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Production and e-marketing of eucalyptus oil in Buru island towards sustainable development

Esther Kembauw¹, Heny M.C. Sine² and Laurensius Lehar^{3*}

¹Department of Agribusiness, Faculty of Agriculture, University Pattimura Ambon. **Indonesia**

^{2,3}Department of Food Crops and Horticulture, State Agricultural Polytechnic of Kupang, **Indonesia**.

*Correspondence: laurensiusl@yahoo.co.id Accepted: 02 Novt.2018 Published online: 25 Feb. 2019

Indonesian people are familiar with eucalyptus oil and it is the main supporting for people who feels pain and can eliminate itching, bruises and headaches. Eucalyptus oil is planted in one of the isolated island in Indonesia, Buru Island. Eucalyptus plant (*Melaleuca leucadendra syn. M. leucadendron*) grows wonderfully without cultivation in hilly area with an altitude of approximately 100 meters above sea level and hot air temperature with yellow leafed features. To increase the usability of eucalyptus oil in Indonesia economy, the producer of eucalyptus oil, Buru Island needs the efforts to improve the commodity system from the production to marketing. With very limited economic information to market eucalyptus oil, it has difficulty prior to improve the strategy on sale volume as the priority. In globalization era, e-marketing as an online marketing is one of the opportunity to market the product and eucalyptus oil producer needs to improve itself. Different from other marketings, the innovation of communication in e-marketing represents two-way communication as they exchange of opinion for product purchase decisions. The relevant construction of an integrated producing and marketing framework, and more implication on e-marketing principles through social media represents the materialization, storage and content of producing and e-marketing. Government intervention to improve the performance of eucalyptus oil empowers the role of increasing national economy. This journal article is to answer about high-yield production of eucalyptus oil and how e-marketing will effectively market the product.

Keywords: Eucalyptus oil, Producing, e-Marketing Innovation, Sustainable Development

INTRODUCTION

Eucalyptus oil is used as an aromatherapy to relieve respiratory problems. Some also process it into balm and ointment to eliminate pain, itching, bruises and headaches. It is obtained from the process of distilling the eucalyptus tree (*Melaleuca leucadendra*) grows wonderfully without cultivation in hilly area with an altitude of approximately 100 meters above sea level and hot air temperature with yellow leafed features (Souhuwat & Iga, 2013).

In Maluku, eucalyptus forests is potentially spread over in four district such as Buru District or Buru Island 120.000 Ha, Seram District of Seram Island 50,000Ha, in the West Southeast of Maluku District 20,000 Ha and in the Central of Maluku

District 60,000Ha (BPS, 2015). Most of the land on Buru Island is grown with eucalyptus trees which is an endemic plant, can grow naturally. The eucalyptus oil from Buru Island has an excellent quality and purity. The hot and low rainfall climate and it is derived from dry area, and makes the best quality. Although the eucalyptus tree is very easy to grow throughout the mainland of Buru Island, its existence is now being pushed back by the development of the island (Setia, 2013). Its existence began to be pressed by the development that occurred. Overlays of eucalyptus trees must be willing to change into residential areas or other designations of development. The pressure and temptation of a gold mine that is rampant on Buru Island. Looking

at the opportunities, eucalyptus oil business gives a good prospect as an agribusiness product, eucalyptus oil from Buru Island has many advantages compare to other field of agribusiness. The limitation of community in interacting and communicating indicate that the available information facilities are limited, especially for the producers of eucalyptus oil. And this condition is very detrimental to the producers to pursue starting the companies from upstream part of procurement of raw materials of eucalyptus leaves, cooking of eucalyptus leaves, eucalyptus oil refining until packaging and marketing. Therefore, its classification that eucalyptus oil business can be for small and medium enterprises. (Handoyo, 2016). Eucalyptus is as one of home industries in Indonesia which has a role in increasing value added and value income to the labor. Therefore, as an agro industry, eucalyptus oil in Buru Island has growing rapidly. When the monetary crisis hit Indonesia in 1997, there were big numbers of eucalyptus oil agro industries which gave good impact to the economy in Buru Island, but this has changed ever since the crisis which resulted in economic turmoil so that they close and switch to other business (Hays, 2008). To deal with the crisis, small business should analysis the strategy the environment around because the internal and external environment around small business may become the new attacker thus it will be the new opportunity for small business (Cox, 1997). The market structure analysis gives significant information to find good strategy for agro-industry of eucalyptus oil, also in addition to cultivation and capital factors will affect the limitation of the key supporting in marketing, such as information on price changes and market opportunities, cost of payment, promotion and communication knowledge in order to make the eucalyptus oil increase in selling. (Nasution, 1998). The use of the journal article is to:

- 1: Provide information or inputs to the parties whom will be interested in issuing the eucalyptus oil product;
- 2: The information for Maluku government in establishing policies relating to eucalyptus oil product;
- 3: As a management relationship to achieve the purpose of the plan regarding the product, price, channel distribution and promotion;
- 4: As a reference for other researchers who want to investigate more about eucalyptus oil products.

And the purpose of journal article is to answer about high-yield production of Eucalyptus oil and

how to market eucalyptus oil by e-marketing effectively.

Theory

1. Cultivation and Prospect of Development Eucalyptus Oil

Derived from the leaf of a tall evergreen tree, Eucalyptus oil offers many topical and aromatic benefits. Because the main chemical components of Eucalyptus oil are eucalyptol and alpha-terpineol, this essential oil has a soothing, cooling vapor. These effects make Eucalyptus oil ideal for a soothing massage. The benefits of Eucalyptus oil can be easily obtained through inhaling and diffusing. (Sani, Abdulhamid, and Bello, 2014). Aromatically, the compounds of Eucalyptus oil can promote feelings of a clear mind and relaxation. Eucalyptus oil also contains strong purifying properties that are advantageous for the skin and can be used to cleanse surfaces and the air. Due to its cleansing properties, Eucalyptus oil is found in mouth rinses to freshen breath and promote oral health (Mercola, 2016). The benefit of Eucalyptus oil is to find the usefulness of medicines and fragrances and also to use as the raw material of pharmaceuticals industry and perfumes. As a medicine, eucalyptus oil can cure stomach disease, colds, toothache, cough, itching fatigue, and headache. In additional, eucalyptus oil can be used as an insect repellent and a bedbug (Wilson, 2017). Hence, eucalyptus plants can grow in the areas which containing salt water, strong winds, dry and cool air, and also this plant can also be planted in coastal areas and mountains, barren, heat resistant and can sprout after a fire. Moreover, the cultivation of eucalyptus plant can also be used to prevent the erosion of bare soil (Pain, 2007); (Sunarto, 2003). Eucalyptus products can generally be used safely on the skin, as long as the oil is diluted. It should not be applied directly onto the skin until it is diluted with carrier oil, such as olive oil. The dilution should be between 1 percent and 5 percent eucalyptus oil to between 95 percent and 99 percent carrier oil; this equates to roughly one to five drops of essential oil in an ounce of carrier oil.

Eucalyptus can produce irritation and a burning sensation. It should not be used too close to the eyes (Zulnely, Gusmailina, & Kusmiati, 2015). The feasibility of investing eucalyptus oil in Buru Island in terms of financial performance as well as knowing the business sensitivity of eucalyptus oil changes in operational and revenue costs (Xie, 2003).

The fact of eucalyptus production has not been

produced maximally, although eucalyptus oil is the largest production from Buru Island, it is led as eucalyptus agro-industrial area in Maluku. This needs to improve the value of Buru's eucalyptus oil and reaches its maximum production quantity (Ghiffari, 2016). The improvement quality of eucalyptus product depends on the excellent area compare to the ability of human resources and promotion which it is applied in the developed area and will be continuing to supplier of raw material, improve the growth of agro-industrial area by bringing the subsystem of agri-business and bring some facility to grow the industry in the rural area (Wibowo & Santoso, 1997). To identify the performance of agro-industry of each area (Prasetya & Lukiasuti, 2009), some dependent variables are needed, those are: production capacity as the main indicator of the agro-industry performance, production value to measure the performance of partnerships agro-industries at the local level (Syukri, 2009), and the income growth as the criteria of the financial perspective (Gaspersz, 2003). Based on these factors, other factors related to the development of eucalyptus oil agro-industry can be determined. So, the role of each are can be determined as well (cluster of production industry), where there are some priority of development and supportive area.

