is sold for IDR 50,000. Then an empty bee box is sold for IDR 150,000/box, and the one that contains a bee colony is sold for IDR 800,000 to IDR 1,600,000. Solid propolis is given free as a medicine for those in need. Furthermore, the sales rate of these honey products was still low, which was less than ten bottles per month.

In 2020 the honey bee farm managed by Sunardi owned around 150 bee boxes that graze on his own.

Sunardi's honey bee farm is not only in Madiun area but also outside the city, such as Gresik, Kediri, Tulung Agung, and Pati. From these 150 boxes, two large plastic drums of honey can be produced in one harvest. Sunardi said that raising bees was very dependent on the flowering season. During the flowering, honey can be harvested once a week or in two weeks, but if it is not in the flowering, honey can be harvested once in two or three months and cannot be harvested. An-Nahl's products have a P-IRT (business license) NO. 10953519010730–20. The farm has seven workers from Banjarsari Wetan Village residents and surrounding areas, and they alternately according to their respective responsibilities.

The chief of Banjarsari Wetan Village, Samekto (2015-2019) and Yani Edi Wibowo (2019-2025) revealed that the village government supported Sunardi's honey bee farm business. Through the village government, An-Nahl has become an original product of Banjarsari Wetan and is always included in bazaar activities in the village, district, and regency, not only in Madiun but also in Nganjuk. Those activities are ways to introduce honey from Banjarsari Wetan to the public. Honey from An-Nahl honey bee farm was designated as the flagship product of Banjarsari Wetan Village in 2016. Moreover, partnering with the Biology Education Study Program of Universitas PGRI Madiun in 2019 developed the farm into An-Nahl Group Madiun, which consists of beekeeper of Aphis mellifera spp. group and stingless beekeeper of Trigona sp. group. There were two problems experienced by An-Nahl Group Madiun bee farm. The first one was low sales rate, which was ten bottles per month. This problem might have been caused by conventional marketing strategy. The sales method was still manual through the words of mouth, and the marketing area was limited in Madiun Regency. The second problem was that the farm did not have the knowledge of how to introduce their products to various media platforms to be better known by the broader community in Madiun Regency and its surroundings. One way to overcome these problems was to promote An-Nahl Group's products online through e-commerce on An-Nahl Web. Therefore, it was necessary to conduct workshops and online marketing assistance for An-Nahl's products with various sales features. The targets of this activity are members of the An-Nahl Group, namely two groups of beekeepers communities around An-Nahl farms and five officials from Banjarsari Wetan Village. The Aphis mellifera spp. beekeeper group had ten members. The stingless beekeepers of Trigona sp. group had seven members.

2. METHOD

The target of this activities was *Aphis mellifera* honey bee breeder group and Trigona sp stingless honey bee breeder group, the An-Nahl Group (consists of 2 groups, named honey bee breeders from *Aphis mellifera sp* and stingless honey bee breeders from *Trigona sp*), communities around honey bee farms and village officials in Banjarsari Wetan, Dagangan District, Madiun Regency, East Java. The activity was carried out for nine months, from April to December 2021. The method of implementing this activity is workshops and ongoing mentoring.

The steps for this activity are as follows:

2.1 Preparation

This stage prepared the person in charge of the Regional Superior Product Development Program Team (PPPUD) and determined the speakers for the e-commerce workshop. Subsequently, the An-Nahl honey farm was then prepared as the target group and place for the workshop, the community service team identified the needs and the resources owned by the partners (An-Nahl Group).

2.2 Program planning

The program is planned for implementing workshops and e-commerce assistance carried out by involving the PPUD Team, owners, and workers at the An-Nahl Group farm.

2.3 The stage of formalizing the action plan

Vacuum packaging equipment was provided in the context of technology transfer to extend the shelf life of smoked milkfish and smoked catfish in order to improve their marketing.

2.4 The implementation

This phase of the activity was conducting workshops and online marketing assistance via the e-commerce platform. The workshop is held for one day. Online marketing assistance was carried out for five months. The workshop resource person is Andria S.Kom,M. Kom, with workshop materials on e-commerce and the creation of online marketing media. The activity was planned to be attended by 35 people, namely owners, workers, village officials, and the community around An-Nahl Madiun Group. Achievements in this activity are measured by understanding participants at the workshop material and an increase in sales figures after 3 months. Pretest and posttest were conducted to assess the understanding of the workshop participants.

