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MULTI-ATTRIBUTE MODELS AND SOFT DRINKS

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Abstract

The purpose of this paper is to examine the relationship between the theoretical knowledge of attitudes and their measurements and practical consumer behavior when buying soft drinks. The paper intends to test the theoretical multi-attribute models on the behavior of consumers. The consumer attitude is important to the process of buying, because it relates to what an individual thinks feels or do about a product, brand, shop, company, idea or anotherperson. Whether the consumer will decide to buy a product or not depends on his attitude. Although attitudes are quite stable, they can be learned over time, through experience, word-of-mouth, Internet, mass media, catalogs and etc. In theory, there are different models for measuring consumer attitudes, but this paper focuses on multi-attribute attitude models, like Fishbein model, Theory of reasoned action, Theory of planned behavior, Model of Goal-directed behavior and Ideal Point model of Reference. These models will help to understand how consumers imagine the "ideal" soft drink and how they evaluate existing brands in the beverage market. However, the major finding is that although the researchers have used multi-attribute models for many years, they have a considerable drawback that cannot predict consumer behavior. They help in identifying person's attitude, but they are not a good predictor of their behavior.

Keywords:

Attitude;
Fishbein model;
Soft drinks;
Consumer;
Multi-attribute models.

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1. Introduction

In marketing literature there are various definitions of attitudes, but most widely quoted is the one of Fishbein and Ajzen (1975) that an attitute is a "learned predisposition to respond in a consistenly favorable or unfavorable manner with respect to a given object." Petty and Cacioppo (1981) define attitude as “a general and enduring positive or negative feeling about some person, object or issue.” Attitude is the expression of inner feelings (favorable or unfavorable) of an individual towards a particular object, event or person. An attitude is "a relatively enduring organization of beliefs, feelings, and behavioral tendencies towards socially significant objects, groups, events or symbols" (Hogg,& Vaughan 2005) Attitude is a general evaluation of a product or service formed over time. (Solomon, 2008). The attitude of consumers is a combination of perceptions, values and beliefs. The consumer should first be aware of the product and then builds beliefs and values for it, and at the end he decides whether to buy or not to buy the product. Attitudes are formed as a result of positive or negative personal experiences of the consumer.

In general, attitudes have three main components:[†]

A) Cognitive component involves a person,s belief or knowledge about an attitude object (“I believe that soft drinks are not dangerous for my health”),

B) Affective component that refers to feelings (emotions) that a person has about the attitude object (“I like soft drinks!”) and

C) Conative (behavioral) component determines what actions a person will take about the attitude object (“I will buy soft drink on my way home”).

The attitudes are relatively permanent, but they can change over time. According to marketing researchers, attitudes have two negative sides:

Based on the attitudes only, one can not make conclusions about the **act of buying**, meaning that attitudes are different from behaviour. Attitudes can tell us what the consumer thinks and feels about the product or a service, but it is not a guarantee that he/she will buy them. Attitudes are not a good predictor of a future consumer behavior. For example, a consumer may have a positive attitude towards Coke, but he has no intentions to buy it. The buying act does not depend on attitudes only, but it is affected by other variables as well, such as culture, subculture, family, friends, colleagues, marketing activities of companies, social class, etc., and

B) A product can have **many attributes or qualities**, some of which are more important than others to consumers. In measuring the overall attitude of consumers, it is difficult objectively to measure all these attributes.

Because attitudes can be complex, **multi-attribute attitude models** have been extremely popular with marketing researchers. Multy-attribute models specify three elements:

A) Attributes or characteristics of an attribute object that have to be taken into consideration when measuring the attitude of the consumer. The consumer determines the (mostly through the use of a questionnaire with open questions) salient attributes of the product.

[†]http://www.simplypsychology.org/attitudes.html (visited on 23th of February, 2017)

B) Beliefs are cognitions about the attribute object. They measure the extent to which the consumer perceives that a product possess a particular attribute. In order to discover the consumer's beliefs, marketers use both scales, Semantic differential and Likert scale.

C) Weights reflects the relative priority of attributes of products for the consumer. The priority attributes that are more important for the consumer have greater weight.

In theory of consumer behaviour, the following multi-attribute models are most quoted:

A) Fishbeinmodel (Fishbein, 1967) is one of the oldest models for measuring the attitudes of consumers. This model has three components: a) overall attitude about an object; b) salient beliefs that people have about an object and c) evaluation of each of the important attributes. The overall attitude is obtained by multiplying a consumer's rating of each attribute for all the products considered by the importance rating for that attribute. This model was extended several times in order to improve its predictive ability.

