



THE DETERMINANTS OF CONSUMER PURCHASE INTENTION TOWARDS ORGANIC RICE IN SRI LANKA: WITH SPECIAL REFERENCE TO PANADURA CITY

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INTRODUCTION

Over the last decade, there has been a significant increase in interest in organic foods. New food technology, growing health awareness, busier lifestyle, and global environmental issues have triggered an awareness of organic foods in many developed countries. Consumers have started to question what they eat and the food production processes, as well as the question of whether food is safe (IFOAM, 2012). In that context, the industry of organic farming does not use pesticides and fertilizers. Though there is some level of confusion amongst consumers with organic food, at the same time there is growing consumer awareness of organic food around the world and especially in Western Europe (Aarset et al. 2004; Bonti-Ankomah & Yiridoe 2006). Barnes, Vergunst, and Topp (2009) suggest that changes in consumer knowledge have been significant enough to affect organic consumption decisions. Consumers who are more aware of organic products tend to accept paying a premium for them (Chang & Zepeda, 2005; Makatouni, 2002). In the context of Sri Lanka rice (*Oryza sativa* L.) is the staple food in the country and it was spread in 34 percent of the total cultivated area in Sri Lanka in two seasons making the total annual rice harvest about 870,000 ha. About 1.8 million farm families are engaged in paddy cultivation island-wide. Sri Lanka produces 2.4 million metric tons of rough rice annually and satisfies around 95 percent for the consumption in the country (Department of agriculture, 2017). Though organic rice consumption has a long history in Sri Lanka, the commercial purpose organic rice market is in infant stage. However, Sri Lankan consumers are starting to change their conceptions about rice as what they use for their meals. Especially, organic rice farming is a rapidly demanding area due to health-related consequences that are suffered among farming families in Sri Lanka. For example, most Sri Lankans who live in rice farming areas are facing illnesses like kidney disease because of using chemicals in their paddies. It also has caused water pollution in Sri Lanka (Wijesinghe & Nazreen, 2020). As previous researchers have found, health can be the main key point for consumers to consume organic foods (Chinnici et al., 2002; Zanolini & Naspetti, 2002; Padel & Foster, 2005; Truong et al., 2012). However, it is widely understood that organic farming processes cost more than conventional farming. One of the reasons is a greater loss of organic production to insects and disease if artificial pesticides and fertilizers are not used (Connor & Douglas 2001). Several studies (e.g. O'Donovan & McCarthy 2002; Roddy, Cowan & Hutchinson 1996; Shepherd, Magnusson, & Sjöden 2005; Tregear, Dent, & McGregor, 1994; Wijesinghe & Nazreen, 2020) indicate that price premiums of organic food tend to negatively affect the purchase. Organic products tend to be more expensive than non-organic products. If the organic food price was as low as the non-organic one, consumers would be willing to purchase more organic products. This indicates that many factors are influencing the purchase intention of organic rice among the consumers and this study focuses on the consumer purchase intention towards organic rice in Sri Lanka with special reference to the Panadura district. Hence, the research problem of this study is what the determinants of consumer purchase intention are towards organic rice among the consumers in Panadura city.



METHODOLOGY

This study adopted a quantitative approach based on survey research design. A structure questionnaire was administered by the researcher to collect data. The data collected from the 115 residents of the Panadura area using convenience sampling technique. The determinants of purchase intention were identified in a rigorous literature survey and Table 01 shows the variables and sources of literature. The structured questionnaire comprised of 3 items for health consciousness, 4 items for price, 3 items for sensory attributes and 3 items for consumer awareness and 3 items for purchase intention of organic rice.

Table 1: Sources of Literature Review

Variable	Source
Health Consciousness (HC)	Isabella et al. (2019)
Price (PR)	Pomsanam et al. (2014)
Sensory Attributes (SA)	Steptoe et al. (1995)
Consumer Awareness (CA)	Pomsanam et al (2014); Isabella et al. (2019)
Purchase Intention (PI)	Jitrawang & Krairit (2019); Curvelo, Alberto & Alfinito (2019)

The respondents were asked to rank their level of agreement on a 5 point Likert scale from “ 1 = Strongly Disagree to 5 = Strongly Agree” The dimensions of the study were identified via a rigorous literature review and Figure 1 shows the conceptual framework of the study.

