



***CONSUMERS' PURCHASING INTENTION
TOWARDS ORGANIC RICE***

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**CONSUMERS' PURCHASING INTENTION
TOWARDS ORGANIC RICE**

By

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ABSTRACT

The purpose of this study is to determine the consumers' purchasing intention towards organic rice. The emphasis is more towards the relationship between socio-demographic and the factors that influence the consumers' purchasing intention towards organic rice. The totals of 400 respondents were chosen using simple random sampling method from selected Klang Valley area. Data that were collected from the survey were analysed using three types of method which were descriptive analysis, factor analysis and chi-square analysis. Factor analysis was conducted to identify the factors that influence consumers' purchasing intention towards organic rice. In this study, three (3) factors were identified which are attitude, subjective norms and perceived behaviour control. Chi-square was conducted to identify the relationship between socio-demographic and consumers' purchasing intention towards organic rice. The results showed that different age group and educational level have different purchasing intention towards organic rice. From the results, it can be recommended that the producers and marketers of organic rice can do a campaign to promote and sell their products to people that from 26-35 years old and from degree level of education which is during exhibitions and events organized by the university or college, especially events that involve healthy lifestyle such as World Health Day.

ABSTRAK

Tujuan kajian ini adalah menentukan niat pembelian pengguna terhadap beras organik. Penekanannya lebih kepada hubungan antara sosio-demografik dan faktor-faktor yang mempengaruhi niat pembelian pengguna terhadap beras organik. Sejumlah 400 responden dipilih dengan menggunakan kaedah persampelan rawak mudah di sekitar kawasan Lembah Klang. Data yang dikumpul dari kaji selidik dianalisis menggunakan tiga jenis kaedah iaitu analisis deskriptif, analisis faktor dan analisis chi-square. Analisis faktor telah dijalankan untuk mengenalpasti faktor-faktor yang mempengaruhi niat pembelian pengguna terhadap beras organik. Dalam kajian ini, tiga (3) faktor telah dikenal pasti iaitu sikap, norma subjektif dan kawalan kelakuan yang dilihat. Chi-square telah dijalankan untuk mengenal pasti hubungan antara niat pembelian sosio-demografi dan pengguna terhadap beras organik. Keputusan menunjukkan bahawa kumpulan umur dan pendidikan yang berbeza mempunyai niat pembelian yang berbeza terhadap beras organik. Berdasarkan keputusan ini, ia boleh disyorkan kepada pengeluar dan pemasar beras organik untuk melakukan kempen bagi mempromosikan dan menjual produk mereka kepada orang-orang yang berumur dari umur 26-35 tahun dan dari peringkat ijazah pendidikan semasa pameran dan acara yang dianjurkan oleh universiti atau kolej, terutamanya acara yang melibatkan gaya hidup sihat seperti Hari Kesihatan Sedunia.

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REPORT DECLARATION FORM

This project report entitled Consumers' Purchasing Intention towards Organic Rice is prepared by Nursaadah Binti Johari and submitted to the Faculty of Agriculture in fulfillment of the requirement of PPT4999 for the award of the degree of Bachelor of Science (Agribusiness) is based on my original works.

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CHAPTER 1

INTRODUCTION

1.0 Introduction

In this chapter discuss about the background of the study, the definition of terms that related to this study, problem statement and the objectives of conducting this study.

1.1 Background of Study

Rice is a staple food for almost half of the world's seven billion people and Asia is the largest community that consumed this rice which is more than 90 %, where rice is staple food for majority of the population (Mohanty, 2017) including community in Malaysia and rice was lately placed as the most important food crop to ascertain country's food security.

The growth rate of rice production in Malaysia has been increase about 1.47% annually from 2011 to 2015 (Harun, 2015). This means that people in Malaysia really consume a lot of rice daily since rice is the staple food of Malaysian people and rice is one of the main nutrient in our body which is carbohydrate and we need to consume a lot of carbohydrate compare to other nutrients such as protein and fat in order to get balance diet for our body and health. A carbohydrate is one of the important nutrients because it will give energy to out body to continue our daily life.

