

## UNDERSTANDING CONSUMER BEHAVIOR AND CUSTOMER SEGMENTATION OF HOME-MADE AND READY-TO-DRINK PRODUCTS

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*Abstract.* The economy growth especially in the food and beverage industry had triggered the emergence of new business in this sector especially some various type of home-made and ready-to-drink products, produced by the small and medium enterprises. This study identified factors that influence the purchase intention towards the products as well as the identification of customer segmentation and characteristic. Participants completed a set of semi-structured interview and a Theory of Planned Behavior-based questionnaire. Most all of the participants (62,7%) buy this product because of curiosity and statistically demonstrated the factors of attitude (product appearance and packaging practicality) significantly affecting purchase intention as well as perceived behavioral control (functional or health benefit) that also become the antecedent factor. Other variables such as age and occupation influenced the purchase frequency, while income only affect personal habit such as social media use. Segmentation framework using K-means clustering resulting four groups with cluster two profiled as private company employee, appeared as the potential market with its own preference on purchase intention towards a home-made and ready-to-drink product. Focusing on attracting the inquisitiveness about the products using the prominent attributes potentially reinforce the purchase intention of this kind of product.

*Keyword :* consumer behavior; purchase intention; customer segmentation

### INTRODUCTION

Food and beverage industry was recognized as a promising and low barrier market to entry business. Many entrepreneur start it business in this sector. Nevertheless, it is not many of them survive with the market. Therefore, further study intent to evaluate the character of the customer behavior and their purchase intention within this market, especially for home-made ready-to-drink (RTD) products. The objection of this study was to understand the antecedent factors that influence purchase intention towards a home-made ready-to-drink (RTD) product and make a segmentation framework of the customers alongside each characteristic such as decision making process, response to the marketing mix of the product, and other personalities regarding the purchase preference. The customer diverse segments have a potential different benefit for companies but it have could vary depending on the personal demands but still valuable for the company consideration at selecting customer.

For this purpose, this study will use theory of planned behavior (TPB) as approach. TPB relies not on the revealed preferences to infer the underlying decision process but instead on direct assesment of its theoretical constructs. This theory emphasizes intention as a precursor in consumer behavior and is itself a function of attitude toward behavioral, subjective norm, and belief control. In other words, instead of relying on the overall evaluation or utility of a product or service, this theory focuses on the specific consumer behavior of interest (Ajzen, 2015).

Using those teoretical perspective of consumer behavior, a socioecological influences on a home-made RTD product would be potentially captured. By promoting development of an empirical instrument for further understanding about the customers segmentation, the correlation between demography factors such as occupation, income, and age would describe more about the variety of the customer regarding the consumption of home-made RTD products. The result would deliver a conceivable implementation of the findings about the factors that can affect someone having an intention to purchase the product and deciding to purchase as the end of behavioral outcome. The other target of this research as well as correcting the target market and arranging best strategies to approach the customer of this product. Accordingly, this paper will outline as following. The next session is literature review which consist some basic theoritical foundation to support some arguments and reasonable process of this study. Next, following with methodology of the study, and the last is research finding and conclusion.

### LITERATURE REVIEW

#### Consumer Behavior and Decision Stages

Consumer behavior itself generally related to individual activity consisting self-need identification, information exploration, evaluation, purchasing, consuming, and post purchase evaluation and those activities are influenced by many factors (Tjiptono, 2015). Consumer decision making consist of three. Firstly, it is input stage that includes two factors such as the firm's marketing

effort (product, promotion, price, place) and sociocultural influences (family, friends, neighbors, social class, and cultural and subcultural entities). Secondly, the process stage that focuses on how consumers make decisions. The psychological factors (motivation, perception, learning, personality, and attitudes) affect how the external inputs from the input stage influence the consumer's recognition of a need, pre-purchase search for information, and evaluation of alternatives. Lastly, the output stage consists of two post decision alternatives which are purchase behavior and post-purchase evaluation (Schiffman, 2015).

