Impact of Consumer Attitude in Predicting Purchasing Behaviour

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ABSTRACT

There is a questionable link between a positive attitude towards a product/company and the purchasing behaviour (Solomon, 2004). Attempts of finding solutions came up with the Theory of Reasoned Action (Fishbein and Ajzen, 1980), which attempts to link a product attitude to the intention to purchase and the frequency of past purchasing, and then predicting the purchase behaviour. However, this method proved to have bias related to the reliability of the relation between purchase intention and purchase behaviour (Mazurski and Geva, 1989; Mittal and Kamakura, 1991). This study presents a new and more reliable method of measuring attitudes and compares it straight to purchasing behaviour, to verify if there is a correlation between these two variables. In order to achieve that, 240 consumers of a food-delivery company (a high repurchase industry) were interviewed, in a descriptive research. The attitude was measured applying the Expectancy Value Model (Fishbein, 1963), where Beliefs were asked directly and the attributes to be considered in the calculation, as well as the importance of each attribute obtained, by indirect method. The results have shown that out of the 12 attributes researched, only 3 are considered by consumers to evaluate the product: On-time delivery, Food Price and Assortment of Restaurants; and that there is no positive correlation between a positive attitude and a higher purchase behaviour.

INTRODUCTION

The food-delivery industry is growing each time faster in many developing countries. There are two fundamental effects that are related to this growth: The enclosure provoked within big metropolis, with people staying at home more and higher transactional costs, related to increasing time (traffic), fear of violence and costs incurred when leaving home to, for an example, have dinner in a restaurant at the other side of the city (Provar, 2005).

The second largest city in the world and Brazil’s largest city, São Paulo is a good example of these effects. According to Provar (2005), a Brazilian institute for retail studies, linked to the University of São Paulo, 50% of the residents usually order home delivery food, and, on average, 41,9% order food at least once a week, mainly by telephone (86,2% of the total). Rio de Janeiro, the second largest city in Brazil also faces similar characteristics.

This study focused on this industry because it is characterised by a high frequency of purchase and mainly spread through roughly half of the inhabitants of
Brazil’s two largest cities. The high repurchase frequency makes it appropriate to analyse the aspects related to behaviour, once it might reflect a narrower link between consumer intention to purchase and the actual purchase. This link does not occur, for example in the automobile industry, where there is a big time “lag” between one purchase and another.

**LITERATURE REVIEW**

A Literature Review was made in order to provide a background to the method applied, with references to other papers and books related to this subject and to clarify the precise meaning of the terms used during this study.

**Attributes and Beliefs**

Attributes are the characteristics of a product (Solomon, 2004). According to Kotler (2005) products might be seen in three different levels: core product, actual product and augmented product. These three levels differ from each other by the degree in which they are mostly related to problem-solving benefits customers are seeking. All these benefits are communicated and delivered by tangible or even intangible product attributes, such as quality, on-time delivery, and design.

**Determinants of Value**

As the attributes that are considered by the consumers when evaluating a product are the ones which should be taken into account (Solomon, 2004), these attributes might be defined as the “Determinants of Value”.

According to Day (2001) the Determinants of Value are the attributes of a product that create value to the consumers. “And those attributes go beyond the tangible characteristics of the product, involving also the augmented product” (Day, 2001), making a reference to the concept described by Kotler (2005). The process of identifying the Determinants of Value, then, involves finding which attributes are the most important to the consumers. Determinants of Value can also be seen as products attributes that might differentiate from one brand to another, when a consumer is choosing between one or more products (Solomon, 2004).

**Attitudes**

A wider definition of attitude sees it as “an enduring organization of motivational, emotional, perceptual and cognitive processes with respect to some aspect of our environment” (Hawkins, Best and Coney, 2004). More specifically, “attitude refers to knowledge and positive or negative feelings about an object or activity” (Pride and Ferrell, 1991) and can also be seen as an “overall evaluation that expresses how much we like or dislike an object, issue, person or action” (Petty, Cacioppo and Strathman, 1991 apud Hoyer and Macinnes, 2001; Solomon, 2004).