Table 1.1: Malaysia Milled Rice Domestic Consumption from Year 2011-2016

Market Year	Domestic consumption ('000 tonnes)	Growth rate
2011	2710	0.74 %
2012	2715	0.18 %
2013	2725	0.37 %
2014	2750	0.92 %
2015	2800	1.82 %
2016	2825	0.89 %

Source : Department of Agriculture (2016)

Malaysia also produces own rice because Malaysia has the arable land for paddy cultivation for rice production but Malaysia still needs to import rice from other countries that also produce rice such as Thailand and China for daily use because of the inadequate amount of rice for the Malaysia population since rice is staple food for Malaysian people.

Table 1.2: Main Information of Paddy and Rice, 2011 – 2015

ITEMS	2011	2012	2013	2014	2015
Paddy parcel area (ha) ²	292,500	292,500	289,882	289,882	290,937
Paddy planted area (ha)	687,940	684,545	671,679	679,239	730,016
Production of paddy ('000 tonnes)	2,579	2,599	2,604	2,849	3,322
Production value (RM '000)	1,933,889	1,949,537	1,952,741	2,136,419	2,491,838
Average yield of paddy (kg/ha)	3,748	3,797	3,876	4,194	4,551
Production of rice ('000 tonnes)	1,661	1,675	1,677	1,835	2,141
Total imports of rice ('000 tonnes)	1,031	1,006	887	921	800

Note : Paddy parcel is a piece of land used for paddy planting

Source : Department of Agriculture (2015)

The evolution of technology and science has exposed more information on technology to people in the world. This leads to the consumers' awareness about the healthy food and increase their concern about their health (Ibitoye et al., 2014). In year 2013, there is been a rumor that in rice that we eat is containing arsenic (one of chemical that is not good for our health), it is true that there is arsenic in rice but whether it is inorganic arsenic or organic arsenic and there is limits for the amount of arsenic in foods that is considered acceptable in order to protect public health and safety (Leigh, 2013).

Organic arsenic is a chemical element that occurs naturally and it is found in water, air, food and soil and it is not of major concern to our health. For example, organic arsenic can come from erosion of arsenic-containing rocks or volcanic eruptions. Vice versa, inorganic arsenic is a chemical element that occurs due to human activities, for example spraying crops pesticides that contain arsenic, and inorganic arsenic is dangerous to our health (Leigh, 2013).

Along with the increase in rice production is also the increase of demand for organic rice since people are more concern about their health (Rizal, 2016). Sun (2007) state that the information being passed around that organic food products are healthier and safer to consume than foods produced using the conventional methods of agricultural production make people consume the organic products such as organic rice, so the demand for organic rice will increase, but Malaysia does not produce much organic rice compared to the conventional rice. According to Department of Agriculture (2015), there is only 3 farms with total 118 hectares that produce organic rice and that are the farms that apply for myOrganic certificate.

Table 1.3: Number of Farms Accredited with myOrganic based on Commodities, 2015

Commodity	myOrganic Accreditation	
	Number of farms	Hectare
Fruits	36	321
Vegetables	44	125
Rice	3	118
Others including herbs and mushroom	68	1283
Total	151	1848

Source: Department of Agriculture (DOA), 2015

1.2 Definition of Organic Farming

Organic farming refer to the way of crop and livestock production are grown and raised which are not using pesticides, chemical fertilizers, genetically modified organisms and growth hormones. Organic production is a system designed to ensure that the agricultural productivity is at the optimum level and can develop enterprises that are sustainable and environmental friendly (Martin, 2009).

According to Canadian Organic Standards (2006), the general principles of organic farming include:

1. protect the environment by reduce soil degradation and erosion and also the pollution
2. ensure that long-term soil fertility can be maintained by optimizing biological activity conditions within the soil
3. use the renewable resources in agricultural systems

Organic farming is using crop rotations and cover crops system. Cover crops and composted manure are used to maintain soil organic matter and fertility. Crop rotation, better genetics and resistant varieties are used as preventative insect and disease control methods in the organic farming. Organic farming also use organically approved pesticides include 'natural' or other pest management products that has been stated in the Permitted Substances List (PSL) of the organic standards. For example, livestock must be fed 100 per cent with the organically grown grains, forages and protein supplements (Martin, 2009).

Organic farming is used the system of rice intensification (SRI) to achieve very high yields by changing the management of water, plants, soils and nutrients (Cornell University, 2015). Products of synthetic pesticides, synthetic fertilizers, synthetic food processing aids and ingredients, genetic engineering and animal cloning are prohibited in the organic standards (Martin, 2009).