*Food choice and quality perception also has been a long tradition of research. However, the dynamics of interest for food choice have certainly keep being observed as it implies on willingness to pay or purchase the food within the industry as well as changing lifestyles resulting demands for convenience. Thus, theoretical framework of consumer behavior regarding the decision making process on food choice used in this paper to give an overview of research carried out on consumers' food choice and perception.*

### **Previous Study of Food Consumer Behavior**

*In many studies understanding consumer behavior towards food choice and quality perception show some interesting fact. According to Brunso (2002), food quality divided into four different types : (1) product oriented quality; (2) Process-oriented quality; (3) User-oriented quality, and (4) Quality control. Food quality has been regarded as multidimensional and from the consumer's point of view, the quality (both expected and experienced) has four major dimensions which are taste and appearance, health, convenience, and process (Brunso, 2002). This paper used this previous understanding focused on which food quality mostly influenced the purchase intention especially for a home-made RTD product.*

### **Theory of Planned Behavior**

Theory of planned behavior (TPB) is described as a major framework for understanding, predicting, and changing human social behavior. Different with other approach or method to learn about consumer behavior, TPB relies not on revealed preferences to infer the underlying decision process but instead on direct assesement of its theoretical constructs. This theory emphasizes intention as a precursor in consumer behavior and is itself a function of attitude toward behavioral, subjective norm, and belief control. In other words, instead of relying on the overall evaluation or utility of a product or service, this theory focuses on the specific consumer behavior of interest (Ajzen, 2015). The breakdown of attitude, subjective norm, and belief control as the function of purchase intention would results a hypotheses development whether the properties of the product itself influence the purchase intention (attitude), any recommendation or suggestion from certain environment forming norm the encourage whether to purchase or not (subjective norm), nor any personal limitation factors that become the barriers for purchase decision (belief control).

## **METHODOLOGY**

This study is a mix method study, we use explorative study as an initial stage (qualitative) and confirmatory study (quantitative) as validation of our findings. Explorative research was aimed to collect insights and some variables that needed to be validated in the confirmatory research. It consisted of literature study and semi structured interview. Previously, an observation precede the selecton of respondents such as which campus reported has a good selling record of a home-made RTD product and which has least selling record. Then, the semi structured interview used 20 respondents divided into four groups (each group contain five respondents) which were college students from the best-selling group, college students from least selling group, employees, and entrepreneurs. The process of collecting insight from interview were such as questioning quality dimension of food product before deciding to purchase, reason to buy, input process about the product acquired by respondents (marketing mix influence, socioculture aspect, or communication source), and some personal belief encouraging intention to purchase the product. In result of the exploration of factors trough interviews, it produce a common reason including :

- Place, brand, socioculture, and recommendation from closest colleague are a common input for pre-purchase stage.
- Packaging design (product appearance), information on packaging/quality assurance (local authority certified and product shelf life information), and price are frequent answers for evaluation of during-purchase stage
- Perceived value for the money and evaluation on taste become the post-purchase stage.

The use of TPB model on this research explaining the hypotheses development by its three main precursor of a certain behavior intention (attitude, subjective norm, and perceived behavioral control). Previous study by Zoellner (2012) explored the theory of planned behavior to explain sugar-sweetened beverage consumption. The exploration used questionnaires instrument to assess the component of attitude, subjective norms, and perceived behavioral control. Given the demonstrated usefulness of the TPB in understanding the assesment of which prominent reason in sugar-sweetened beverage consumption, the construct then adapted in this research mixed with the previous common answer from the interview process. The questionnaire instrument is employed with ordinal scale for each indicator of the variables. The elaboration of hypotheses development are:

Attitude variable. It is an overall manifestation indicators including the attribute of product such as product appearance, practicality, and product quality (taste, quality assurance, and shelf life) as resulted from the interview common answer. These

specific attributes influence the three component of attitude such as affective (feel), cognitive (beliefs), and behavior (do), scheming product appearance (X1), packaging practicality (X2), and product quality (X3) as the indicator of attitude variable. Subjective norm variable. Subjective norm determined by the normative beliefs from environment including friends, family, or social media influencer which formed a subjective evaluation and perception about the product. Other communication source such as promotion strategy also generate personal consideration about the product as well as generating the brand awareness. Thus, brand and promotion strategy (X4) becomes the indicator of subjective norm variable. Perceived behavioral control variable. It is about how much a person has a control over behavior and how confident a person feels about being able to perform or not to perform the behavior. Based on the interview result, location (X5), functional or health benefit (X6) and product price (X7) become the factors that prohibit or encourage personal decision to purchase a home-made RTD. Thus, those factors become the indicator of perceived behavioral control variable. The hypohtheses scheme is shown in the Figure 1.

