

## THE IMPORTANCE OF FACTORS THAT INFLUENCE ON CONSUMER PURCHASING DECISIONS OF FOOD PRODUCTS

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### Abstract

There are many factors that have influence on consumer behavior. Those factors are basically divided into external and internal factors. The main objective of this study was to determine which factors have greater impact on consumers when it comes to their purchasing decisions.

The survey was conducted in 2013, using a sample of 215 respondents (75 male and 140 female), students of Faculty of biotechnical sciences in Bitola, Republic of Macedonia on age from 19 to 22 years. The sample of variables includes 10 questions (statements) of which the first five include external factors that have influence on the purchase of the consumers, while the other five are internal factors. This research employs questionnaire which involves Likert scale. The participants were offered statements numbered consecutively from 1 to 10, according to the questionnaire, and answers were provided on Likert scale.

Descriptive measures of the questionnaire results show the average value of the response of the participants, the way most of the participants responded, the deviation and differences in the responses. The assumption that the empirical schedule has qualities of a normal schedule is confirmed on the basis of descriptive measures, which can be determined by comparison of the mean values of responses to individual questions as well as the results of the survey as a whole (the value of the mean, mode and median were without significant differences).

It can be concluded that these parameters indicate that when purchasing consumers are mostly guided by psychological factors and slightly less by external factors, i.e. opinions of family, friends, financial torque, etc., and that their personal image, their mood, etc. are more important for them. The importance of financial, economic factor is particularly noted, because it was the strongest in the framework of external factors and, of course, it has the biggest impact on consumers.

It is important to shed light on consumer behavior and on structure of different aspects of the internal and external factors that have impact on buying decisions for food products.

**Key words:** Marketing, Consumer, Internal and external factors, Purchasing decision.

### 1. Introduction

A consumer is the key base of marketing. To define a good marketing plan, it is essential to research customers - their characteristics and needs, lifestyles and decision-making process for purchase, and on this basis, bringing appropriate decisions about the marketing mix. The task of marketing professionals is to understand what is going on in consumer's consciousness ("black box") between external stimuli and consumer decisions about purchases. Consumer behavior is not simple one.

As main aim of the research was an attempt to determine which group of factors has a greater impact on the structure of consumers in the choice of purchase? The basic assumption applies to the advantage given to internal factors such as psychological factors that have a greater impact on consumers in relation to external factors. Consumers are under the constant influence of the environment and react to certain stimuli which they received from the environment, but act in a manner that is inherent in their personalities. This means that a person behaves and accepts certain effects based on their own value system and in accordance with a unique conceptual image which the person himself supports the personality of the displayed situation. Explanation of consumer behavior based on the impact of economic factors is more realistic and perhaps more easily doable, but we should not consider only external factors, because of

their lack of the interpersonal perspective, which is given with internal factors of psychological nature. For this reason, a complete picture of consumer behavior can be obtained only from correlation and unity of observing internal and external factors that affect consumers' behavior. Only then we can talk about the final stage and final instance in the real terms, and it is decision for purchase.

Consumers are affected by numerous factors which can be divided into two groups, and those are external and internal factors. External factors are real factors and indicators, without which you can't get the profile of the target groups through benefits, living area, etc. Internal factors, on the other hand, speaks for the internal state of personality of consumers which is gaining more importance in the modern world and can't be omitted in any case. External factors are factors that appear in the environment of consumers, and internal factors are related to the mental state of the consumer. In fact, only a combination of these factors may show a complete picture of the impact on consumer behavior and on the various manifestations of this behavior. It's difficult to determine which factors have a stronger impact on consumers, functioning on the principle of reciprocity and reciprocal determinism that is based on well-known causal relationships. Behavior is defined by determinants of influences coming from the environment, and this theory is in accordance with environmentalists approach to consumer research. These theories are reduced to the relationship of the individual to its environment and surroundings. There are also theories that give priority to the consumer psyche. Consumer behavior is influenced by many interrelated factors. In marketing literature, authors are stratifying these factors in various ways.

