Analysis on Factors Influencing Purchase Decision on Mangosteen Skin Extract Garcia

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Abstract: In the last decade, business world has interesting industry, i.e. growing industry on traditional medicine. Garcia, a mangosteen skin extract product, is one of the products in traditional medicine industry marketed by PT Zena Nirmala Pratama (ZNP). Understanding consumer behaviour in purchase decision is the key of success for a company. This study aimed to analyse the influence of ZNP marketing mix and consumer aspects such as attitude, learning, motivation, and reference group towards purchase decision on mangosteen skin extract Garcia. Convenience and quota samplings were employed for sampling methods. Data were collected using questionnaires on 492 respondents of above 17 years old and had been purchasing Garcia in the last three (3) month when the study was conducted. Data acquired were analysed descriptively to describe respondent profile and Structural Equation Model (SEM) with Lisrel software was employed to assess the relation among the study variables. Descriptive analysis indicates that respondent profile (of highest percentage) consisted of female, 35-53 years old, Islam, high school graduate, married, of 4 family members in average, housewife, and IDR ±1,000,000 to 2,000,000 (USD ±77 to 154) as average expenses for food and non-food. SEM analysis indicates that significant and directly influencing variables on purchase decision were marketing mix, learning, and reference group, while non-significant variables on purchase decision were attitude and motivation.

Keywords: Lisrel, marketing mix, psychology, reference group, SEM.

1. Introduction

Rapidly growing business leads to increasingly high competition. Consumers face various product selection offered by each company to meet consumers’ need and desire. One persisting fact is human’s abundant need and desire [35]. Companies also need to improve doing their task in identifying various needs the consumers want. Therefore, company needs to carry out study on consumers’ behaviour in their marketing activity. The main purpose of marketer studying consumers’ behaviour is to understand why and how consumers make purchase decision. Purchase decision in consumer’s decision model is influenced by three main factors, i.e. marketing strategy, individual difference, and environmental factor [25]. Factors influencing purchase decision on a product or service also differ and change in particular time period. By understanding purchase decision, it will be easier for a company to plan their marketing strategy in accordance with what is expected by consumers and encourage consumers to make purchase decision.

In the last one decade, business world has interesting industry, i.e. growing industry on traditional medicine and the involvement of chemical medicine industry in the production of traditional medicine. Data from Bank Indonesia (2015) indicates that turnover value of herb and traditional medicine industries in domestic market is estimated to reach IDR 15 trillion (USD ±1,154 million) in the end of 2014, increased 7.14% from the previous year. Other data show that although market share for herbal medicine is yet to be as big as modern/chemical medicine, the medicine has a quite rapid increase potential.

One of the plants from Indonesia that can be used for such purpose is mangosteen (Garcinia mangostana L.), particularly its fruit skin. There are 118 solid and liquid traditional medicine products distributed in Indonesia that use mangosteen skin as its herbal material with distribution licence number (nilai izin edar/NIE) [17]. Such various products with mangosteen skin as their raw material is influenced by numerous study results on the benefit of mangosteen skin and, in addition to Malaysia, Indonesia is the centre of germplasm source for mangosteen [41][25].

Garcia, a mangosteen skin extract product, is one of the products in traditional medicine industry that is already distributed in market. Garcia belongs to herbal category with part of mangosteen skin as its raw material. This product is packed in capsules and put in bottles. The marketing of the product is handled by PT Zena Nirmala Pratama (ZNP) with the entire Indonesia as its network. Considering tremendous investment spent, it is critical for ZNP to carry out approach on how consumers behave in purchasing so the investment can be allocated appropriately and to increase the number of consumers. Consumer is one of the important parts in marketing because it is closely related to the success of a company to reach their goal.

The present study differs from the previous ones due to the addition of psychology variables (attitude, learning, and...
motivation) and reference group. Previous studies mainly approached purchase decision influenced by marketing mix (product, price, place, and promotion).

2. Literature Review

There are numerous studies related to assessment on consumer’s purchase behaviour on a product. Consumer’s purchase decision behaviour is influenced by several factors. This study limited to only three psychological factors, i.e. attitude, learning, and motivation, in addition to reference group and marketing mix.