According to Katz (1960) and Grewal, Mehta and Kardes (2000) attitudes serve four key functions for individuals: knowledge function, as a means of organizing beliefs about objects or activities such as brands and shopping, often determining subsequent behaviours; Value-expressive function, when attitudes are formed and serve to express an individual’s central values and self-concept; Utilitarian function, based on classical condition theory, with people tending to form positive attitude towards rewarding products and negative attitude towards other products and also Ego-Defensive function,
when people form attitudes to defend their egos and self-images against threats and shortcomings.

Attitudes are formed by all of the four different influences but generally one of them plays a more important role (Hawkins, Best and Coney, 2004). For this paper attitude will be treated as a Knowledge function, in such a way that it will be formed by the way individuals organise their beliefs towards a company and then form their subsequent purchasing behaviour.

Forming attitudes and Involvement

Attitudes are formed by three main components (Hawkins, Best and Coney, 2004): Cognitive Component, related to the consumer’s beliefs about a product, which can be generally evaluated; Affective Component, related to the feelings or emotional reactions to an object and Behaviour Component, the tendency to respond in a certain manner toward an object or activity. All the three components of attitude are relevant, but they might vary in the degree of importance according the motivation regard to an attitude object.

The concept of hierarchy of effects was developed to explain the relative impact of the 3 components on a sequence of steps to form attitude (Solomon, 2004). Depending on how the hierarchy is established, different kinds of attitudes are formed. When affect comes before behaviour and cognition, a mainly hedonistic purchase occurs, because consumers bought a product (behaviour) based only on their feelings about the product, without taking into account the beliefs (cognition) toward the product. This experience is characterised by Experimental Hierarchy. Another possible sequence of attitude forming might be when a consumer assigns beliefs to a specific product, then purchases the product and after that develops feelings about the product. This type of hierarchy is related to non-involvement purchases and is characterised by consumers not interested in processing all the information that is given. The last hierarchy follows this pattern: first a consumer forms his/her beliefs towards the company, then the feelings after that the purchase occurs. This type of hierarchy is mainly related to the problem-solving process, following more standard steps in the decision making process, typical of a higher involvement purchase.

The amount of involvement assigned to an attitude has a critical influence on how stable and consistent those attitudes will be, and also how difficult it will be to change them. Also the type of involvement determines how extended the search will be for information, the balanced evaluation of all the products attributes and how rational the decision rules are going to be (Solomon, 2004). So, a higher involvement consumer tends to have more consistent attitudes, making the “attitude change” process harder for marketers, thus consumers process a lot of information, evaluate all the attributes the product offers and also make a reasoned decision concerning which brand will be purchased. Low involvement consumers have their attitude changed easier, process less information, evaluate just a few attributes of the product (most important and some specific cut-offs) and usually have specific rules to decide which product to purchase, that are not necessarily rational.

In order to analyse involvement in this specific industry this paper will consider the number of the product’s attributes considered by consumers in order to form the overall satisfaction as an indicator of involvement, since data on the amount of search was unreachable and deeply influenced by telescope effects - consumers tend to make mistakes when evaluating the amount of time spent in specific activities when asked directly about it (Solomon, 2004).
Measuring Attitudes

“A consumer’s overall evaluation of a product accounts for the most of his attitude” (Solomon, 2004). In order to measure the attitude towards a company, it is important to understand which attributes are considered in the process of determining consumer satisfaction (determinants of value), in which degree each of these attributes are important to the customers, and, finally the evaluation of a company (beliefs) in all of these attributes. The Expectancy Value Model (Bass, 1972; Fishbein, 1963) was selected for this paper because it fulfills all of the previous requirements. The referred model is:

\[ A_b = \sum_{i=1}^{N} W_i X_{ib} \]  

where:

- \( A_b \) is the consumer’s attitude toward a particular company B;
- \( N \) is the number of attributes considered relevant by the customers;
- \( W_i \) is the importance the consumer attaches to attribute \( i \);
- \( X_{ib} \) is the consumer’s belief about the company B’s performance on attribute \( i \);

This model provides more interpretation regarding the relative importance of each attribute as a predictor of the dependent variable and therefore would appear more practical for marketing (Soonthonsmai, 2001).

