Using Adanco Software To Examine The Intention To Use Coffee. Evidence From Vietnam

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ABSTRACT

The purpose of the paper was to investigate the factors that influenced the intention to use coffee by using Adanco software. Survey data was collected from 284 consumers living in Ho Chi Minh City, Vietnam. The research model was proposed from the studies of the behavioral intention. The reliability and validity of the scale were tested by Cronbach's Alpha, Average Variance Extracted (Pvc) and Composite Reliability (Pc). PLS-SEM showed that intention to use coffee was affected by some components of the intention to use coffee.

Key words: Vietnam, PLS-SEM, intention to use coffee

1. INTRODUCTION

Coffee tree plays an important position in the local economy in general and in the agricultural sector in particular. Furthermore, it is meaningful in terms of both social and political viewpoints. Vietnamese coffee has high has a high yield and a delicious natural flavor thanks to favorable and weather conditions. Coffee trees are planted on the highland and high mountainous areas. Even though Vietnam ranks high in the list of coffee exporters in terms of yield and export revenue, the product value and export value are low due to the low processing content. Globally speaking, the reputation of Vietnamese coffee is still weak. It is essential to develop the local coffee market, decrease the dependence on importers, and build brands for Vietnamese instant coffee.

Vietnamese customers still traditionally drink coffee as a habit while there are users who are unable to afford to buy and using instant coffee... However, the local market for instant coffee consumption has great potential for increase. From that reality, we realized that in-depth studies about customer’s coffee using behavior are required.

The paper aims at identifying and measuring the level of impact of several factors affecting using intention towards instant coffee among Vietnamese customers to see whether they are positive or negative. From that, the paper gives some recommendations to help instant coffee producers and merchants promote local consumption, enhance brand value, increase export
sales and value as well as to promote Vietnamese coffee products and markets.

2. LITERATURE REVIEW

2.1. Consumption intention

The behavioural component consists of management behaviour and employee behaviour. Given the necessity for economic responsibility and the risen focus on purchaser selection. First and foremost, purchase intention expresses the reasonableness that customer projects or is ready to get a particular good or service in the future. When customers intend to purchase positively, this generates a positive brand commitment and motivates buyers to take real action [1]. Consequently, evaluating purchase intentions is a good foundation for future behaviour. Next, behavioural intention is intention to recommend for others and intention to repurchase [2, 3].

Consumption intention is defined as the subjective intention of consumers in conducting a specific behavior or action. Using intention consists of and is measured by two extremes. Positive behavioral intent tends to create loyalty between consumers and products, increase sales, encourage good reviews of products and suppliers, and willingly spend more to use products. On the other hand, negative behavioral intent results in consumers’ tendency to reduce or stop using the products, even to the point of turning to direct competitors and leaving bad reviews about products and suppliers. Prediction of intention is the first step in the prediction of actual behaviors. Thus, behavioral intent is described as the willingness of consumers in their actual behaviors. As a result, consumption intention is described as the willingness of consumers in using the product; studying consumption intention carries more weight than studying actual behaviors, especially for researches that provide a forecast or to find solutions.

2.2. Theory of planned behavior

The papers select and present a highly important and pioneering theory in the study of behavioral intent: the Theory of Planned Behavior, which is an extended, upgraded version of the Theory of Reasoned Action.

The Theory of reasoned action (TRA) is founded by Ajzen and Fishbein [1] proved that behavioral intent is influenced by two factors: consumers’ attitude toward behaviors and their subjective norms. The behavioral intention variable is a dependent variable and the focus of research because the behavioral intention is the best predictive factor of actual behavior. Actual behavior is defined by the intention of conducting the action.

Theory of planned behavior by Ajzen [4] is an extension of the reasoned action theory. This theory is developed in order to solve the limitation of the prior theory in assuming that individual
behavior is exclusively determined by their will. According to the theory of planned behavior, behavioral intention is under the influence of three factors in which two factors of Attitude and Subjective norms are inherited from the theory of reasoned action. The third factor is Perceived behavioral control, which reflects the level of difficulty human conduct a behavior.

**Intention:** Considered individually, the intention is based on an individual’s attitude toward the behaviour, perceived norms, and PBC, with each predictor, weighted for its importance in relation to the behaviour and population under assessment [5]. The stronger an individual’s intention to perform a behaviour, the more likely it will be performed.

**Behaviour:** Ajzen [5] described behaviour as the observable response in a given situation to a specific target. More specifically, the behaviour is a function of compatible intentions and perceptions of behavioural control. When behaviours pose no serious problems of control, they can be predicted from intentions with considerable accuracy [4].

