

A Decision Support Framework for Tourist Perception and Purchasing Intention on Organic Drinks for Tourism Marketing

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Abstract

Due to the health consciousness stream, organic products are originated in the food and beverage industry and promoted the growth of market volume, whose market share is rapidly expanding every year from tourists' health awareness. As some influential factors of the tourist perception (TP) of the organic drink industry are unclear, many entrepreneurs need to find some methodologies to be proactive in this market segment. The objectives of this research are (1) to investigate the factors that influence TP and purchasing intention (PI) on organic drinks and (2) to construct a decision support framework for TP and PI on organic drinks. The results show that intrinsic factors, extrinsic factors, and TP have a direct influence on PI. Furthermore, extrinsic factors were seen to have a strong influence on TP, whereas, intrinsic factors had a positive influence as well. The intrinsic factors, extrinsic factors, and TP positively affect PI. After doing a sensitivity analysis, the results indicated that changing taste, advertisements, and product quality all affect TP and PI.

Keywords: *Organic drinks, Decision support framework, Tourist perception, Purchasing intention*

I. Introduction

Organic drinks is a new concept for nutraceuticals and it is suggested that these drinks enhance beauty from within. These organic drinks contain specific combinations of powerful and concentrated organic plant extracts from organic fruits and vegetables like broccoli, pomegranate, red grape, and others, super-foods, and nutrients to improve the condition and appearance of one's skin including anti-aging properties, natural detoxification, providing radiance, and vitality to the skin.

The wider growth of consumer awareness creates the more demand for organic drinks which major

factors that boost the expanded organic drinks industry are rising number of health-conscious consumers coupled with increasing income. The market is driven by preventive skincare where the target groups are followed according to their lifestyles, such as age, gender, and demographics. Moreover, this product is favorable among foreigners becoming a great opportunity to expand its market shares. Due to the growth of travel and tourism around the world, tourists spend a lot of money on food and beverages such as tasting many local foods, buying for souvenirs or personal uses, etc. Since 2015-2017, the food and beverage segment has an average growth rate at

5.74% (MGR online, 2017). Consequently, the high concern of health consciousness, demand for organic drinks in the market grows annually, and new opportunities for entrepreneurs present new challenges for marketing strategies. Entrepreneurs not only have to focus on developing value-added products but have to concentrate on new marketing strategies in order to understand the factors that affect tourist perception, which leads to purchasing intention.

In order to receive a competitive advantage, entrepreneurs have to pinpoint customer-value marketing strategies to achieve customer satisfaction. However, there seems a significant research gap exists on a decision support framework (DSF) for tourist perception and purchasing intention on organic drinks that entrepreneurs can study. Thus, this research investigates some of the factors that dominate tourist perception and purchasing intention based on intrinsic and extrinsic factors.

The research concentrates on 2 objectives; (1) to investigate the factors that influence tourist perception and purchasing intention on organic drinks, and (2) to construct a decision support framework for tourist perception and purchasing intention on organic drinks. Accordingly, this research's results can be a guideline to entrepreneurs to improve their marketing strategies in order to achieve a greater marketing volume target for organic drinks. The contribution of this research is in developing a decision support framework of tourist perception and purchasing intention on organic drinks to help entrepreneurs realize the influential factors when they want to increase their market share.

II. Literature Review

Intrinsic factors and extrinsic factors

Food and beverage choices are a complex process that is influenced by both intrinsic and extrinsic product attributes (Köster, 2009). Intrinsic factors, representing less tangible and greater emotional

needs, are the inner motivations or drives of the consumers, while the extrinsic factors are marketer generated (Bagga and Bhatt, 2013). Corchs et al. (2016) suggested that intrinsic factors place greater importance on the consumer attitude when assessing a product. Intrinsic factors refer to ingredients, sensory characteristics, and nutritional composition (Oliveira et al., 2017). Similarly Wang et al. (2019) expressed the notion that the intrinsic factors of food are the food's color, aroma, and texture. Furthermore, intrinsic factors have been referred to as product characteristics, information about health, product benefits, and flavor (Jaramillo, 2016).