2.1 Marketing mix

Marketing mix is a scientific theory, however a conceptual within on how a manager draw main decision to make their offer suits consumer’s need [33]. Studies by [7][1][24][38][27] stated that marketing mix significantly influences consumer’s decision through consumer’s behaviour. Marketing mix doesn’t only make consumers to make purchase decision but also make continuous purchase [19]. Therefore, company shall have good marketing strategy by implementing marketing mix in every marketing activity and shall understand consumer’s behaviour in making purchase decision. [6][9][23] stated that there is a significant relation between marketing mix and customer’s behaviour on consumer’s decision to make a purchase.

Marketing mix or known as 4P consists of four variables, i.e. product, price, place, and promotion. 4P is the basic of all marketing mixes growing up to now both for product and service [39]. According to previous studies, marketing mix’s variables significantly influence purchase decision.

2.2 Psychology and reference group

Studies by [30][31][34] showed that attitude positively influences purchase decision because consumers like, or are happy with, the product. Attitude variable can influence re-purchasing frequency [5].

Studies by [12][37][34] showed that consumers’ learning influences product purchase decision. Information will increase consumers’ knowledge. Higher learning will increase the possibility to purchase herbal product or increase consumption for the existing consumers [5][8][13]. Consumer’s learning on a product consists of product’s benefit, origin, and raw material [8][21][37][15]. According to studies by [30][42][34], motivation variable dominantly influences product purchase decision. In addition, [26][31][14][16] stated that indicators for consumers’ motivation are based on herbal material, high quality herbal material, safe material, trustworthy, and cost-efficient.

According to studies by [28][6][18], social factors significantly influence purchase behaviour. Such social factors are friend, family, and doctor/expert [23][29][8][3][20][21]. People are more influenced, or believe, information through word of mouth compared to media advertisement. Bad impression of a product or service can be sourced from bad experience, proving that negative word of mouth can lead to undesirable effect and positive word of mouth can create good impression for product/service purchase. Such negative and positive impressions are delivered through social roles [2].

3. Method

This study was conducted in March 2017 with Indonesia’s national area as the area scope. The location was selected according to Garcia’s official agents. This study employed descriptive method by conducting survey through questionnaire distribution to respondents who purchased Garcia from official agents. Samples were studied in a certain time with cross-sectional study design.

Samples in this study were consumers who purchased Garcia product. Non-probability sampling was employed as sampling technique and convenience and quota samplings were used as the method [36]. Convenience sampling was used for respondents who had the right to fill in the questionnaire fully depending on the researcher. Criteria for selected respondents were those above 17 years old and had been purchasing Garcia in the last three (3) months at the time of the study. Quota sampling was carried out by dividing the number of respondents based on the distribution of company’s current marketing independent network (non-conventional). Independent network refers to Garcia’s official agent in citizens’ association (rukun warga/RW) level. Total 600 questionnaires were distributed to represent population and to have fix samples. Data acquired were analysed using descriptive analysis and structural equation modelling (SEM) on the structural model used. See Figure 1 for the study’s conceptual logical framework.

Figure 1 Conceptual logical framework

Volume 6 Issue 8, August 2017

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4. Result and Discussion

Data were processed using two methods, i.e. descriptive analysis to describe respondent profile and SEM with Lisrel software to assess the relation between latent construct and manifest (indicator variable) or to assess relation between one latent construct and another.

4.1 Descriptive Analysis

The final acquired data were 492 questionnaires (492 respondents). Respondents were above 17 years old and had been purchasing Garcia in the last three (3) months, i.e. from January to March 2017. Respondents’ characteristics described the diversity in respondent’s profile data that represented market segmentation on Garcia product consumers.

Female respondents in this study were 68.3%, while the rest 31.7% were male. Respondent age distribution was dominated by 36-53 years old (52%). Religion dominated was Islam, i.e. 99.4%. Respondents were mostly high school graduates (42.5%) and married (94.1%). Their family members were four (4) in average (31.7%) and housewife dominated as the main occupation (43.3%). They mostly (51%) spent IDR ±1,000,000 to 2,000,000 (USD ±77 to 154) as average expenses for food and non-food.