Purchase Behaviour and Purchase attitude

It is important to understand the relationship between attitude and behaviour. The Theory of the Reasoned Action (TORA) (Fishbein and Ajzen, 1980) plays an important role in predicting the behavioural intention from the attitude toward a specific act and the influences of other people. However, when collecting data directly and at the same time, there is strong evidence of an error-prone positive correlation between the customers’ positive attitudes towards a company and the repurchase intentions (Mazurski and Geva, 1989). Also, positive attitudes at \( t1 \) have no correlation with repurchase intentions after a two-week interval (\( t2 \)) (Mittal and Kamakura, 1991). This might be caused by response bias, leading to untrustworthy data (Arnold, Feldman and Purbhoo, 1985)

Then, as predicting behavioural intention is not necessarily linked to predicting what customers actually do (behaviour) (Hoyer, MacInnis, 2001), this study focuses on analysing the purchasing behaviour instead of repurchasing intention.

Attitudes and Purchase Behaviour

Purchase behaviour is the consumer act of purchasing some specific product or service (Soonthonsmai, 2001). In this study the purchase behaviour is related to the act of order delivery-food.

“There is a lot of controversy on how a positive attitude towards a company or a brand can influence behaviour” (Pride and Ferrel, 1991). These two authors believe that consumer attitude towards a company and its products greatly influences the success or failure of the firm’s marketing strategy and Solomon (2004) says that there is no evidence that such a relationship can be established or not.

Whether an individual’s attitude will affect his/her behaviour or not depends on several factors such as: level of involvement or elaboration, knowledge and experience, accessibility of attitudes, situational factors and also personality variables. (Hoyer and MacInnis, 2001). Models in attitude measurement to predict and understand buyer
behaviour are important (Fishbein, 1963) and should be applied to different types of industry.

Table 1 – The Model Illustration

Hypotheses:

Few researches were made in order to verify the relation between attitudes and purchasing behaviour concerning Food-Delivery services. Also, it is not known how the “determinants of value” in this specific industry work. There is no evidence if there are many different determinants, which could reveal a compensatory decision making process or just a few, typical from non-compensatory decision rule. Then, the hypotheses of this paper are:

H1. The consumers in the food-delivery industry are low-involved in the purchase behaviour, since there might be a restricted number of “determinants of value” that are considered by the consumers in order to form the attitude towards the product.

H2. There is no correlation between a positive attitude towards the company and a higher purchasing behaviour in the food-delivery industry.

THE STUDY

Goals

This study focuses on how beliefs about each of the product’s attributes and the important weight associated with those attributes form an attitude towards a company and whether or not this attitude is correlated to purchasing behaviour. As consequences of this goal, the Determinants of Value in the industry will also be investigated through an indirect method, as well as the beliefs of the consumers towards the company.

Method

The source of data considered in this study involves research on secondary data to formulate the hypotheses, the questionnaire and the theories applied to the case. Primary data in a cross-section survey was used to evaluate the importance and the beliefs associated to each attribute, to measure the attitude and finally to verify if the correlation between a positive attitude is related to a higher purchasing behaviour. A survey interviewing method, with a structured questionnaire was used. This method was required to achieve projections from a research sample to a wider population (Dillon, Madden, Firtle, 1994)

The target population of this study represents the customers of an existing food-delivery company in the cities of São Paulo and Rio de Janeiro, Brazil. The sampling method consisted of selecting random clients from the company’s database, using as a
restriction the criterion that the customer had to have bought at least once in the last twelve months. The percentage of orders made in São Paulo and Rio de Janeiro was kept the same in order to select the consumers to be interviewed. Data on all historical purchases were also provided as well as the average price paid in all the previous purchases.