2. The use of Planning the Innovation of e-Marketing

As the popularity of the Internet has increased, online users were evolving and were limited to World Wide Web navigation and email. The next stage introduced the capability of using the internet to search for information. Now, at last, web users are engaging in e-commerce by purchasing online (Cheliotis & Yew, 2009). There are still many barriers to overcome in order to recruit more customers in the U.S. and worldwide. Privacy and security are growing concern to many internet users. Various surveys have indicated that online shoppers are concerned about their privacy, in particular the confidentiality of the personal data they provide to online retailers (Svedic, 2004). Creating an e-marketing plan is a process through which the firm develops a blueprint for strategic direction. "The blueprint serves as a roadmap to guide the direction of the firm, to allocate resources, and make tough decisions at critical junctures." (Kalakota & Robinson, 1999). The Internet is spreading rapidly across borders and into an online world which is already inhabited by over a billion customers. It is a big part of the future for many businesses as it

offers great benefits to both customers and businesses themselves. Nowadays, more and more customers are spending a big part of their lives in the online world. They are using different online tools to find products or services that best meet their needs and requirements. Thus, it is essential for marketers to analyze demand by customers for online services as well as respond to their needs in this new wired-up world (Smith, 2017).

MATERIALS AND METHODS

Eucalyptus is the genus of trees that is most planted around the world because of its large number of species, the ability to adapt in many different sites, and the possibilities of producing wood for many different uses. It can be planted in most regions of tropical and temperate climates between latitudes 45° S and 40° N, with a high degree of tolerance of extremes in latitudes and altitudes. (CAMPINHOS, 1999). In the natural habitat, regeneration suffers from the attack of insects and diseases that are absent in other environments. Moreover, there is competition for light, water, and nutrients on the part of other plants that grow in the same environment and dispute space. The physical condition of the soil in many cases is inadequate for the development of a good root system. And there also is the danger of fire and other negative factors. (Eldridge, Davidson, Harwood, & van Wyk, 1994). The cultivation of eucalyptus plant is done by a technique in generative and vegetative. For generative, the seeds are harvested and it should come from a good tree and harvest when it peak conception, and for vegetative propagation of eucalyptus plant can be done with cutting of shoots on eucalyptus in utilizing the baby shoots, because eucalyptus has the ability to sprouting, and another one is by grafting or connecting technique of the bottom of the plant (rootstock) with the top of a piece of twigs from an old plant (scion) (Forestry, 2014). The maintenance is including embroidery and fertilization. Eucalyptus as one of the non-timber forest products which it is potential and the domestic demand for eucalyptus is 1500 tons per year and the domestic industry is less than 500 tons per year. To meet the need it is necessary importing eucalyptus oil from China which it indicates that it is the opportunity for development of eucalyptus industry still wide open (Handoyo, 2016).

RESULTS

Result of e-Marketing Strategy Plan for Eucalyptus Oil

Online world is already inhabited by customers around the world, and this is the big part of the future business which offers a great benefits to both customers and business themselves. More customers spend a big part of their lives in the online world, which is to find the product or services that meet their requirement. As an agro-business industry of eucalyptus oil, the producer needs to plan the strategy of e-marketing. This is essential for marketers to analyze demand by customers for online services as well as respond to their needs in the wired-up world (Chaffey & Smith, 2008). The point from where the visitors access the website shapes customer needs and therefore eucalyptus oil product usage. E-marketing strategists can use such information to target the website offerings, and the strategies might include special product, languages used and the amount of the interactivity and multimedia possible for work user (Strauss, El-Ansary, & Frost, 2003). To identify the product that very rarely universal appeal needs the approach to work with. The number of consumers exhibiting a need for the identified the product must be large enough to generate MOA:

satisfactory profit. Eucalyptus oil is the product that needs marketing strategy to attract the customers. The planning strategy for eucalyptus oil in e-marketing is to promote the eucalyptus product well. As (Kalakota & Robinson, 1999) indicated that creating an-e-marketing plan is a process through which the firm develops a blueprint for strategic direction. The blueprint serves as a roadmap is to guide the direction of the firm, to allocate resources, and make tough decisions at critical junctures. The marketing plan for eucalyptus oil from Buru Island should have developed a blueprint for strategic plan. The guidance of direction that agro-business industrial in Buru Island should have located the place as the basis selling (Burnett, 2008). According to (Rayport & Jaworski, 2003), indicated that to analyze marketing opportunity is the activity to have the purpose of identifying and valuing the interest of business opportunity. To analyze marketing opportunity is the tool for the entrepreneurs and senior managers who develop the business or to open new business. An analysis of market opportunities, or which it can be referred to investigate the stage from the beginning of idea creation can be done by seven following steps for market opportunity analysis or

Figure 1. Market Opportunity Framework (Rayport and Jaworski, 2003)



Furthermore, when the business is already established, the strategies designed will reach the targets. The eucalyptus agro-business industrial can be able to dictate online pricing strategies for electronic commerce and distribution plan will identify the areas where promotion is needed and suggest whether online product distribution is fit (Strauss, El-Ansary, & Frost, 2003). Promotion plan of information will give clues about how the Internet fits with the agro-business industrial advertising, sale promotion and other marketing communication which included information of firm and brand positioning in the market place and the content of website will be followed by the current positioning strategies (Ammann, 2004). The bottom line to do e-marketing is the producer of eucalyptus oil should establish their goals. The key to establishing the correct goals for e-marketing initiative is to align with the company's wider marketing goal which it drives the most single powerful channel to reach the audience to achieve customers (Burnett, 2008). Although it is difficult to enter into essential eucalyptus oil industry, there is always an opportunity for the small agro-business industry by developing a product using specific oil such as aromatherapy and massage, and the market will directly understand the target of the customers. (AusAID & SADC, 2006).

Discussion of Producing and e-Marketing of Eucalyptus Oil in Buru Island

The market for eucalyptus oil has grown substantially with estimated total world market around 7000 tons per annum. The US imports have almost doubled to around 730 tons in 2005 compared to 378 tons in 1990 and 455 tons in 1993. In 1990 EC imported 2646 tons and recent EC import figures are unavailable due to broad customs codes. Since previous reviews new value-added products have been formulated and marketed with the internet assisting connection of manufacturers with distributors and consumers with both. (Pain, 2007). Eucalyptus oil from Buru Island is one of the superior products; the good quality of eucalyptus oil is the result of distillates farmers becomes a souvenir for the visitors who come to Buru Island. This is because of the heat and low rainfall climate of Buru Island make these trees are able to thrive. If the temperature or the climate grew increasingly dry, it gives good result (Dept of Tourism, 2016). When the trees can be grown on a large number, in plantation scale or on individual communal woodlots systems, hence, it

will derive the income from the sales of eucalyptus oil which the period of leaf can be harvested for oil production (Coppin, 1995). Another factor of eucalyptus oil is the quality has not been optimal; the reason is because the limit of capital producers and the use of technology are still very simple and the packaging system is not adequate. This is a need of government attention to support the farmers and gives counseling, financial assistant and information technology to e-market the product (Souhuwat & Igaa, 2013).

As modern business practice which involves with eucalyptus marketing, the producer should apply digital application technology to create good market to meet agro-business industry of eucalyptus goal (Strauss, El-Ansary, & Frost, 2003). Based on the customers need, eucalyptus oil producers need to supplement with an understanding of how users actually approach a given website. As (Chaffey & Smith, 2008) said that world wide web is a social able to interact and the interactive communication between marketers and customers, customers themselves and the competition and eucalyptus marketers should have good communication with customers and the competition and also the marketer will get feedback information very quick by developing and positioning a product on the internet.

Most of marketing aims is to achieve the various objectives which have some aspects of e-marketing. There are to have task, what to achieve; the quantifiable quantities which how much time to spend, when to spend and time frame such as (1). Increasing market share; (2) Increasing the number of comments on the blog or website; (3). Increasing sales revenue; (4). Reducing costs, such as distribution or promotional costs; (5). Achieving brand goals, such as increasing brand awareness; (6). Increasing the size of the data base; (7). Achieving customer relationship management goals, such as improving customer satisfaction, purchase enhancing member coordinator, adding partners, or optimizing inventory levels. (Strauss, El-Ansary, & Frost, 2003).

