

Sustainable Malaysian Rare Fruit Management for Large Scale Commercialization

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Article Info

Volume 82

Page Number: 12517 - 12522

Publication Issue:

January-February 2020

Article History

Article Received: 18 May 2019

Revised: 14 July 2019

Accepted: 22 December 2019

Publication: 24 February 2020

Abstract

There is a lot type of local fruits which has nutrition in Malaysia because this country is one of the local exporter's fruit to worldwide. In Malaysia, there are more than 370 kinds of fruits and 16 types of fruits classified as primary fruit such as durian, banana, mango etc. The rest are classified as rare fruits or also be known as underutilized fruit species. Rare fruits can be categorized as hard-to-find fruits and are rarely grown commercially. The questionnaire develops based on plant growth, medical value, type of rare fruit and commercialization. As a result of this research, researcher develops a strategy to conserve and increase the commercialization of these rare fruits species in Malaysia. Furthermore, this research can help the ensures the continuity of every Malaysian rare fruit that has potential medical value and the Malaysian rare fruits can be commercialized at the domestic and overseas market in the future.

Keywords: Plant Growth Stages, Medical Value, Rare Fruits, Commercialization

I. INTRODUCTION

There is a lot type of local fruits which has nutrition in Malaysia because this country is one of the local fruit exporters to worldwide. This is supported by the Department of Agriculture (2015) state that RM 964,437 for the value of fruit exported to other countries. This is because most local fruits found in Malaysia have high commercial value for worldwide markets such as durian, mango, banana, etc. According to Muniam (2012) states that these local fruits have been increasing in demand at the domestic's market and overseas markets because of its taste and nutritious taste for every local fruit. Apart from the taste, local fruit contains nutrients such as various types of vitamins and minerals according to the type of fruit that plays an important role in the health of the human body.

1.1 RESEARCH QUESTION

The overarching research question is:

- i. How to develop the strategy for sustaining selection rare fruits to embed commercialization value?

1.2 RESEARCH OBJECTIVE

The purpose of this research is to focus on a strategy that could help rare fruits for sustaining and to embed commercialization value.

- i. To develop the strategy for sustaining selection rare fruits to embed commercialization value.

II. LITERATURE REVIEW

2.1 COMMERCIALIZATION

As mentioned by Crawford & Benedetto (2014) say that the commercialization or know as a launch can describe a time that firms to make a decision about whether the product goes to the market or not. Commercialization is the process of the connected steps to bring a new product to the market (Jordan, 2010). Furthermore, commercialization can help the new product to sustain and penetration in the market by introducing a new product to the customer.

2.2 PROCES

To know the needs and wants of the customer, the firms must conduct the research because want to learn who will use the product, who will buy the product and who is it beneficial (Lorette, 2017). According to Krohn (2013) states that 75% of the business will fail because of poor marketing understanding, or the inability to manufacture quality products in a timely manner. According to Bonsib (2013) states that the focus on a direction to explore, understand the market and what satisfies the customer needs and wants. Innovations must be more aggressive in marketing the new product commercially until the international level and do not end the research stage only (Mohamad, 2014).

2.2.1 PRODUCT

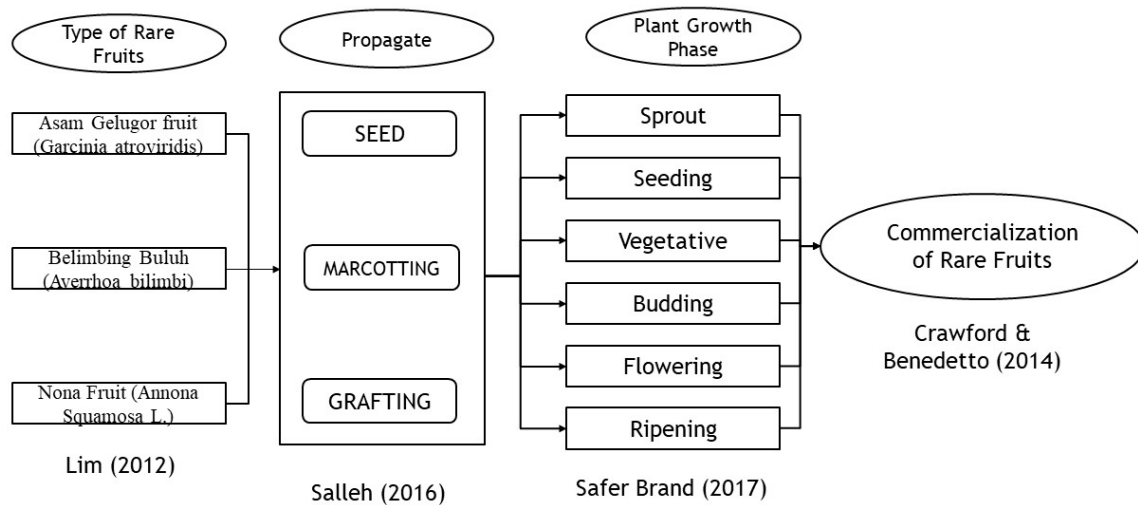
There is a factor that must be considered by innovations to lunch a new product into the market which is developing the right product, the right price, channel, the right customer, promotions and perfect time (Jabil, 2017). To

maximize the chances for success, the innovations build up the sales team and leverage the commercialization strategy to give the information to the customer in order customer understanding the new product and what the benefit they can get after the purchase (Bonsib, 2013). This is claim support by Crawford & Benedetto (2014) states that trial of the new product to share the information with the customer because the customer can learn the advantage and disadvantage of the good and service

2.2.3 PROMOTION

Through the educational program and media such as television, radio, textbook syllabus, seminar etc can increase the awareness and knowledge about the product (Ismail, et al., 2012). According to Barroso (2007) says that advertising can accelerate the consumer awareness which shares the information a product exists with the customer and will affect the proportion of consumers aware of the product in the future, and therefore will affect future sales. This is acknowledged by Crawford & Benedetto (2014) noted that awareness is the first necessary step toward adoption when the products can sell to the customer in ignorance or in a hurry, with the awareness following that trial. The awareness becomes crucial in making consumers aware of the existence and characteristics of new products because Advertising expenditures have a dynamic effect in the sense that they raise consumer awareness of a product, increasing present and future sales (Barroso & Llobet, 2011).