For our research of particular significance is the classification according Kotler and Keller [1], which classifies factors to external and internal, and then goes further to division into geographic, demographic, economic, sociological, psychological, and political factors. Some authors [7] to this classification add situational factors.

The basic division of internal and external factors is following:

**1. External factors**

- Geographical factors: geographic area climate and climate patterns, land relief, population density, ecology.
- Demographic factors: population rate, gender, age, marital status and household types, the educational structure of the population, the ethnic structure of the population.
- Economic factors: macroeconomic conditions (general economic conditions, growth rate, inflation, unemployment), consumer purchasing power, will-

ingness of consumers for consumption, purchasing structure of consumers.

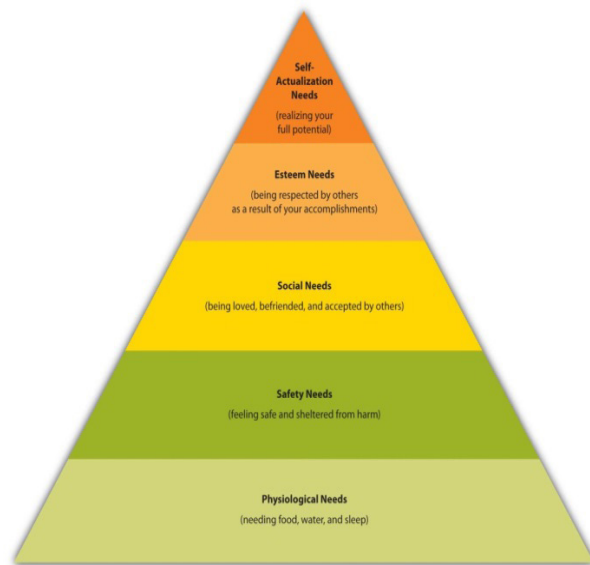
- Sociological factors: culture, social factors (roles and status, reference groups, family).
- Situational factors

**2. Internal factors**

- Psychological factors: personal factors (age and life cycle-stage, occupation and economic status, personality and self-image, lifestyle and values), psychological processes (motivation, perception, learning, memory, beliefs and attitudes).

Most authors in the foreground emphasize the importance of behavior science, particularly psychology, to be able to come to the knowledge of why customers behave in the purchasing process as they behave.

Internal factors that influence on consumer purchasing decision for food products are in the correlation with consumer psychological needs shown on the bottom of Maslow's hierarchy of needs (Figure 1) [3].



**Figure 1. Maslow's hierarchy of needs [9]**

The need for food is recurring. People have to fulfil their basic needs - like the need for food, water, and sleep, before they can begin fulfilling higher-level needs. Because of that, psychological factors have the biggest impact on consumer behavior for food products than external factors.

The aim of this research is to determine which group of factors has greater influence on structure of consumers within choice for purchasing. The basic assumption refers to the advantage given to internal factors such as psychological factors that has greater influence on consumers compared to external factors.

## 2. Materials and Methods

The sample comprised 215 participants (75 males and 140 females), students of the Faculty of biotechnological sciences - Bitola, Republic of Macedonia at the age of 19 to 22 years. The survey was conducted during 2013.

The sample of variables consists of 10 items of which the first 5 include influence of external factors on consumers purchasing, while other five are internal factors. The samples of variables for evaluation of marketing positions are shown in the Table 1 and Table 2.

**Table 1. Marketing attitudes - external factors**

1.	The purchase of products depends on the amount of money which I have at the moment
2.	It is important for me what my family will say for the things I buy
3.	I will sacrifice the purchase of a product (I will not buy it) if my friends don't like it
4.	My shopping depends on the taste and opinion of the people around me
5.	My shopping depends on the material situation of the people around me

**Table 2. Marketing attitudes - internal factors**

6.	I feel comfortable when I buy things
7.	I enjoy in unplanned shopping because of my satisfaction
8.	I usually care whether I have bought what I need as a part of a care of myself
9.	I enjoy building my own image (which is different than the image of others) by shopping
10.	I often buy thing for the people around me to make them happy, but that makes me happy and special too

Descriptive statistic methods were used for data processing and the total results are shown in a Table 4 where the results of the conducted inquiry for all the respondents shown in a statistic series can be seen.