B) The theory of reasoned action (Fishbein and Ajzen; 1969, 1980) tries to estimate the discrepancy between attitude and behavior. The theory is related to voluntary consumer behavior. Customer behaviour is determined by his/her intention to perform the behaviour and the intention is a function of his/her attitude toward the behaviour and subjective norms. This theory has three general constructs: a) bihevioural intention, b) attitude and c) subjective norm. Intention is the cognitive representation of a person's readiness to perform an intended behaviour and it is considered to be the immediate indicator of behaviour. Behavioral intention measures the relative strenght of a person's likelihood to perform an anticipated behaviour. Subjective norm is a belief about how significant people around customer will view the behaviour in question. The theory of reasoned action aims to measure behavioural intentions, recognising that certain uncontrollable factors inhibit prediction of actual behaviour (the power of other people in influencing behaviour). The model now measures attitude towards the act of buying, rather than just the attitude towards the product itself.

C) Theory of planned behavior (Ajzen; 1985, 1991) is an extension of the theory of reasoned action. Having in mind that consumer behaviourcan not be 100% voluntary and under control, the author added perceived behavioral control in the previous model. With this addition the theory was called the theory of planned behavior. This theory predicts deliberate behaviour. Perceived behavioural control refers to people's perceptions of their ability to perform a given behaviour. These predictors lead to intention. In other words, to predict the person's intentions to perform a desired behaviour, one has to know whether the person is in favour of doing it (attitude), how much the person feels social pressure to do it (subjective norm) and whether the person feels in control of the action in question (perceived behavioural control). By changing these three "predictors", the chance that the person will intend to do a desired action is increased, and thus the chance of the person actually doing it increases too.

D) Model of goal-directed behavior incorporates emotions into the model. This model suggests that in order marketers to predict intentions and future behaviour of consumers, they have to consider the anticipated emotions and any past experience with the product. The model is called "goal-directed" because emotions are strongly linked to goals and provide a powerful motivator for behaviour. (Sutton, 1998)

G) Ideal-point model of Preferences (Huber, 1976) isa model of consumer attitude formation asserting that the consumer rates a product according to the degree to which it resembles several ideal product characteristics defined by the consumer.

FIGURE 1: FORMULAS OF THE ATTITUDE MODELS

Fishbein model

$A0 = \sum BiEi$

Theory of reasoned action

BI = Aact + SN

Theory of planned behaviour

BI = Aact + SN + PCB

Model of goal-directed behaviour

B = BI + Aact + SN + PCB + FPB + RPB + D + PosEA + NegEA

Ideal point model of preferences

$Ao = \sum Wi \quad Ii - Xi$

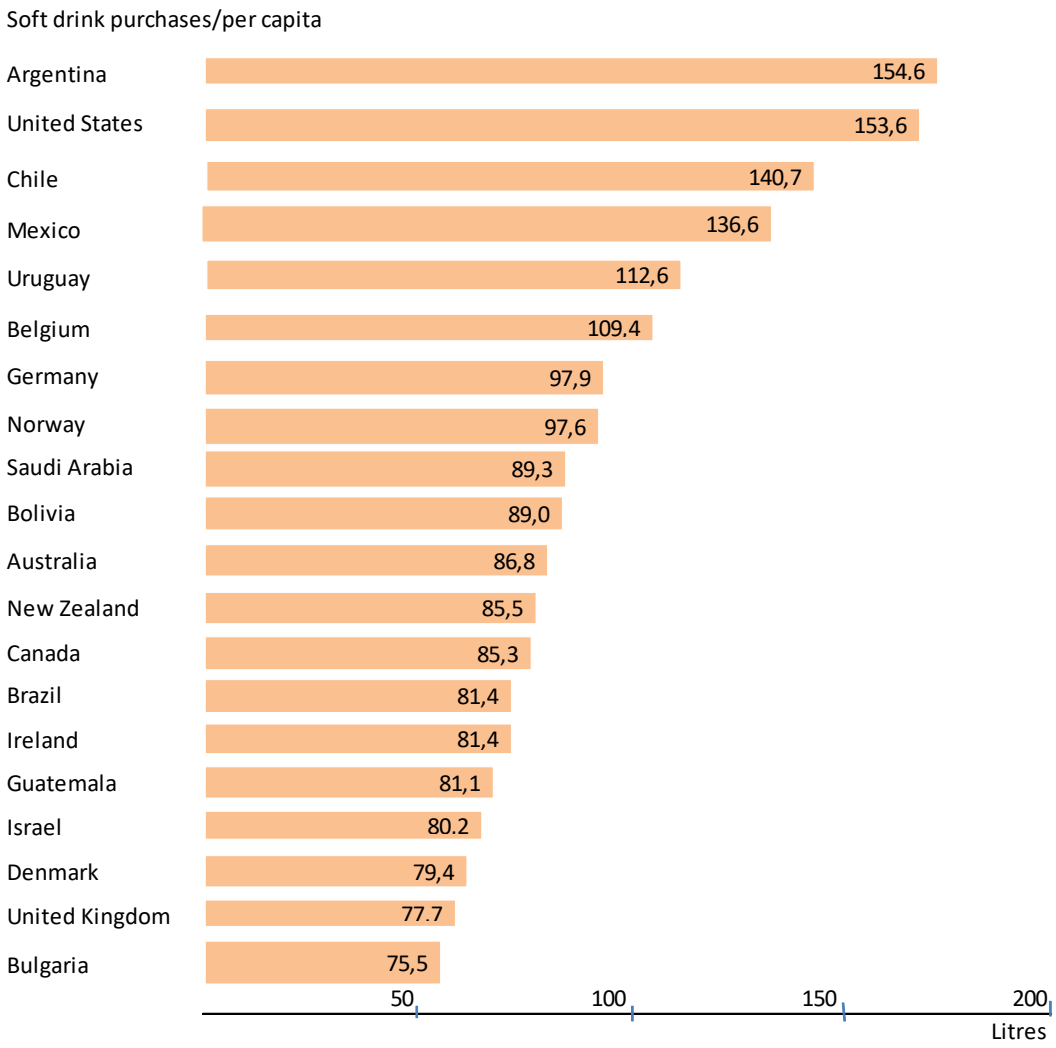
Ao = Attitude towards object
Aact = Attitude towards act
Bi = Belief about the product's possession of the attribute
BI = Behavioural intention
D = Desire
Ei = Evaluation of the attribute
FPB = Frequency of past behaviour
NegEA = Negative anticipated emotions
PCB = perceived behavioural control
PosEA = Positive antiipated emotions
RPB = Recency of past behaviour
SN = Subjective norms
Wi = Importance of the attribute
Ii = Ideal amount of attribute
Xi = Perceived amount of attribute contained by product