E-Marketing strategy includes 4Ps, product, price, place, and promotion which is connecting to management to reach the aim of the plan (Wilson R. F., 2000). The producers should check to the marketing management such as staff, department structural, and provider of application.



Figure 2. e-Marketing Plan (Strauss, El-Ansary, and Frost, 2003)

Concerning to internet as a change and the place of market place, the attitude of producer should change from people-mediated to technology-mediated (Svedic, 2004). The key of strategy plan is to identify the result of investing that the market result will monitor the actual income and costs. The usage of internet is to monitor the visitors' technological record of each click and also to get accountable budget information, it needs to be calculation about revenue forecast, intangible benefits, cost saving and e-marketing cost. The plan for e-marketing of eucalyptus oil in Buru Island should be implemented when there is a continuous evaluation, because this type of evaluation depends on the purpose of the plan (Dept of Tourism, 2016). To determine the result of marketing company, it can be used the balance scorecard to measure the use of internet marketing program and whether the internet marketing program fits within the company's objectives. As (Sutejo, 2006) indicated that the influence of e-marketing on the marketing strategy has four indications:

1:Segmentation Enhancement; with the internet, market segmentation is increasingly widespread and the internet has not limited the breadth of the reach of marketing in order for consumers around

the world can access easily.

2:Strategy of Cycle Time; the marketing strategies is faster developed, easier to access in all years around.

3:Increasing of accountability in marketing efforts; information is obtained quickly and easily which it will improve the company's strategy and the marketing can be done transparently.

4:Improve the operational strategy in marketing integration strategy; with the integration between the company's marketing strategy and the marketing strategy through internet, it will increase the business strategy and operational strategy.

The advantages of strategy e-marketing are the same as the traditional marketing strategy, which is to keep the customers loyalty, create the customer value. With the technology, marketing has grown quite rapidly and the activities in e-marketing are more widespread. The use of internet facilitates their activities to market their product (Gura'u, 2008) and the use of e-marketing gives the advantages (Kalla & Gupta, 2010) such as:

1:Able to reach a variety of consumers in wide spread places that has not been met by competitors

2:Consumer target is the one who has divided into groups and develops by continuously dialogues

3:Electronic business transactions in low cost, and

e-mail, data files can be moved to selected customers or all consumers quickly.

4:Sales process path from producer to user without having to pass the classical distribution.

5: Producers can add the product to the market very quickly and these changes in the sales plan very quickly.

6:Tracking sales activities have occurred; which steps and results are obtained.

7:Easy to monitor the competitor

8:Create a dialogues between the company the consumers

9:The information program can be distributed by social media or email or file transfer.

CONCLUSION

. Internet has some appeal and excellence for consumers and companies and this media also the latest electronic media to support e-commerce and very rapid growth. By creating homepage and serving the product order via internet with simplicity, it can be said that a global marketer is a huge e-commerce. Internet can create a potential interaction with consumers or customers on a global scale, as quote by (Arnott & Bridgewater, 2002), revealed that the possibility of interaction is captured by marketers as targeting their customers on a one-to-one basis and building brand loyalty relationships. The interaction with customers through the internet is expected to improve marketing performance. In addition, using the internet can give a huge impact and profit for a marketer. Finally, many companies are using online marketing and leave the traditional ways and replace it in modern way as e-marketing.

In implementing the e-marketing application, a suitable planning strategy for the retail company include: (1). The result of situation analysis, which the right strategy is to be applied in marketing development strategy to market the product with wider marketing area and to attract new customers through internet as a media for promotion; (2). From the result of Market Opportunity Analysis (MOA), is the main segment target of the company as customers or large-scale companies.

CONFLICT OF INTEREST

The authors declared that present study was performed in absence of any conflict of interest.

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AUTHOR CONTRIBUTIONS

EK and HMCS design and conduct research, data collection, data analysis and also manuscript writing. LL designs and conducts research, reviewing manuscripts and submit manuscripts. All authors read and approved the final version

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