1.3 System of Rice Intensification (SRI)

System of rice intensification which is known as SRI is a method to help the irrigated rice cultivation production is increase by changing the trees, soil, water and nutrients management. SRI training is producing a healthier and productive plant without disturbing the diversity of soil organisms. SRI methods were successfully applied to irrigated highland rice crops, and now they are being adapted into other crops such as wheat and sugar cane.

There is no need to buy new seeds or use high yield variations. Most local or traditional variations give a good response by producing higher yield and provide higher market prices through the application of SRI method. In SRI method, the application of chemical fertilizers and agrochemicals is allowed but there is no need to use it because the farmer can use organic matter such as animal manure or any composting plants which produce better yield at lower costs. The rice plants are better able to prevent damage that happen because of pests and diseases and this indirectly will reduce or prevent the uses of agrochemical protection if the SRI method is applied correctly to the rice cultivation.

The application of SRI method does not require high skill management but many workers are needed at the beginning of this method application, because they need to be careful care of planting and weeding process. SRI method reduces the labours usage and saves the use of labours compared to conventional rice cultivation methods. When the yields is high with reduction in the cost of production, that is mean the farmer get great profit.

1.4 Definition of Organic Rice

Organic rice is the rice is been produce without involves the use of toxic such as pesticide and insecticides. Organic rice is probably not free from arsenic but it contain less arsenic compare to non-organic rice and it is likely contain more organic arsenic than inorganic arsenic which it is not harmful to our health (Leigh, 2013).

The amount of arsenic in organic rice is no difference with conventional (non- organic) rice but organic rice production systems have more benefits than conventional rice production. For example, 40 types of different pesticides has been used in conventional rice production to control weeds and insects which are pesticides that contain toxic chemicals such as malathion and carbaryl which is not good for our health, in other hand, organic rice production process not used any chemical or synthetic fertilizer or any pesticide in any of its growth phases (Davis, 2005).

1.5 Benefits of Consuming Organic Rice

One of the organic rice is organic brown rice. Organic brown rice may have more health benefits than conventionally-grown brown rice like the others certified organic products that contain lower levels of agricultural chemicals that not good for our health. However, there is no solid evidence that organic foods are more nutritious than regular foods. It is not clearly yet whether organic foods are more nutritious than non-organic foods, but organic foods, such as organic brown rice, do contain less artificial colourings, flavourings, sweeteners, and preservatives, some of which are thought of as harmful to our health. Compared to organic food crops, conventionally-grown crops contain significantly more pesticide residues, which, depending on the type of pesticide and our level of exposure, may harm health (George, 2015).

1.6 Problem Statement

Organic food information provided by the government or food industry in Malaysia is still lacking. Therefore, it is difficult to find out about the size of organic rice market. It is worth noting that all marketing decisions are based on the knowledge and assumptions about consumers' behaviour towards a product or service. To understand the market for the organic rice industry, there will be a need to determine and understand potential attitude of Malaysian consumers and their decision to buy organic rice.

The people are aware about the organic vegetables but are they aware about the organic rice. People are seem to be concern about their health, so they start to consume more organic food such as organic vegetables, but they do not consume organic rice and this showed that price of the organic food is not become problem to the consumers to consume organic food, if price is not the main factor for the consumer to purchase, then what are the other factors that influence consumers purchasing intention?

1.7 Research Questions

1. What is the association between socio-demographic profile and consumers' purchasing intention towards organic rice?
2. What are the factors influence the consumers' purchasing intention towards organic rice?

1.8 Objectives of Study

1.8.1 General Objective

To study the consumers' purchasing intention towards organic rice.

1.8.2 Specific Objectives

1. To determine the factors influencing the consumers' purchasing intention towards organic rice.
2. To identify the association between socio-demographic profile and consumers' purchasing intention towards organic rice.

1.9 Significance of Study

Those participants in this survey will be indirectly informed and noticed about the organic rice and be more concern on their health and the food they consume every day and also help the consumers increase their awareness on the advantages of organic rice consumption because it does not use chemicals substances such as synthetic fertilizers in the production process, so it is good for our health. Last but not least, the data and information obtained from this sturdy will be essential for producers and marketers for current and future study such as help the rice producers to be more concern on rice that they produce and to be alert on consumers demand on organic rice so that they can produce more organic rice.

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