**Behavioural beliefs and attitudes toward the behaviour:** Behavioural beliefs correspond to the favourable or unfavourable evaluations an individual has towards performing the behaviour in question [5]. Often we form beliefs about a behaviour by associating it with certain attributes (i.e., other objects, characteristics, events), and because these attributes can be positively or negatively valued, we often automatically and simultaneously acquire an attitude toward the behaviour. Through this process, people form favourable attitudes towards behaviours that lead to desirable consequences and unfavourable attitudes towards behaviours we associate with mostly undesirable consequences [6].

### 2.3. Factors affecting coffee consumption intention

The proposed research model in figure 1 consists of 8 independent variables and 2 intermediate variables [Perceived of convenience when using (PEU), Perceived of motivation for usage (PU), awareness of selling price (PRICE), awareness of product quality (QUA), subjective norms (SN), corporate image (IMAGE), trade and Promotion (PRO), distribution system (SYS), consideration for health (HEALTH), appeal of traditional coffee, perceived behavioral control (PBC), and 01 dependent variable (IB: instant coffee using behavioral intention)]. Respectively, there are ten research hypotheses proposed in Fig 1.
3. RESEARCH METHODOLOGY

The research methodology was implemented through two steps: qualitative research and quantitative research. Qualitative research was conducted with a sample of 10 people. First period 1 was tested on a small sample to discover the flaws of the questionnaire. The questionnaire was written by Vietnamese. The second period of the official research was carried out as soon as the question was edited from the test results. Respondents were selected by convenient methods with a sample size of 284 people.

The questionnaire answered by respondents was the main tool to collect data. The survey was conducted in 2019. Data processing and statistical analysis software are used by Adanco software. The reliability and validity of the scale were tested by Cronbach’s Alpha, Average Variance Extracted (Pvc) and Composite Reliability (Pc). Followed by a PLS-SEM was used to test the research hypotheses [7-15].

4. RESULTS

4.1. Consistency and Reliability

In this reflective model convergent validity was tested through rho(Pa), composite reliability or Cronbach’s alpha. The rho(Pa), Composite reliability and Average Variance Extracted were the measures of reliability since Cronbach’s alpha sometimes underestimates the scale reliability [7, 8, 11-13, 16, 17].

Table 1: Cronbach’s alpha, rho(Pa), composite reliability (Pc) and AVE values (Pvc)
Table 1 showed that composite reliability varied from 0.7030 to 0.9150, Cronbach’s alpha from 0.7665 to 0.8607 and Average Variance Extracted from 0.5192 to 0.8297 which were above the preferred value of 0.5. This proved that the model was internally consistent. To check whether the indicators for variables display convergent validity, Cronbach’s alpha was used. From table 1, it can be observed that all the factors are reliable (>0.60) and Pvc > 0.5 [7, 17, 18]. SN has Cronbach’s alpha (<0.6), Pvc (<0.5) but Pa and Pc better than 0.5 so SN will be accepted.

4.2. Structural Equation Modeling (PLS-SEM)

Structural Equation Modeling (SEM) was used in the theoretical framework. Partial Least Square method could handle many independent variables, even when multicollinearity exists. PLS could be implemented as a regression model, predicting one or more dependent variables from a set of one or more independent variables or it could be implemented as a path model. Partial Least Square (PLS) method could associate with the set of independent variables to multiple dependent variables [7, 8, 13-15].

SEM results in figure 1 showed that the model was compatible with data research [8, 13, 18]. The intention to use coffee (IB) was affected by Perceived of convenience when using (PEU), Perceived of motivation for usage (PU), Subjective norms (SN), and Perceived behavioral control (PBC) about 26.8%. The Perceived of motivation for usage (PU) were affected by selling price (PRICE), awareness of product quality (QUA), consideration for health...
(HEALTH) about 50.2%. The Perceived of convenience when using (PEU) was affected by (IMAGE), trade and Promotion (PRO), and distribution system (SYS) about 81.2%.

Table 2: Structural Equation Modeling (PLS-SEM)