2.5 Evaluation Stage

The evaluation was done on aspects of knowledge, attitudes, and sales figures. It was carried out on the workshop participants for aspects of knowledge and attitudes, then specifically for aspects of sales figures measured after three months of mentoring on an online marketing application.

3. RESULTS AND DISCUSSION

Based on the observations and interviews, which were carried out before the PPPUD activities with workshops and online marketing assistance were carried out, the An-Nahl Group did its marketing manually through word of mouth, put into shops, and exhibitions within Madiun Regency. The most modern marketing strategy that has been carried out is participating in exhibitions in Madiun area and ordering via WhatsApp (WA). These conditions encouraged us to carry out workshops and online marketing assistance to increase the reach of sales areas during the COVID-19 pandemic and increase sales figures (Utami: 2020).

An online marketing workshop with e-commerce materials and the creation of online marketing media was held on July 18th, 2020, from 08.30 to 13.30 western Indonesian time. The workshop was attended

by 30 people (35 participants were invited) which are owners, workers of An-Nahl Group honey bee farms, village officials, and the surrounding community. Data obtained from interviews and questionnaires showed that: (1) 100% of participants had never received training in e-commerce, paid Web Marketing, and free online media. This is shown in figure 2; (2) making online marketing media platforms taught in the workshops comprised Facebook, WA Business, Instagram, YouTube, and paid media such as e-commerce; (3) before the activity, participants' level of understanding of online marketing media was only 18%, and after the workshop, the level of understanding became more than 70%. This is shown in Figure 2; (4) participants were delighted and stated that e-commerce was helpful for marketing honey and other merchandise.





Figure 1. E-Commerce Workshop activities a) Adria, S.Kom., M. Kom and Ir. Ani S, MM. M.Si as workshop speakers; b) Workshop participants

Figure 1 shows the condition of the workshop. The speaker (Andria S.Kom., M.Kom.) was explaining about the types and techniques of doing online marketing. Participants listened carefully and some immediately practiced using laptop or smartphone.

The understanding of the workshop participants was measured by a questionnaire. Questionnaires were given before and after the workshop. The pre-test questionnaire consists of 6 questions. The Post-test Questionnaire consists of 8 questions. The questions are namely (1). I know about e-commerce and marketplate. (2). I can distinguish e-commerce and marketplace. (3). I can market honey through WA (whatsApp), (4). I can market honey/ other products on Face book and Instagram. (5). I can create an online shop. (6). I can join shopee, Toko Pedia or Buka Lapak to market my honey/products. (7). The resource person conveys the material in stages and is easy to understand. (8). The material presented is new knowledge for me. The pretest questionnaire contains questions Numbers 1 to 6. The posttest questionnaire contains questions numbered 1 to 8. There are 4 assessment criteria, namely: 1. Disagree (score 1), 2. Doubtful (score 2), 3. Agree (score 3), 4. Strongly agree (score 4) The maximum score for the pretest is $4 \times 6 \times 30$ (participants present) = 720. The maximum score for the posttest is $4 \times 8 \times 30 =$ 960. Participants' achievement level (TCP) is calculated by the formula = (score) total: maximum score) x 100%. Participants' opinions about the novelty of the material are calculated from the percentage of participants who answered Agree and strongly agree (S + SS) on questions 2 and 8. The following is a diagram of participants'

understanding of the e-commerce workshop material.

The workshops and e-commerce assistance brought positive changes to An-Nahl Group honey bee farms in terms of understanding, marketing methods, and sales figures (turnover). In Figure 2, it can be seen that there was an increase in the participants' understanding by 52%. Before and after the workshop activities, their levels of understanding were 18% and 70% respectively. Participants felt that they got 100% new material from the workshop. Therefore, the participants hoped that there would be continued cooperation for marketing assistance through e-commerce and marketplaces. E-Commerce is an online store that uses a b2b (business to business) and b2c (business to consumer) business model. The marketplace is a third party website that acts as an intermediary by connecting sellers and buyers via the internet. At the same time, e-commerce is a website to sell products from the website owner so that they only sell products from one brand or brand. Before the above activities, participants' understanding of e-commerce was still low because their knowledge was only limited to WA and direct (offline) marketing. Then after being given training by their line of business, they better understood how to market their merchandise online via platforms, such as WA, Instagram, shopee, open stalls, online stores, and other social media platforms. The participants were very interested in the presented material that they considered new, so they felt the need and then want to understand and apply it. The above conditions align with the activities carried out by Evasar et al. (2019) that e-commerce training and marketing assistance for MSME products in Tales-Ngadiluwih Village could increase the target groups' knowledge about online marketing.