A pre-test was made before with 20 consumers to validate the questionnaire, after that the data was collected by telephone. Studies have shown that telephone surveys produce data essentially comparable to that collected via mail surveys and personal interviews (Aneshensen, 1982; Hochstii, 1967). This method was selected because of the low complexity and versatility of the collected data, the low amount of data required and costs (with interviews lasting about 15 or 30 minutes), the higher speed (Dillon, Madden, Firtle, 1994) and also because the telephone is the main way in which customers interact with the company nowadays.

Considering that the company has more then 10.000 clients in this situation, this research assumed an infinite population. So, 240 clients were interviewed, achieving a 90% confidence level, with a 6% error margin.

Measuring of variables involves “rules for assigning numbers to objects to represent quantities of attributes” (Nunally, 1967). Interval-scale questions, ranging from 1 to 10, were formulated in order to provide an accurate difference between the numbers assigned. Thus, interval data possesses order and distance properties and allows the performance of correlation and arithmetic mean measurement (Dillon, Madden, Firtle, 1994). Non-comparative scaling was used, with the customers evaluating each product attribute independently, without any standard provided by the researchers. At the end of each attribute evaluation, consumers were asked to provide an overall satisfaction grade.

The attributes used in the research were based on a previous study conducted by White (1999) analysing differences of catalog shopping and internet shopping in different restaurants. The attributes considered are:

- Quality of the products
- Assortment of restaurants
- Quality of Shipping
- Easy ordering
- Convenience of ordering
- Attendant’s menu knowledge
- Ease of payment
- Average delivery time
- On time delivery
- Quality of the catalog
- Food Price
- Delivery Price

Measuring Beliefs and Importance Weights

To determine which attributes are going to be used and to measure the beliefs and the importance, either the direct method or the indirect method can be used (Hawkins, Best and Coney, 2004). Direct methods include asking consumers what criteria they use in a particular purchase, and how do they evaluate each aspect of the product. This method assumes that the consumer can and will provide the desired data. Indirect methods assume consumers will not or cannot state their evaluative criteria properly.

This study uses the direct method for the evaluation of the attributes (beliefs) and indirect for the importance weights, mainly because the customer has experienced the service, but they could not provide the desired data on the importance of all those attributes once it would require a long time reflecting about how important each of the attributes was to him.

Instead of that, focusing on an empirical measure of importance, a multiple regression having all the beliefs evaluations as independent variables and an overall
satisfaction index as the dependent variable was made. The coefficients of this equation (provided by the regression) would determine which attributes and also in which degree each of these attributes influence overall satisfaction. The model, adapted with the Expectancy Model variables previously presented, is:

\[ S_b = \hat{W}_0 + \hat{W}_1 X_{1b} + \hat{W}_2 X_{2b} + \ldots + \hat{W}_l X_{lb} + e_i \]  

(3)

Where:
- \( S_b \) means overall satisfaction
- \( e_i \) means a constant used to improve the model predictability
- All the other variables are the same as the ones exposed in the table 1

In order to consider only the attributes that are really relevant by the consumers to determine overall satisfaction, this study used the Stepwise method, having all the variables entered and removed in order to achieve the best possible model.

All the data concerning to the company’s evaluation and the demographic characteristics were multiplied by a hidden factor “\( K \)” in order to preserve confidential information and focus on the analysis process instead of the numbers itself.

RESULTS

Sample’s Characteristics

The sample is mainly composed by adults, with an average age of 33 (thirty three) years old, with an average order number of 3,7 per client, which means that it is a product with a high repurchase behaviour, therefore appropriate for this study. The consumers are also mainly females, who represent 67 percent of the customers (table 2).