4.2 Structural Equation Modelling (SEM) Analysis

Evaluation process can assess the fit level between original data (field data) and the designed model. According to [11], fit evaluation is carried out in several steps, i.e. overall model fit, measurement model fit, and structural model fit. When hypothesised model is yet to be a fit model, researcher can conduct model re-specification to reach good fit value. Therefore, it is necessary to have proper theory approach when conducting model re-specification [40]. Overall model fit data result after re-specification was an initial model result that eliminated several invalid indicator variables from initial measurement model step. Model measurement result after re-specification showed good fit p-value, i.e. 0.166 compared to initial poor fit value that was not in accordance with basic p-value (≥ 0.05). Overall model result that had been through elimination was used for the next step, i.e. measurement model fit step. Prior to the next step, Drugstore indicator from place variable was already eliminated from the model.

Measurement model fit step (second step) was carried out on each latent variable by testing construct validity and reliability. Indicator is valid when it has loading (λ) value with latent variable to be measured >0.5 (rule of thumb [10]) and has t-value of >1.96 [40]. Result after re-specification eliminated seven (7) indicators from model, i.e. Design from variable Product, Similar Product’s Relative Price and Supplement Product’s Relative Price from variable Price, Stall from variable Place, Printed Media from variable Promotion, and Friend’s Recommendation and Family’s recommendation variable from Reference Group. Measurement model after re-specification is the result of all valid variables.

Third, see Figure 2 for the result of measurement model after re-specification and its factor loading value and t-value.

The result of t-value test indicated that all exogenous and endogenous manifest variables had t-value of above 1.96, meaning that the indicator had significant relation with their each latent variable. It means all indicators were capable of reflecting their latent variables.

4.3 Hypothesis testing

According to t-value and path coefficient in the result, there were several variables significantly and insignificantly influence purchase decision (Table 1).
In addition, learning about a good product could positively influence purchase decision (particularly Garcia).

Consumers minimised adverse influence on purchase decision. However, their t-values were lower than 1.96, meaning the variables did not significantly influence purchase decision.

4.4 The Influence of Marketing Mix Factors (Product, Price, Place, and Promotion) on Purchase Decision

In general, consumers’ purchase decision on Garcia was more influenced by several marketing combination (marketing mix) such as current product, price, place, and promotion. This result was in accordance with studies by [7][24][27] who stated that marketing mix significantly influenced consumer’s decision through consumer’s behaviour.

Marketing mix was influenced in sequence based on their factor loading values, i.e. product (0.89), place (0.81), price and promotion (0.80). This indicated that in current marketing, product influences consumer’s purchase decision. Therefore, if marketers want to increase the number of consumers, first they have to improve/evaluate the Garcia product itself. In the product, consumers were influenced by definite composition in the product package (indicator Definite Composition with factor loading 0.75). Listing that Garcia is made of 100% mangosteen skin extract without additives positively influenced purchase. Consumers prioritised more on definite composition on the product package. This was related to safety and caution when purchasing products to consume. Consumers minimised adverse influence from the result of herbal product purchase decision (particularly Garcia).

4.5 The Influence of Psychology Factors (Attitude, Learning, Motivation) and Reference Group on Purchase Decision

In addition, learning about a good product could positively influence purchase decision. This was in accordance with [12][37][34] who stated that consumer’s learning influences product purchase decision. According to [32], information on a product can sources from information from other sources when consumers have yet to have experience to purchase the product, in addition to self-source information after knowing the benefit of the product. This study showed that product with benefit to maintain daily health (indicator Daily Health with factor loading value 0.91) contributed the most compared to other indicators. This explained that consumers with more learning on the benefit from Garcia have higher possibility to purchase the product compared to consumers with lesser learning on the product.

Consumers’ knowledge or information can be from anywhere. However, in this study reference group such as family member was an effective information source for a person. This was in accordance with studies by [22][29][8][3][21][20] who said that reference group influences purchase decision in delivering information. Information obtained influences a person in purchase decision. The results showed that family delivering information on the benefit of Garcia (indicator Information from Family with factor loading value of 0.57) contributed the most compared to other indicators. This explained that the information message content delivered by family member provides better influence (more effective) in influencing purchase decision compared to other reference group such as friends and health experts. In addition, consumer’s attitude and motivation gave no influence on purchase decision.