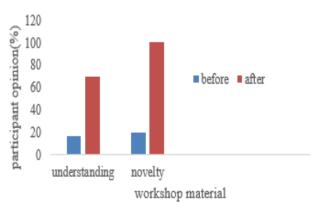


Figure 2. The level of understanding and opinions of participants about the novelty of the workshop material

The workshop activities were followed by five months of mentoring. In the third month of the mentoring, the results of this activity could be enjoyed by the target groups, namely the formation of the An-Nahl Website and an increase in monthly sales figures. The followings are a picture of An-Nahl's Website and the increase in sales figures.

Figure 3 shows the address and image of Web-An Nahl that has been produced in workshops and online marketing assistance. The website became part of several online marketing mediaused by An-Nahl Group after this mentoring.

The use of online marketing can increase the sales of honey as shown in the diagram in Figure 4.

In Figure 4, we can see that the monthly sales of honey increased significantly. After doing the online marketing, the net 500 ml increased by 40 bottles or 400% per month, and the net 250 ml increased by 50 bottles or 250% per month. Also, the net 150 ml increased by 51 bottles or 113% per month. The increase in sales was influenced by online sales training and An-Nahl's web application assistance and application monitoring. The marketing methods used by our partners after the workshop and mentoring activities were more modern and varied. The variety of marketing media platforms used increased thanks to marketing using An-Nahl's website, WA status, Facebook, and Instagram. Sales figures had increased even during the Covid-19 pandemic through these various marketing media platforms. The previously unknown products, such as Bee pollen and Royal jelly, became known and even purchased by consumers. This condition is in agreement with the results of a case study conducted by Ridho, et al. (2018) on the success of the online marketing of Bakso Mas Cingkrank in Makassar.



Figure 3. An-Nahl Honey Web

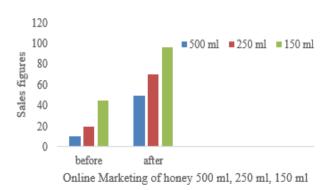


Figure 4. Honey sales figures before and after assistance by the PPPUD Team

Also, the net 150 ml increased by 51 bottles or 113% per month. The increase in sales was influenced by online sales training and An-Nahl's web application assistance and application monitoring. The marketing methods used by our partners after the workshop and mentoring activities were more modern and varied. The variety of marketing media platforms used increased thanks to

marketing using An-Nahl's website, WA status, Facebook, and Instagram. Sales figures had increased even during the Covid-19 pandemic through these various marketing media platforms. The previously unknown products, such as Bee pollen and Royal jelly, became known and even purchased by consumers. This condition is in agreement with the results of a case study conducted by Ridho, et al. (2018) on the success of the online marketing of Bakso Mas Cingkrank in Makassar.

Marketing through An-Nahl's website had make An-Nahl's honey recognized more quickly by more consumers in broader areas than those reached by traditional marketing methods. Madu An-Nahl, which was initially only known in the Madiun's trade area and its surroundings, became known in all areas with the internet network coverage. Sunardi as the owner of An-Nahl stated that after using the An-Nahl's website, the number of customers increased. These buyers came from other regions, namely from Ponorogo, Nganjuk, Ngawi, and Pasuruan. Marketing of An-Nahl's products online would be continued. Sunardi hoped for continued assistance from the UNIPMA PPPUD team to facilitate An-Nahl to operate the An-Nahl's website better and join local, national, and international marketplaces to promote An-Nahl's products more widely. This result is in line with the implementation of activities carried out by Jatmiko (2018) that Macaroni Huhhah Yogyakarta's online marketing management assistance could increase his partner's knowledge about online marketing and sales figures.

4. CONCLUSION

The workshops and online marketing assistance through e-commerce could increase the partners' understanding of online marketing by 52 % and increase product sales numbers above 113 % per month. Our partners (An-Nahl Group) can do honey marketing online with WA, Instagram, Shopee, and the An-Nahl website. Cooperation and assistance will continue to be carried out for online marketing through An-Nahl website and the Shopee marketplace.

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CONFLICT OF INTERESTS

There are no conflicts of interest and significant financial support in this manuscript entitled "Improving Marketing strategies of An-Nahl Honey Bee Farm Products through E-Commerce Marketing on An-Nahl's Website" declared by all the named authors. We have agreed that during the editorial process of this manuscript, the corresponding author will be the contact person. Also, we confirm that all the named authors have read and approved this manuscript.

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