Extrinsic factors refer to some of the attributes that can be modified without changing the main product characteristics; that is price, brand, packaging, and health claims (Olson and Jacoby, 1972). Moreover, the study of Ares et al. (2010) indicated that the type of products, brand, price, and health claims are factors that affect consumers' choices of functional food. The four key extrinsic factors that are the drivers of liking food are the perceived satiety, brand and labeling, price, and the emotional impact on decision-making (Li et al., 2015).

Therefore, in this research, the intrinsic factors are included benefit awareness of organic drinks, taste, and attitude. The extrinsic factors compose of price, type of products, advertisements, and brand awareness.

Tourist perception

Robbins and Coulter (2005) indicates that perception is a process giving meaning to the environment by organizing and interpreting one's sensory impressions. However, tourist perception is depended on their former experiences. For example, some tourists may perceive the foods and beverages served by the hotel as tasty, quality, and cheap while some others may perceive them as tasteless (more spicy, oily, salty, etc.), of low quality, and expensive based on their attitudes and perceptions of what they have seen, consumed, and experienced (Gnanapala, 2015).

Normally, the factors of perception compose of beliefs and attitudes, information concerning health effects (Jonas and Beckmann, 1998; Nicolay, 2003), the taste of products, and the quality of the products. The beliefs and attitudes referred to tourist attitudes towards health have been identified as central in determining the acceptance of functional foods (Ares et al., 2008a) and the taste of organic drinks for health benefits, price, product quality, and nutrition are crucial factors of tourist perception.

Consequently, in this research tourist perception considers the factors of product quality, health consciousness, and information about health effects.

Purchasing intention

Purchasing intention is one's plans to buy a product through the process of recognizing the product he/she is purchasing; finding information about the product, evaluating it, and purchasing and providing feedback. Moreover, purchasing intention is defined as a probability that lies in the hands of the one, who intends to purchase a particular product (Grewal et al., 1998) depending largely on the product's value and recommendations that other tourists have shared, for example on social media (Schiffman and Kanuk, 2009). In Kotler's research (2003), there are two factors influencing purchase intention: others' attitudes which include others' preferences for the selves and following others' expectations; and situational factors which compose of personal income, predicted price, and predicted profits. . On the other hand, Hansen (2005) states that quality and attitude have a direct significant effect on tourist purchasing intention.

In this research, purchasing intention is defined in terms of recommendation from reference groups, destination trust, and predicted profit.

III. Research Methodology

Phase I: Literature review

In the first phase, many kinds of research on intrinsic factors and extrinsic factors were studied in order to identify the appropriate factors that affect tourist perception and purchasing intention on organic drinks.

Phase II: Scenario development

In this phase, there are 3 steps: the construction of the questionnaires confirmed by experts, a collection of quantitative data by market surveys from 444 samples, and then analysis of the data using a statistical analysis program – the structural equation modeling (SEM). The research framework explores the effect of the intrinsic factors and the extrinsic factors on tourist perception and purchasing intention. Meanwhile, the relevant demographics are gender, age, education, and incomes.

1. Constructing questionnaires and pre-test the measure

The quantitative survey research is conducted through questionnaires employing Likert scales (5 levels: 1=strongly disagree and 5=strongly agree) developed by adapting the possible validated measures or transforming the definitions of constructs.

The pre-test is measured using a tryout group of 60 members which comes from different tourist attractions around Bangkok with similar sample characteristics. A pre-test questionnaire is conducted to examine the content validity. The experts from industry and academic fields are invited to validate with the index of consistency (IOC) technique. Next, the reliability of the factors is tested, showing a high Cronbach's Alpha (α) for tourist purchasing intention (.921), tourist perception (.963), intrinsic factors (.937) and extrinsic factors (.917). Then, a field study is initiated to collect data from 400 samples from several tourist attractions around Thailand with plus 10% for error. Totally, 444 samples are 100% collected (The SEM analysis requires only 260 samples, 13 latent variables x 20 multiply = 260 samples).

2. Collecting quantitative data via marketing surveys

The sample was a group of tourists visiting Thailand around January-June 2019. There are three sections in the questionnaire as following. Section 1 is general information of the respondent which includes gender, age, education, and incomes. Section 2 and 3, the respondent has to answer what factors are likely to influence the tourist perception on organic drinks and purchasing intention. Reliability is tested using the Cronbach alpha coefficient.