Source: Michael Solomon, Rebekah Russell-Bennett, Josephine Previte, "Consumer Behaviour", Pearson Australia, p.226

The motive for writing this paper that applies theoretical knowledge to practical example of soft drinks comes from the fact that, despite the damage to health, soft drinks are still on the menu of younger generation. They have become so much a part od modern living, especially in major cities. The most harmful effects of soft drink consumption is that its high sugar content can contribute to the development of obesity, dental decay and the weakening of bones. However, strong refreshing taste, flavour, carbonation, advertisements influence on increased

consumption among consumers. While soft drinks are popular the world over, below is a list of the top per capita soft drink-consuming countries in the world.

FIGURE 2: TOP 20 SODA-DRINKING COUNTRIES IN 2014



Source: http://www.npr.org/sections/goatsandsoda/2015/06/19/415223346/guess-which-country-has-the-biggest-increase-in-soda-drinking & http://www.worldatlas.com/articles/countries-with-the-highest-levels-of-soft-drink-consumption.html

2. Research Method

For the purpose of this paper, two sources of data were used:

A) Secondary sources: data and information from reviewing the literature on attitudes and their measurement.

B) Primary data: the data necessary to develop the final questionnaire were divided in two sections: a) demographic data (gender and age) and b) psychographic data on person's opinions, beliefs, attitudes, and preferences collected through Likert scale and Semantic Differential Scale. The questionaire was randomly

distributed to 60 individuals, in period between 15th of January and 15th of February, 2017. Results were collected by e-mail and Facebook.

3. Results and Analysis

In the case study, attitudes of consumers towards three brands of soft drinks were examined (Coca Cola, Pepsi and Not-cola drinks like Sprite, Fanta, Schweppes, 7UP and etc.) At first, consumers were asked to identify the most important (salient) attributes of soft drinks in general. They were asked about the most important attributes by using the following open-ended question: "What are the most important attributes of soft drinks?". Consumers stated several attributes, but as most important were pointed out:

a) Taste,
b) Calories,
c) Carbonisation,
d) Price and
e) Advertisment appeal

Other attributes that were mentioned were: packaging, the way of opening, size, health issues, the ways of storage, etc.