4.6 Managerial Implication

Managerial implication was determined based on three elements of marketing strategy, i.e. segmenting, targeting, and positioning (STP). Basically STP was used to put a brand in consumers’ mind in such way so the brand has continuous competitive eminence.

Segmenting: This was determined based on consumer’s learning variable as seen in indicator of consumers who were aware of the benefit of Garcia product to maintain daily health. Consumers who had healthy life pattern and currently suffered from illness were potential consumers the marketers paid attention to. Knowledge on mangosteen skin can counteract free radicals that are the source of diseases in human body. It is emphasized on consumers who are truly understand healthy life such as always maintain dietary habit and avoid meals that are of chemical nature.

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**Table 1 Result of hypothesis testing on several variables against Garcia purchase decision**

<table>
<thead>
<tr>
<th>Causality relation (direct influence)</th>
<th>Path coefficient</th>
<th>t-value</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marketing mix → decision</td>
<td>0.56</td>
<td>4.23</td>
<td>Significant</td>
</tr>
<tr>
<td>Attitude → decision</td>
<td>0.05</td>
<td>0.81</td>
<td>Insignificant</td>
</tr>
<tr>
<td>Learning → decision</td>
<td>0.29</td>
<td>2.12</td>
<td>Significant</td>
</tr>
<tr>
<td>Motivation → decision</td>
<td>0.02</td>
<td>0.18</td>
<td>Insignificant</td>
</tr>
<tr>
<td>Reference group → decision</td>
<td>0.22</td>
<td>2.11</td>
<td>Significant</td>
</tr>
</tbody>
</table>

Note: t-value > 1.96 is significant, t-value < 1.96 is insignificant, ‘→’ means ‘influencing’

Significant variables directly influencing purchase decision were marketing mix (path coefficient 0.56; t-value 4.23), learning (path coefficient 0.29; t-value 2.12) and reference group (path coefficient 0.22; t-value 2.11), while non-significant variables on purchase decision were attitude (path coefficient 0.05; t-value 0.81) and motivation (path coefficient 0.02; t-value 0.18). Positive coefficient value on attitude and motivation variables indicated direct influence on purchase decision. However, their t-values were lower than 1.96, meaning the variables did not significantly influence purchase decision.
According to healthy life principle, Garcia can be consumed by the consumer. In relation, marketer could also make article or review on the benefit of consuming mangosteen skin extract in printed and electronic media in health segment.

Targeting: According to consumers’ characteristic, Garcia’s potential consumers were housewives who were the most dominant ones in purchasing the product. The background for such domination in purchasing the product was the determining factor in purchase decision for family member’s daily need. Housewives who were involved in social activities could be potential customers, for example regular social gathering (arisan), family welfare movement (pemberdayaan kesejahteraan keluarga/PKK), housewives’ health exercise gathering, and others. Company can also carry out promotion or sell product during social activities whose participants are housewives.

Positioning, based on its high quality, Garcia has lots of benefits that were experienced (proven) by consumers with cost-effective price for consumers’ purchasing power. Based on product positioning on the consumers, when promoting on printed and electronic media, marketer needs to put forward message that Garcia has a proven benefit. The message can make new consumers interested in trying Garcia.

5. Conclusion

Based on the study and analysis result, there were several conclusions drawn, i.e.:

Marketing mix is a significant variable and the most influencing one on purchase decision compared to other variables (attitude, learning, motivation, and reference group).

Other factors (excluding marketing mix) significantly influenced purchase decisions were learning and reference group variables, while attitude and motivation are insignificant factors.

Managerial implication was based on three (3) marketing strategy elements, i.e. a) segmenting: marketer makes article or review on the benefit of mangosteen skin in printed or electronic media in health segment; b) targeting: marketer promotes or sells the product during social activities whose participants are mainly housewives, and c) positioning: marketer who promotes in printed and electronic media better puts forward message that Garcia has a proven benefit.

References


Author Profile

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