3. Analyze the data by SEM presented in section 4.
4. Create a DSF employing computer programming software presented in section 4.
5. Verify the computer software model by testing with sensitivity analysis presented in section 4.

The hypotheses are as follows:

- H1: Intrinsic factors have positive effects on tourist perception.
H2: Extrinsic factors have positive effects on tourist perception.
H3: Intrinsic factors have positive effects on purchasing intention.
H4: Extrinsic factors have positive effects on purchasing intention.
H5: Tourist perception has positive effects on purchasing intention.

The conceptual framework is shown in Figure 1

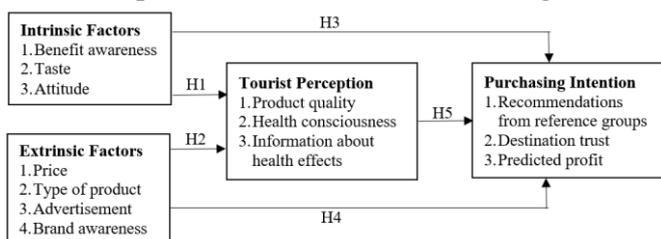


Fig. 1. The conceptual framework

Phase III: Factors consideration

This phase expresses the influential factors of tourist perception and purchasing intention on organic drinks. This concludes which factors affect tourist perception and purchasing intention and presents an addition to the sensitivity analysis. This is crucial to an entrepreneur to apply the influential factors to their product strategy.

An Empirical Study

After reviewing the literature, some interesting variables for the research were found in phase I. They are benefit awareness, taste, attitude, price, type of products, advertisement, brand awareness, product quality, health consciousness, information about health effects, recommendations from reference groups, destination trust, and predicted profit. Next, the construction of the questionnaire from these variables with insights from an index of consistency experts, performing a market survey, analyzing the data using the SEM analysis, and proposing a decision support framework for tourist perception and purchasing intention on organic drinks took place in the phase II – the scenario development.

IV. Results

Sample characteristics

Most of the respondents were female (64.86%) aged between 31-40 years (71.17%) were graduates (59.01%) and had an income of US Dollar 4,000-6,000 (52.70%) per month.

Hypothesis testing

The SEM was used to analyze the data. The criteria for the overall model fit of the SEM were composed of relative chi-square ($\chi^2/\text{degree of freedom}$), comparative fit index (CFI), goodness of fit index (GFI), adjusted goodness of fit index (AGFI), root mean squared residuals (RMR), and root mean square error (RMSEA) (Grunert *et al.*, 2010). The results of the model fit were: $\chi^2/\text{df} = 1.289$ (criteria < 2.00), CFI = 0.998 (criteria > 0.90), GFI = 0.985 (criteria > 0.90), AGFI = 0.962 (criteria > 0.90), RMR = 0.008 (criteria < 0.05), and RMSEA = 0.026 (criteria < 0.05).

The 5 hypotheses were tested at a significance level of 0.05. The results show that all 5 hypotheses were accepted. The intrinsic factors were seen to have little effect on tourist perception (TP), while extrinsic factors strongly and positively influenced TP. Considering purchasing intention (PI), the results confirmed that intrinsic factors have a strong effect on PI, and the extrinsic factors also have a positive effect on PI, and TP positively affects PI as well. Furthermore, the R^2 of all the regression model analyses ranged from 0.70 to 0.88, indicating a strong explanatory

power of the model. The intrinsic factors' construct accounted for 69% of the total variance in TP ($R^2 = 0.69$) and the extrinsic factors' construct accounted for 88% of the total variance in TP ($R^2 = 0.88$). The intrinsic factors and extrinsic factors, then, constructed a forecasting power of 80% or the total variance in TP ($R^2 = 0.80$). Furthermore, the intrinsic factors' construct accounted for 83% of the total variance in PI ($R^2 = 0.83$) and the extrinsic factors' construct accounted for 72% of the total variance in PI ($R^2 = 0.72$). The TP constructs account for 81% of the total variance in PI ($R^2 = 0.81$). Finally, the intrinsic factors, extrinsic factors, and TP constructed a forecasting power of 87% or the total variance in PI ($R^2 = 0.87$).