FIGURE 3: Results according to Fishbein multi-attribute model

		Coca Cola		Pepsi		Not cola drinks	
Attributes of soft drinks	Importance of an attittude rating Ei	Belief	b x E	Belief	b x E	Belief	b x E
Taste	2	3	6	1	2	1	2
Calories	3	3	9	3	9	3	9
Carbonisation	-1	2	-2	-1	1	-3	3
Price	1	-1	-1	-1	-1	0	0
Ads appeal	2	3	6	1	2	1	2
Attitude score A0			**18**		**13**		**16**

Then, consumers were asked to rate the stated attributes according to their importance (Ei). For this purpose a scale of 7 items, ranging from -3 (very bad) to +3 (very good) was used, for each of the salient attributes. According to the results, calories, taste and advertisements are the most important attributes of soft drinks to customers. The price and carbonization are the least important attributes. It doesn't mean that they are not valid, but customers expect carbonization to be on that level and are satisfied with the price of the soft drinks.

The component Bi shows how much customers believe that the actual brand possess the salient attribute. Beliefs, were, also measured on a scale ranging from -3 (very unlikely) to +3 (very likely). For each brand of soft drinks (Coca Cola, Pepsi, Not cola drinks), beliefs of consumers about each attribute are estimated. (3 brands and 5 attributes result in 15 belief measurements).

The final results, according to Fishbein model, show that Coca Cola has the maximum score (the best score) of 18.This drink has the best score n taste, calories and advertisement appeals. Carbonisation and price are negative, but these variables are in favoure of Coca Cola. The other soft drink Pepsi lack points in taste and advertisement appeals. Not cola drinks need to pay more attention to advertising and taste.

The Table below shows the results of Model of Ideal point:

FIGURE 4: Results according to Ideal-Point model of Preferences

			Beliefs Xi		
Attributes of soft drinks	**Importance of an attittude rating Wi**	**Ideal point Ii**	**Coca Cola**	**Pepsi**	**Not cola drinks**
Taste sweet (1) - bitter (7)	6	2	2	6	6
Calories many (1) - few (7)	7	5	4	4	2
Carbonisation high (1) - low (7)	3	3	3	4	2
Price high (1) - low (7)	5	5	4	4	5
Ads appeal good (1) - bad (7)	6	2	1	5	6
Attitude score Wi * (Ii-Xi)			**17**	**57**	**72**

On the Likert scale, ranging from 1 (not important) to 7 (very important), respondents were asked to state the importance of attributes of soft drinks in general (Wi), as well as their "ideal" (preffered) attribute (Ii) for soft drinks. After this, consumers were asked to state their beliefs about the attributes that are possessed by concrete brands (Xi). Consumers perceive "ideal" soft drink with a little sweet taste, low calories, middle-level carbonization, good promotion and low price. Coca Cola seems to be very close to "ideal" soft drink according to almost all attributes. Other soft drinks lack promotion and taste mostly.

The Ideal point model od preferences means that the lowest points are better than higher ones, or they are close to the ideal, that is quite opposite than Fishbein model. The ideal results are obtained if the actual brand has an overall attitude core of zero.

For the purpose of other models, that include the customer's intentions to buy soft drinks and their emotions and feelings about them, the following results were obtained:

Question: "Does advertising affect on your buying decision of soft drinks?" Out of 60 respondents, 43 said "yes", 10 are undecided and 7 said "no". This confirms the postulates of **Theory of reasoned action** that states that subjective norms (the environment around customers and social pressure) influence customer' decision making. This was also confirmed with the results of the following question**: "Does information on health damage by soft drinks influence on your buying of soft drinks?**" Out of 60 respondents, 47 replied "yes", 2 are undecided and 11 stated "no".

However, customers like soft drinks, but they do not intend to buy them often and in big quantites. This notion was confirmed by questions: **"Do you intend to buy soft drinks in the course of this week?" and "How often you consummate soft drinks per week"?**Actually results supported the **Theory of planned behavior** when out of 60, 36 replied that they have intention to buy soft drinks in the course of the week, 20 were undecided and 4 replied with "no".

The final results show that people like soft drinks, but they are not so willing to buy and consume them often. It means that for decision buying not only **psychological factors** are important, but also companies need to pay attention to **social factors** (culture, subculture, reference groups, friends, social status) and **marketing activities** (product, price, distribution and promotion).

4. Conclusion

Even not so often, but generally people want to buy and consume soft drinks. Regardless of age and gender, people have a positive opinion for soft drinks. According to respondents, an "ideal" soft drink should have a challenging taste, good flavor, few calories, medium carbonation, optimum price (neither high nor low) and very good promotion.

People make the decision to buy soft drinks based on psychological factors, but also on the basis of social pressure. On their buying decision, friends, colleagues, mass media, or subjective norms have a great influence. Results also show that people pay attention to advertisements and promotion of goods.
The results of the research were supported by the theoretical multi-attribute attitude models. In order companies to be successful, they need to research the needs, demands, wishes and preferences of consumers, as well as the impact of the external environment to buying decision of customers.

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