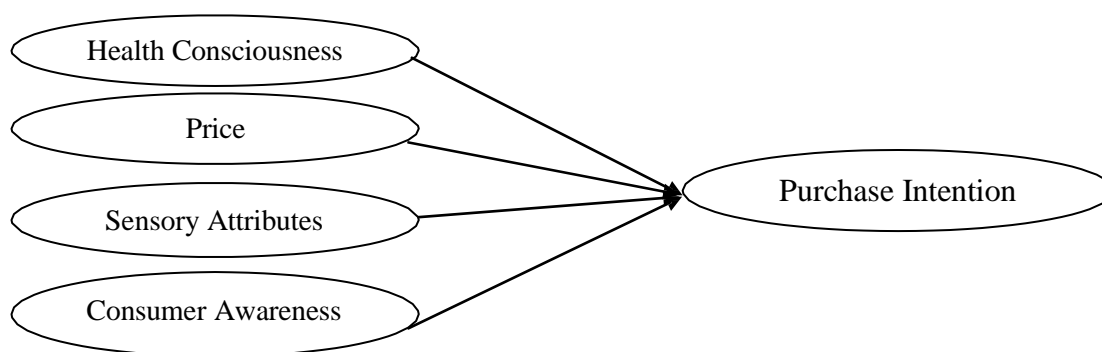


Figure 1: Conceptual Framework

Hypotheses

- ▶ H₁ – There is a significant impact of health consciousness on purchase intention of organic rice.
- ▶ H₂ – There is a significant impact of price on purchase intention of organic rice.
- ▶ H₃ – There is a significant impact of sensory attributes on purchase intention of organic rice.
- ▶ H₄ – There is a significant impact of Consumer awareness on purchase intention of organic rice



DATA ANALYSIS

Reliability of Measurement Properties

According to Sekeran (2004, p 203) reliability refers to the “extent to which it is without bias and hence ensures consistent measurement across time and across the various items in the instrument”. This can be tested statistically by using Cronbach’s alpha. Table 02 shows the results of the reliability analysis as follow

Table 2: Reliability

Variable	Cronbach Alpha	if item deleted	Deleted
Health Consciousness (HC)	0.707	0.707	HC1
Price (PR)	0.726	0.670	PR4
Sensory Attributes (SA)	0.774	0.624	SA1
Consumer Awareness (CA)	0.684	-	
Purchase Intention (PI)	0.685	-	

In order to improve the consistency and reliability of the instrument, several items have been removed from the instrument: HC1 from HC, PR4 from PR and SA1 from SA. HC, PR and SA ($\alpha > 0.7$). No items of CA (0.684) and PI (0.685) were removed since there are no improvements by removing the items and all those were established and validated items to measure the consumer awareness and purchase intention. Urshachi et al. (2013) has shown that the general acceptable rule is that α of 0.6 – 0.7 indicates an acceptable level of reliability.

Table 3 shows the mean, standard deviation and Pearson correlation coefficients of the variables as follows.

Table 3: Mean, Standard Deviation, Pearson Correlation

Variable	Mean	Sd.	r	Significance
Health	1.856	0.514	0.179	0.013
Price (PR)	3.272	0.740	-0.064	0.496
Sensory Attributes	2.069	0.474	0.231	0.056
Consumer	2.093	0.454	0.074	0.435
Purchase Intention	2.267	0.596		

According to Table 03, except PR, all other variables have a low level of agreement. Further, health consciousness = 0.179 (0.013 < 0.05), price = -0.064 (0.496, $P > 0.05$), sensory attributes = 0.231 (0.056, $P > 0.05$), and consumer awareness = 0.074 (0.435, $P > 0.05$).

Table 4: Multiple Linear Regression Analysis

Variable	Beta Coefficient	Significance	Supported/Not
Health Consciousness (HC)	0.235	0.013	Supported
Price (PR)	-0.163	0.077	Not Supported
Sensory Attributes (SA)	0.110	0.240	Not Supported
Consumer Awareness (0.080	0.384	Not Supported



Table 04 presents the Beta coefficient of health consciousness is 0.235 ($0.013 < 0.05$) whereas all dimensions other than health consciousness were price (-0.163 , $P > 0.05$), sensory attributes (-0.110 , $P > 0.05$), and consumer awareness (0.080 , $P > 0.05$). This indicates that only health consciousness is the significant determinant of the purchase intention of organic rice. More interestingly price has an insignificant negative relationship with the purchase intention of the organic rice. R square was 3.80 at $F = 0.309$ ($0.019 < 0.05$). This shows that the determinants explain 38 percent of the variation of consumer purchase intention of organic rice.