Therefore, Figure 2 expresses the decision support framework for tourist perception and purchasing intention on organic drinks and is composed of the intrinsic factors and extrinsic factors. The intrinsic factors were seen to have a direct effect on TP and PI at a significance level of 0.05. Another latent variable, the extrinsic factors, had a direct effect on TP with a highly-strong relationship, and PI was at a significance level of 0.05 as well. Finally, TP also had a direct effect on PI.

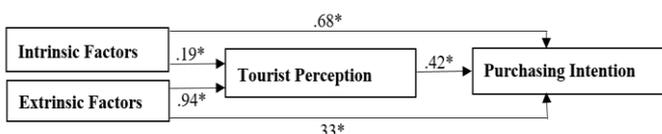


Fig.2. The decision support framework of tourist perception and purchasing intention on organic drinks

H1 and H3: The intrinsic factors had a minor effect on TP (.19) and a much greater effect on PI (.68) at a significant level of 0.05. Thus, these two hypotheses were supported. The SEM indicated that the intrinsic factors have a direct effect on TP and PI, which implies that the intrinsic factors act as psychological stimuli on TP and PI. Therefore, entrepreneurs that aim to propose new products for tourists have to concentrate on TP and PI (especially on PI due to its highest coefficient among the three variables). Organic drinks is an important segment of the functional beverage segment that deals with organic ingredients,

natural nutrition, taste, physical color, and so on. Tourists that are interested in their health always think about the benefits together with health consciousness, the quality of drinks, and the information about health effects, and they also look for good-tasting drinks as well. Furthermore, recommendations from reference groups, destination trust, together with predicted profit are aroused to help them with their purchasing decisions, along with their attitudes toward drinks. H2 and H4: Extrinsic factors had the strongest effect on TP (.94) and a positive effect on PI (.33) at the significance level of 0.05. Thus, these two hypotheses were supported. The SEM indicated that the extrinsic factors have a direct effect on TP and PI, which implies that extrinsic factors can be used as marketing stimuli for TP and PI. Therefore, entrepreneurs have to be aware of these two variables, especially TP, because the greatest effect was shown there. Price, type of products, advertisement, and brand awareness are important factors that tourists are concerned with and as well as trust in the product quality, concern about health consciousness, and perceiving information about health effect, while price and brand awareness can create predicted profit.

H5: TP had a positive effect on PI (.42) at a significance level of 0.05. Thus, this hypothesis was supported. The SEM indicated that TP has a direct effect on PI, which implies that TP leads the tourist to make purchasing decisions. Therefore, entrepreneurs have to pay attention to TP in order to encourage the tourist to realize product perception and create well-prepared information to enhance tourist decision makings to purchase organic drinks. Improving product quality: good taste, beautiful color, and aroma; campaigning about health consciousness and organic instance, providing necessary information about organic drinks to tourists especially benefits of organic fruit and vegetable extracts, and well-designed container and packaging are crucial. Moreover, recommendations from reference groups and destination trust can be done to increase market sales volume.

Sensitivity analysis

After doing the sensitivity analysis to study the model robustness, the results showed that changing taste, increasing or decreasing advertisements, and changing product quality have an effect on tourist perception and purchasing intention. For example, when the taste of a product is changed, the tourist has to try it and decide whether he or she likes it or not. Therefore, entrepreneurs have to cautiously conduct market surveys and market testing.

Factor consideration

In phase III factor consideration, the research result shows that both intrinsic factors and extrinsic factors are influential tourist perception, and purchasing intention at significance level 0.05 together with tourist perception has influence purchasing intention. After doing sensitivity analysis, the result confirms that the model is robust and some factors (taste, advertisement, and product quality) are more crucial than others. Then, entrepreneurs have to pay more attention to them when preparing marketing strategies.

V. Conclusions

The health consciousness stream is boosted up a lot of organic products into the food and beverage industry and promoted the rapid growth of market volume. At this present, business is lead to social responsibility and promoted a sustainable marketing strategy to take a competitive advantage.