2.3 THEORETICAL FRAMEWORK



According to Sekaran & Bougie (2010) states that the theoretical framework is the conceptual model in the research shows how one of the theories or makes logical sense of the relationship between the several factors that have been identified as important to the problem. There is a theoretical framework that has been developed based on the research problem and literature review that relate one to each other that have been identified and easier to understand by the researcher. The several factors that have been identified that influence each other is a plant growth stage, medical value, and commercialization.

III. RESEARCH METHODS

The research design that is suitable for this research is exploratory as the Saunders, et al., (2016) states that the exploratory study is the value of finding out the situation mean to ask the questions to explore what is happening and gain insight about the topic and understanding the problem. Nowadays the rare fruit's Malaysian still do not fully explore their potential medical value and potential commercial in the market. Therefore, exploratory research needs to explore

why this kind of rare fruit species to produce lowly in the market.

The methodologies choice suitable for this research is qualitative. Qualitative is the best method that researcher can be used to develop a strategy to conserve and increase the commercialization of these rare fruit species in Malaysia. This is because according to Saunders, et al., (2016) states that the qualitative method is used is the generate the non-numerical data and the data collection will the techniques such as interviews.

For the sampling, the researcher determines to use the non-probability technique such as judgment sampling to allow the researcher to get the necessary data from the selected respondents for this study. In addition, the non-probability sampling is the cause each member in the one population does not a chance to involve in the research which only the some of the population will be selected randomly as the sample for the research (Cooper & Schindler, 2014). In this research, the researcher chooses 10 respondents that consist of several groups has been selecting to be the respondent for this

researcher which is the farmer engaged in agricultural activities and agricultural-related departments Which are Farmer, pharmacist and Officer from Malaysian Agricultural Research and Development Institute (MARDI).

IV. DISCUSSION AND ANALYSIS

Process - Based on an interview with one of the respondents, MARDI has the centre to collect and store the genes (profile and information) rare fruits into the gene bank because this gene is important for stored those plant genes to the future generations. In addition, the respondent from MARDI has their own process of research to find out the potential the rare fruits in fresh or become a new product that can use for commercial at the market. Through the research that have been conducted by MARDI, they create the new rare fruit species with modifying the genetic plant which they called it as a hybrid.

Product - Based on the interview and data analysis show rare fruit species can be recognized by the people if its turn to the new product and commercial in the market. The rare fruits must through the process add value to change those rare fruits into the new shape, colour, taste and so on that can make those products has the potential to enter the market. The new product can give the benefit to the customer compared to the fresh fruits such as easy to eat, more delicious, etc. For example, Belimbing Buluh (*Averrhoa Bilimbi*), Asam Gelugor (*Garcinia Atroviridis*) and Nona fruit (*Annona Squamosa*) can become new product to attract the people such as juice, jam and so on which at the same time improve their health condition because they possess a medical value by consuming it.

Promotion - After analyzing the data, the program that has been provided should increase the awareness and knowledge of the product especially to the farmer. For example, MARDI provides many courses and program the public to increase their awareness and knowledge about the

rare fruits that make people take care so continuous of rare fruit in Malaysia. Most of the respondents from MARDI believe that program organized by MARDI can help the people to appreciate and learn about life of tree. Some of the program that has goals such as the nurture young people, especially school students in explored agricultural fields that will benefit the nation in the future.

V. CONCLUSION

Commercialization can make the people think out of the box such as how to make the rare fruits become popular and be part of the primary fruits. To make this happen, the research must be carried out to ensure that these plants can flourish in terms to overcome which weak plant growth stage, genetics, market and so on. On the other hand, to realize the commercialization for those rare fruits, the result from the research allowing farmers to plant rare fruit as a source of income.

5.0 RECOMMENDATION

The first strategy that can be used continues the research and development for the rare fruits. This is because the results from R&D can influence people to preserve the fruit R&D must be conducted to take care which part of the plant growth stage that must give more the attention to avoid failure grow of plant. The aim of the research is to overcome the weak plant growth stage for the continuous of rare fruits. The result from R&D is important to the farmer to know how to conduct a good planting that can give the higher percent to make sure plant can grow and health to produce fruits.

The second strategy is the collaboration between the farmer and industry to make sure those fruits have changed to become new product. The industry is the place that allows the rare fruits enter the market. Those industries can use cooperation process to know each other with sharing the information in order to achieve new goal. Besides, the commercialization can be

strength in industry with collaboration between farmers and entrepreneurs. This is because, for the farmer, they can plant rare fruits in the bigger scale to ensure the supply of rare fruit is not broken to the entrepreneurs that enable the production of products based on rare fruits.

The third strategy is collaboration between farmer and government to make sure the continuity of the rare fruits in Malaysia. The government can create a platform where every farmer can gain knowledge such as how to cultivate type of fruits including rare fruits. Besides, the result from the various research that has been done by government can be shared with the farmer through this platform. The younger generation can also present their idea that relates to agriculture to the people. At the same time, it can attract younger generation to join agriculture field in the future.

ACKNOWLEDGEMENT

The researchers feel thankful to Universiti Teknikal Malaysia.

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