According to this study, only health consciousness has a significant influence on customer purchase intention of organic rice (e.g: Zagata, 2012; Fotopoulous & Krystallis, 2002). Further, price and purchase intention have a negative relationship as evident from previous studies (e.g: Bongani, 2016; Zagata, 2012). Moreover, there is no influence of sensory attributes on purchase intention (Cristina et al., 2019) whereas most other studies show sensory attributes affect purchase intention (e.g: Chang & Zepeda, 2005; Thogersen, Barcellos, Perin, & Zhou, 2015). Further, consumer awareness was not significant for organic foods especially among the non-regular customers due to lack of knowledge about organic food (Rushi & Khadiza, 2005). Most of the respondents of this research have intended to purchase organic rice rarely or when they need it. Very few respondents (2.6%) tend to purchase organic rice twice a month. There are no respondents who buy organic rice monthly. In Sri Lanka, organic rice prices are higher than conventional rice prices. Hence, when the price of organic rice increases, purchase intention tends to decrease. According to findings, most respondents were in the income range of 20,001-40,000 income level and 73 percent of respondents stated that they buy organic rice rarely and 13 percent of respondents buy when they need it. 2.6 percent of respondents purchase organic rice once every two months.

CONCLUSIONS/RECOMMENDATIONS

The focus of this study was to examine the determinants of purchase intention of the organic rice special reference with Panadura city and identified four determinants of purchase intention of organic rice from literature as Health Awareness, Price, Sensory attributes, and Consumer Awareness. This study concludes that health consciousness is the significant factor leading to purchase intention of the organic rice among the consumers in Panadura city. The other factors, price, sensory attributes, and consumer awareness, do not influence the purchase intention of organic rice. There are several implications of the study, including consumers' concern that health value is the most important. Consumers aim for good health as much as possible.

It reveals that consumers believe that organic rice is healthier as it contains high levels of nutrition. However, the negative impact of price indicates consumers could buy organic rice often, if the prices are lower. However, consumers haven't got good knowledge about organic rice or how to choose organic rice. If there had been a high income rate, consumers could buy organic rice often. Without consumer awareness, consumers couldn't identify real organic rice. They also don't think about how the organic rice tastes (Rushi & Khadiza, 2015). Thus, several recommendations can be made so that health-related parties and relevant public policymakers relating to health, agriculture and consumption should implement appropriate strategies to promote awareness about organic rice consumption among the rice consumers in Sri Lanka. There should be high motivation to create awareness and change attitudes about the value of organic rice among the consumers. Further, there should be mechanisms for promoting organic rice production and selling it. This will lead to a decrease in



the market price of organic rice (Wijesinghe & Nazreen, 2020). The overall result reveals that an opportunity should be created for developing organic concepts focusing on more consumers in Sri Lanka. Meanwhile, this study is not free from limitations as this study only identified four determinants of purchase intention of organic rice through literature and followed a quantitative approach. Further, purchase intention is not the actual purchase behaviour and actual behaviour can be different from the intended behaviour. Hence, respondents' behaviour, body language, feelings were not considered. Further, this study was limited to Panadura city. This means further studies can be conducted by identifying the other factors such as availability, the convenience of purchase, cultural factors. Further, this study can be extended to a wider geographic area as well. The study found that the majority of the consumers (96%) agreed to pay an additional payment on organic rice at least in the study area which were highly vulnerable to chronic diseases due to chemical usage in agriculture. However, 4% of consumers refused to pay any additional payment for organic rice even though it is a healthy and environmentally friendly product. Thus, policy makers can impose price discrimination strategy for different income categories and local organic rice producers could be encouraged for further production.

In conclusion, the outcome of this study can be used as a tool for revising the existing pricing policies on organic rice in Sri Lanka. Further, policy makers can identify the range of price increase for organic rice without damaging the existing demand and it is a timely need to introduce new marketing strategies to expand the market segments in organic rice in Sri Lanka.

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