The objectives of this research were to investigate the factors that influence tourist perception and purchasing intention on organic drinks and to construct a decision support framework for tourist perception and purchasing intention on organic drinks. The value of this research as finding the dominant variables of the tourist perception and purchasing intention in a decision support framework for organic drinks. Intrinsic factors were seen to have a positive effect on tourist perception and their purchasing intention. Normally, tourists perceive product quality and information from the media through advertisements or recommendations from reference groups composed of an individual's

attitudes, preference for a particular taste, and benefit awareness of drinks (Wang et al., 2019). Meanwhile, extrinsic factors were seen to have a strong positive effect on tourist perception and purchasing intention as well. Price and brand awareness are easily perceived and compared with product quality and affect predicted profit (Ares et al., 2010; Wang et al., 2019). The sensitivity analysis indicated that changing the taste of the product, increasing or decreasing of advertisements, and unstandardized product quality affect tourist perception and purchasing intention, both negatively and positively. Thus, entrepreneurs have to cautiously consider when creating marketing strategies for their new product.

The contribution of the present research is in developing a decision support framework for tourist perception and purchasing intention on organic drinks to help entrepreneurs understand the influential factors when they want to increase their market share.

VI. References

- [1] Ares G, Giménez A, Gámbaro A (2008a) Understanding tourists' perception of conventional and functional yogurts using hard laddering and word association. *Food Quality and Preference* 19:636–643.
- [2] Ares G, Giménez A, Deliza R (2010) Influence of three non-sensory factors on tourist choice of functional yogurts over regular ones. *Food Quality and Preference* 21:361–367.
- [3] Bagga T, Bhatt M (2013) A Study of Intrinsic and Extrinsic Factors Influencing Tourist Buying Behaviour Online. *Asia-Pacific Journal of Management Research and Innovation* 9:77–90.
- [4] Corchs S, Ciocca G, Bricolo E, Gasparini F (2016) Predicting complexity perception of real world images. *PloS one* 11(6): 1–22.
- [5] Gnanapala WKAC (2015) Tourists Perception and Satisfaction: Implications for Destination Management. *American Journal of Marketing Research* 1(1): 7-19.
- [6] Grewal D, Monroe KB, Krishnan R (1998) The effects of price-comparison advertising on buyers' perceptions of acquisition value,

- transaction value, and behavioral intentions. *Journal of Marketing* 62: 46–59.
- [7] Grunert KG, Wills JM, Fernández-Celemín L (2010) Nutrition knowledge, and use and understanding of nutrition information on food labels among tourists in the UK. *Appetite* 55:177-189.
- [8] Hansen T (2005) Perspectives on tourist decision making: an integrated approach. *Journal of Tourist Behaviour* 4(6): 420-437.
- [9] Jaramillo J (2016) Preferencias del consumidor y disposición a pagar por el consumo de tortilla de maíz orgánico. *Estudios sociales* 47: 145–161.
- [10] Jonas MS, Beckmann SC (1998) Functional foods: Tourist perceptions in Denmark and England. MAPP Working Paper No. 55. The Aarhus School of Business. Aarhus, Denmark: MAPP.
- [11] Kotler P (2003) *Marketing management* (11th ed.). New Jersey: Prentice Hall.
- [12] Köster EP (2009) Diversity in the determinants of food choice: A psychological perspective. *Food Quality and Preference* 20: 70–82.
- [13] Li XE, Jervis SM, Drake MA (2015) Examining extrinsic factors that influence product acceptance: A review. *Journal of Food Science* 80: 901-909.
- [14] MGR online (2017) Thai food for tourism. Available on 10 May 2017. <https://mgonline.com/business/detail/9600000047488>
- [15] Nicolay C (2003) Language is key to marketing digestive health products. *Functional Foods and Nutraceuticals* 6: 20–22.
- [16] Oliveira D, Ares G, Deliza R (2017) Influence of intrinsic and extrinsic factors on tourist liking and wellbeing perception of two regular and probiotic milk products. *Journal of Sensory Studies* 32.
- [17] Olson JC, Jacoby J (1972) Cue utilization in the quality perception process. In *Proceedings of the third annual conference of the association for tourist research*. pp. 167–179. Chicago, IL: Association for Tourist Research.
- [18] Robbins SP, Coulter M (2005) *Management*. New Delhi: Prentice Hall.
- [19] Schiffman L, Kanuk L (2009) *Tourist behaviour* (10th ed). Prentice Hall.
- [20] Wang QJ, Mielby LA, Junge JY, Bertelsen AS, Kidmose U, Spence C, Byrne DV (2019) The Role of Intrinsic and Extrinsic Sensory Factors in Sweetness Perception of Food and Beverages: A Review. *Foods* 8: 211-238.