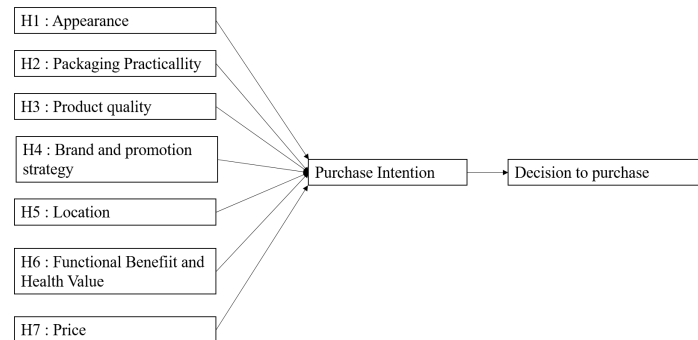


Figure 1. Hypotheses Scheme

The findings in the first session then examined and the data then analyzed with regression analysis as well as cross tabulation analysis for further understanding about the variables. In addition, to determine customer segmentation K-means cluster method is also employed.

## FINDINGS AND ARGUMENT

### *Consumer behavior intention of home-made RTD products*

The statistic result showed that only product appearance, packaging practicality, and functional or health benefit had a significant effect on purchase intention ( $t$  value >  $t$  table). Appearance (packaging design, visual design, color, and shape) had a partial determination about 12.6% towards purchase intention, while packaging practicality (easiness to consume) and functional or health benefit had a partial determination about 15.4% and 7,9% respectively. Accordingly, those variables influence the purchase intention about 43% simultaneously while the other 57% was determined by other variables not being observed in this research. The result expand the understanding about the food quality model as previously explored in the research of consumers' food choice and quality perception by Brunso (2012). The model showed taste, health, convenience, processing, and perceived cost as the expected quality evaluated before purchase. However, this research resulting product quality (taste, quality assurance/certification, and shelf life) does not emerge as a significant factors in purchase intention as well as price factors, respectively showed only 0.6% and 0.3% based on the statistic partial determination test. The reasoning of this finding is supported by the questionnaire result about the main reason of purchasing a home-made RTD product which is curiosity. A total of 62,7% of respondent chose the reason to buy is because curiosity, instead of addicted/habit (28%), following the trend (7%), loyalty (3.4%), nor represent a status symbol (none). Thus, product appearance, packaging practicality and health benefit appear as the promminent factor of purchase intention towards this kind of products.

### *Product Attributes and Purchase Intention Correlation*

Based on the cross tabulation analysis, there were only three aspects which showing a significant relationship between two variables, while other aspect is not significantly correlate each other. The standard of this test is if the significance value is lower than 0.05, the variables have a correlation. Thus, the results demonstrate that age and occupation significantly influencing the purchase frequency, while income rate influencing the use of social media (Table 1). The cross tabulation exhibits the respondents with age between 24-26 years old have the highest purchase frequeny on a home-made RTD product and private company employee also revealed have the highest purchase frequency, followed by the college students rather than other occupation such as entrepreneur, governmnet employe, or others. The income variables only significantly affecting the individual habit such as the time spend used for social media. Moreover, the result showed that respondents whose income more than six million rupiah per month spent more time for soial media compared to the below rate income.

Table 1. Chi-square test

Chi-Square Tests			
Age and Purchase Frequency	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	30,186 <sup>a</sup>	16	,017
Likelihood Ratio	26,119	16	,052
Linear-by-Linear Association	9,093	1	,003
N of Valid Cases	120		
Respondent's Income and Time Used for Social Media	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	28,854 <sup>a</sup>	16	,025
Likelihood Ratio	26,772	16	,044
Linear-by-Linear Association	,039	1	,843
Respondent's Occupation and Purchase Frequency	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	27,711 <sup>a</sup>	16	,034
Likelihood Ratio	29,853	16	,019
Linear-by-Linear Association	,141	1	,707
N of Valid Cases	120		

**Consumer Segmentation of Home-made RTD Products**

Using K-mean cluster method we found that there are four clusters of consumer segment in this industry. Mostly, respondents were classified into cluster three with 38 members (31,7%), followed by cluster four with 35 members (29.2%), cluster two with 24 members (20%), and the last is cluster one with 23 members (19.2%). The means value as shown in the Table 2 were then categorized into three types based on the response rate : low response (1,00-2,33), moderate (2,34-3,67), and high (3,68-5,00). Personality relate to the question of purchase frequency and personal habit such as social media use, frequency of 'hang-out' with friends, and frequency ordering food online. Marketing mix relate to location preference they usually buy the product, product aspect (evaluation on the taste of the product, sensory aspect, and packaging aspect), price range that mostly preferred, and promotion type that attract them. Brand variable relate to the information and brand switching, close to the loyalty measurement to a brand of home-made RTD product.