<table>
<thead>
<tr>
<th>Number of orders</th>
<th>Age</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>Min.</td>
</tr>
<tr>
<td>242</td>
<td>0,9</td>
</tr>
</tbody>
</table>

Sex

Male Female

0,33 0,67

Attributes evaluation

Table 3 shows all the attributes considered in this study and their descriptive statistical data. This study considers the means as the generic consumers’ belief on each attribute. The attribute best evaluated was convenience of ordering (8,07) and the worst attribute was food price (5,89). With the exception of On-Time Delivery, Delivery Time and Food Price, all the other attributes had a standard deviation ranging from 1,26 (convenience of ordering) to 1,82 (Attendant’s menu knowledge). The first three attributes, with standard deviation of 1,98, 2,11 and 2,62 presented the highest variation within the attributes, which means that there is a good range of consumers that are satisfied and also a good number unsatisfied with the attributes.

The overall satisfaction average, asked in the questionnaire after all the other attributes, is 8,08; higher than the evaluation of all of the considered attributes.
Table 3 Beliefs and Overall Satisfaction

<table>
<thead>
<tr>
<th>Attributed to</th>
<th>N</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assortment of restaurants</td>
<td>241</td>
<td>4</td>
<td>10</td>
<td>7.49</td>
<td>1.41</td>
</tr>
<tr>
<td>Quality of Shipping</td>
<td>242</td>
<td>0</td>
<td>10</td>
<td>7.32</td>
<td>1.59</td>
</tr>
<tr>
<td>Quality of the products</td>
<td>238</td>
<td>0</td>
<td>10</td>
<td>7.71</td>
<td>1.29</td>
</tr>
<tr>
<td>Easy ordering</td>
<td>232</td>
<td>0</td>
<td>10</td>
<td>7.58</td>
<td>1.69</td>
</tr>
<tr>
<td>Convenience of ordering</td>
<td>231</td>
<td>0</td>
<td>10</td>
<td>8.07</td>
<td>1.26</td>
</tr>
<tr>
<td>Attendant’s menu knowledge</td>
<td>213</td>
<td>0</td>
<td>10</td>
<td>7.37</td>
<td>1.82</td>
</tr>
<tr>
<td>Average delivery time</td>
<td>241</td>
<td>0</td>
<td>10</td>
<td>6.17</td>
<td>2.11</td>
</tr>
<tr>
<td>On-time delivery</td>
<td>240</td>
<td>0</td>
<td>10</td>
<td>7.06</td>
<td>1.98</td>
</tr>
<tr>
<td>Ease of payment</td>
<td>236</td>
<td>0</td>
<td>10</td>
<td>7.8</td>
<td>1.65</td>
</tr>
<tr>
<td>Quality of the catalog</td>
<td>222</td>
<td>3</td>
<td>10</td>
<td>7.72</td>
<td>1.44</td>
</tr>
<tr>
<td>Food price</td>
<td>234</td>
<td>0</td>
<td>10</td>
<td>5.89</td>
<td>2.62</td>
</tr>
<tr>
<td>Delivery price</td>
<td>235</td>
<td>1</td>
<td>10</td>
<td>6.4</td>
<td>1.81</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Overall Satisfaction</th>
<th>N</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Satisfaction</td>
<td>242</td>
<td>2</td>
<td>10</td>
<td>8.08</td>
<td>1.24</td>
</tr>
</tbody>
</table>

Attributes to be considered

The Stepwise method processed all the variables considered in the research and produced the three best models that could be formed using, as independent variables, all the possible attributes to explain the variance of the overall satisfaction (dependent variable) (table 4).

Table 4- The Regression Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.73 (a)</td>
<td>0.53</td>
<td>0.9</td>
</tr>
<tr>
<td>2</td>
<td>0.86 (b)</td>
<td>0.74</td>
<td>0.69</td>
</tr>
<tr>
<td>3</td>
<td>0.88 (c)</td>
<td>0.77</td>
<td>0.64</td>
</tr>
</tbody>
</table>

\( a \) Predictors: (Constant), On-time delivery
\( b \) Predictors: (Constant), On-time delivery, assortment of restaurants
\( c \) Predictors: (Constant), On-time delivery, assortment of restaurants, food price
\( d \) Dependent Variable: overall satisfaction

The third model achieved a higher \( R^2 \) index. Thus, On-time delivery, Assortment of restaurants and price explain 77% of the variation of the overall satisfaction. This means that there are 3 (three) important attributes that determine consumer satisfaction, from the consumer point of view. These attributes are the “Determinants of Value” and are the ones that should be considered in the calculation of the attitude.