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Beta</th>
<th>SE</th>
<th>T-value</th>
<th>P</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>PU -&gt; IB</td>
<td>0.1389</td>
<td>0.0608</td>
<td>2.2850</td>
<td>0.0225</td>
<td>Supported</td>
</tr>
<tr>
<td>PEU -&gt; IB</td>
<td>0.2306</td>
<td>0.0701</td>
<td>3.2891</td>
<td>0.0010</td>
<td>Supported</td>
</tr>
<tr>
<td>PRICE -&gt; PU</td>
<td>0.1989</td>
<td>0.0512</td>
<td>3.8833</td>
<td>0.0001</td>
<td>Supported</td>
</tr>
<tr>
<td>QUA -&gt; PU</td>
<td>0.5679</td>
<td>0.0558</td>
<td>10.1773</td>
<td>0.0000</td>
<td>Supported</td>
</tr>
<tr>
<td>HEALTH -&gt; PU</td>
<td>0.0695</td>
<td>0.0500</td>
<td>1.3910</td>
<td>0.1645</td>
<td>Unsupported</td>
</tr>
<tr>
<td>IMAGE -&gt; PEU</td>
<td>0.0306</td>
<td>0.0267</td>
<td>1.1436</td>
<td>0.2530</td>
<td>Unsupported</td>
</tr>
<tr>
<td>PRO -&gt; PEU</td>
<td>0.6290</td>
<td>0.0441</td>
<td>14.2700</td>
<td>0.0000</td>
<td>Supported</td>
</tr>
<tr>
<td>SYS -&gt; PEU</td>
<td>0.3094</td>
<td>0.0492</td>
<td>6.2870</td>
<td>0.0000</td>
<td>Supported</td>
</tr>
<tr>
<td>SN -&gt; IB</td>
<td>0.2880</td>
<td>0.0662</td>
<td>4.3484</td>
<td>0.0000</td>
<td>Supported</td>
</tr>
<tr>
<td>PBC -&gt; IB</td>
<td>0.0114</td>
<td>0.0564</td>
<td>0.2022</td>
<td>0.8398</td>
<td>Unsupported</td>
</tr>
</tbody>
</table>

Beta (r): SE = \( \sqrt{1-r^2}/(n-2) \); CR = \((1-r)/SE\); P-value = TDIST(CR, n-2, 2).

In the PLS-SEM analysis in table 2, the three variables associated with the intention to use coffee (IB)(p<0.05) and PBC is not correlated with IB (p>0.05). The PU aspect was not relative to HEALTH and PEU also was not relative with IMAGE as table 2. The most important factor for PU was QUA aspects with the Beta equals to 0.5679. The most important factor for PEU was PRO with the Beta equals to 0.629. The most important factor for the intention to use coffee (IB) was SN with the Beta equals to 0.2880.

Table 3: Measurement of PLS-SEM

<table>
<thead>
<tr>
<th>Standard</th>
<th>Saturated Model</th>
<th>Estimated Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>SRMR</td>
<td>0.0853</td>
<td>0.0904</td>
</tr>
<tr>
<td>d_{ULS}</td>
<td>5.3943</td>
<td>6.0514</td>
</tr>
<tr>
<td>d_{G}</td>
<td>1.9462</td>
<td>1.9968</td>
</tr>
</tbody>
</table>

PLS-SEM results showed that the model was compatible with data research[7, 17] in table 3. In bootstrapping, resampling methods were used to compute the significance of PLS coefficients. The output of significance levels can be retrieved from the bootstrapping option. Table 3 shows the results of hypotheses testing; all the t values above 1.96 are significant at the...
0.05 level. Seven hypotheses were supported and three were unsupported as table 2.

5. DISCUSSIONS

The main purpose of the paper is to examine the behavior intention model based on the theory of planned behavior (TPB). This paper investigated the factors that influence instant coffee using behavioral intention in Vietnam. This paper confirmed the reliability, the validity of measurement scales and verification of the relationship among constructs in the proposed research model. The mixed-method (qualitative and quantitative combination) was used for this paper. We please give some recommendations as follows:

Awareness of selling price (PRICE) and awareness of product quality (QUA) are the most to Perceived of motivation for usage (PU) of instant coffee’s usefulness. Therefore, in addition to investment in technology to create products of the best quality, instant coffee manufacturers and trading companies also need to build reasonable pricing policies to attract customers.

In addition to trade and Promotion (PRO), distribution system (SYS), companies need to step up product distribution. Reasonable distribution density will help shorten the time and distance required to send the products to the customers. Thanks to this, a company can gain long-term and sustainable competitiveness.

Regarding consideration for traditional coffee, the habit of using traditional coffee is the bar. Besides, the group reference factor takes the role of leading consumers to use instant coffee. As a result, the solution to be taken is the rational combination of promotional activities to help consumers realize the usefulness and benefit to health when using instant coffee. It is necessary to provide instructions on using instant coffee safely and in the right way to maintain coffee flavor. Companies should stimulate the demand for instant coffee in social development through the images of brand representatives at households, workplaces, and learning places.

Research results show that subjective norms (SN) has the impact on the intention to use (IB) so consumers are willing to support companies that always care about social responsibility. Therefore, companies need to focus on social activities that are beneficial to both them and society. The proposed solution combines a company’s marketing communication activities to promote its products/services with a donation to a non-profit organization for charity or social activity.

ACKNOWLEDGEMENTS

This research is funded by Industrial University of Ho Chi Minh City, Vietnam

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