**Cluster one** showed high response to the product quality, brand & promotion strategy, location, functional/health benefit, price, and purchase intention, while the response for personality, marketing mix, brand, appearance, and packaging practicality were moderate. Based on the questionnaire, cluster one show high interest to purchase this kind of product, but also demand a high quality, branded, approachable and interesting outlet, offering health benefit, yet still affordable. They had a moderate frequency of buying this product (3-4 times in a week), moderate usage of social media (2-3 hours a day), 3-4 times in a month meet with their friends, and 3-4 times in a week ordering food online. They also prefer to buy at mall or cafe, easy to change to other brand with better taste and quality, and keen on the brand reputaion and their knowledge about the brand. In short, they are a brand-loyal buyer. **Cluster two** showed high response to variable appearance, packaging practicality, product quality, location, functional benefit & health issue, price and purchase intention, while moderate response were on personality, marketing mix and brand & promotion strategy, and low response on brand. Result of questionnaire demonstrate that they are not really into brand reputation and influenced by promotion, but basically they buy because curious. Moderate frequency of personal habit similar to cluster one, yet they demand an interesting product design and easiness to consume. Overall, they are easy attracted by an interesting design. **Cluster three**, the response for packaging practicality and product quality are high, while response on personality, marketing mix, appearance, brand & promotion strategy, location, functional benefit & health issue, price, and purchase intention are moderate, and low response on brand variable. Questionnaire response show that they have a moderate frequency in personal habit similar to previous clusters, brand reputation is not too important for them and not easily influenced by the promotional strategy. They also do not put high awareness on the health benefit offered by the product, but instead they demand a high quality of the product such as taste, shelf life, and certified product as well as they demand an easy to consume product. In other words, this cluster easily influenced by the product taste and quality. However, their purchase intention response is moderate. Lastly, **cluster four** showed high response to variable appearance, packaging practicality, product quality, brand & promotion strategy, location, functional benefit & health issue, price, and purchase intention, moderate response on personality and marketing mix variables, and low response on brand variable. They show high intention to purchase the product, but also demand a good brand reputation and promotional strategy. They also aware to the product offering health benefit as well as to the product design and practicality. Their personal habit is similar to other clusters, and they choose a product based on their experience and knowledge about the product. This group has a good potential as buyer, but quite demanding on the brand and product quality.

Table 2. Cluster Centre Final Result

	Cluster			
	1	2	3	4
Personality	2.67	2.53	2.62	2.43
Marketing Mix	2.62	2.98	2.72	2.57
Brand	3.07	1.52	2.05	2.29
Appearance	3.26	3.77	3.58	4.49
Packaging Practicality	3.52	4.23	3.87	4.51
Product Quality	4.51	4.58	4.30	4.63
Brand & promotion strategy	3.74	3.58	3.45	4.06
Location	4.09	3.75	3.49	4.11
Functional benefit & health issue	3.83	3.99	3.45	4.19
Price	4.13	4.56	3.03	3.77
Purchase Intention	4.22	3.92	3.49	4.41

Each cluster was also profiled and resulting a proposed alternative target market considering the occupation, income rate, gender, and age. By integrating the cluster response towards the variables and the cluster profiling, cluster two emerged had a good potential to penetrate the market. It had a high purchase intention but they did not really influenced by the brand reputation and promotional strategy. It made them a potential target market for sales. Although they also had a high standard of product appearance and packaging practicality, but those two attributes are not too difficult to meet. Consequently, private company employees could be recommended as the potential market of a home-made RTD product.

## CONCLUSIONS

In conclusion, this research establishes a systematic study of consumer behavior towards a home-made and ready-to-drink products. Result suggests that the most influencing factor as the antecedent of purchase intention are attitude aspects regarding product appearance (packaging design) and packaging practicality, as well as the perceived behavioral control in term of functional or health benefit offered by the product. Demography factors such as age and occupation had a significant correlation with the purchase frequency, while income only had a significant correlation with the social media use. In addition, cluster two emerged as the potential target market for a home-made RTD. An integrated scheme between the analysis of customer segment and the response towards the variables influencing purchase intention potentially signaling the best approach to increase the sales outcome.

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