Importance evaluation

The next step is determining to what degree (w) each of the attributes mentioned before influence the overall satisfaction. Table 5 provides information both on unstandardised coefficients and standardised coefficients. As all the independent
variables used to predict the regression are on the same scale, it's possible to focus the measure of the importance on the standardised coefficients. Then, the higher a coefficient is, the higher the likelihood of having this attribute exerting big influences on the overall satisfaction prediction model.

The most important attribute is “on-time delivery” (0.52), followed by “assortment of restaurants” (0.42) and “price” (0.21) as the last important attribute in describing consumer satisfaction.

Measuring attitude

Remaking the Expectancy Value Model (Bass, 1972; Fishbein, 1963) with now the importance weights, we have the following formula:

\[ A_b = 0.53 \text{ Beliefs on On-Time delivery} + 0.42 \text{ Beliefs on Assortment of Restaurants} + 0.21 \text{ Beliefs on Price} \]

Applying this formula to all of the interviewed, each customer’s attitude towards the service is estimated. The summary of the attitude measurement is in the table 6 below:

<table>
<thead>
<tr>
<th>Attitude (Ab)</th>
<th>234</th>
<th>5,1</th>
<th>11,4</th>
<th>9,1</th>
<th>1,5</th>
</tr>
</thead>
</table>

* Cases with missing values were excluded

It can be noticed that the attitude measured by the customers of the company is, on the average, 9,1. The maximum and the minimum are 11,4 and 5,1 respectively.

Correlation between attitude and behaviour

Table (7) shows a Pearson Correlation of 0.04, with a significance of 0.49, which means that the correlation between the attitude towards the company and the purchase behaviour is not statistically significant.
CONCLUSIONS AND MANAGERIAL IMPLICATIONS

As the results show, there is no statistical evidence that could support assuring that there is a positive relationship between a positive attitude towards a service and a higher purchasing behaviour. Therefore, we accept H1. As the Determinants of Value of the company are only 3 (three) out of a range of 12 possible determinants which influence the quality of the service, it can also be highlighted that the consumers are low-involved in the act of purchasing. As a consequence of this low involvement, consumers might first form their beliefs toward the company, decide to purchase or not, and after that, consider the feelings of the product.

As managerial implications, it is possible to highlight that being excellent in the attributes considered important to determine consumer satisfaction is not enough to guarantee a higher purchasing behaviour. This means that the focus has to be changed from trying to satisfy all the consumers, investing resources in building a “state-of-art” service to understanding groups of consumers’ specific interests and decision rule processes associated with purchasing behaviour. From this point-of view, a company does not need to be the best, but adequate to the consumers needs.

LIMITATIONS AND FUTURE STUDIES RECOMMENDATIONS

This study assumes that the subjective norms associated with the attitude, as the beliefs that specific references think a consumer should or should not buy a specific product and the consumer motivation to comply with the specific references, are implicitly exposed in the evaluation of the beliefs each consumer has about each attribute. Also, the conclusion can be applied for the level of involvement of the industry in question, which means that other industries - characterised by different levels of involvement - the results could be different.

For future studies, it is relevant to investigate the nature of the decision-making rules involving purchasing such a service. As shown in this study, attitudes have a non-compensatory nature: the attributes considered relevant by the clients are just 3 (three) out of the 12 attributes presented to the consumers. Therefore, it is not true that a consumer is going to repurchase the product even if he has a positive attitude toward it, as this study has shown. Then, consumers might use specific shortcuts to make decisions concerning the purchase of products, representing fundamentally non-compensatory decision rules. So, it is necessary to carry out further investigation to determine which non-compensatory decision rules could be applied to this case and how these different rules might relate to the purchasing behaviour.
REFERENCES