The research was conducted with the help of an inquiry during which Likert's scale was used. The respondents were offered statements marked from 1 to 10, according to the inquiry, while the offered responses according to the Likert's scale were following:

1. I don't agree at all.
2. I don't agree.
3. I partially agree.
4. I agree and
5. I completely agree.

## 3. Results and Discussion

The obtained results are shown in Table 3, where we can see the results of the inquiry of all the respondents. The obtained results can be shown in statistical series presented in Table 3.

In Table 3 we can see the results of the inquiry of all the respondents. The statements are given in the Table 3, that is questions which are shown from 1 to 10, and the answers are shown from 1 to 5.

The first five statements are external factors, while the other five are internal factors that can influence our decision about purchasing something. Thus, the questions are marked from 1 to 10, according to the inquiry, while the offered answers with the help of the Likert's scale are marked from 1 to 5.

For the analysis's needs difficulty coefficients are given to the answers, which means that the values are artificial variables.

The interpretation of this kind of display of statistical series is very important. The numbers in the Table 3 have a certain value and indicators of the detailed statistical display of respondent's responses given in numbers and percent. That means that one statement that is one question can appear 2150 times (10 questions x 215 respondents). We can isolate the first answer in the Table 3 *I don't agree at all* which the respondent used 264 times, which is 12%. This means that this answer appeared 264 times which makes 12% of the total possible answers of the respondents. If we cut the Table 3 vertically and look at the external factors as one group of statements and the internal as another we can see that the internal factors have more answers than the external, that is with the answer 3, 4 and 5, that is with the answer *I partially agree, I agree and I completely agree* answered more times than they did that with the external statements' answers, which acknowledges the hypothesis of this research. Thus, the hypothesis is that the internal factors have bigger influence than the internal on the on consumer's decision about buying something, which is proved in this part.

47% of the respondents answered positively at the first statement, that is question from the external factors, *The purchase of products depends on the amount of money which I have at the moment*, and 27% of the respondents *completely agree*, while the first statement from the internal factors, that is the sixth statement from the Table 3 *I feel comfortable when I buy things*, 38% of the respondents answered that they *agree*, that is 25% of them *agree completely* with the statement.

At the second statement that is the second question from the external factors, *It is important for me what my family will say for the things I buy*, 20% of the respondents gave positive answer that they *agree*, 5% *agree completely*, while at the other

**Table 3. Inquiry results of all the respondents**

QUESTION											
ANSWER	External factors					Internal factors					TOTAL
	1	2	3	4	5	6	7	8	9	10	
1	7	20	70	65	49	4	11	14	15	9	264
	3%	9%	33%	30%	23%	2%	5%	6%	7%	4%	12%
2	9	56	96	96	105	22	27	64	59	15	549
	4%	26%	45%	45%	49%	10%	13%	30%	28%	7%	26%
3	42	85	37	42	41	53	56	70	71	56	553
	19%	40%	17%	20%	19%	25%	26%	33%	33%	26%	26%
4	100	42	9	7	13	82	74	56	50	85	518
	47%	20%	4%	3%	6%	38%	34%	26%	23%	40%	24%
5	57	12	3	5	7	54	47	11	20	50	266
	27%	5%	1%	2%	3%	25%	22%	5%	9%	23%	12%
TOTAL	215	215	215	215	215	215	215	215	215	215	2150
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

statement from the internal factors, that is the seventh statement from the Table 3, *I enjoy in unplanned shopping because of my satisfaction* 34% of the respondents answered that they agree and 22% of them answered that they completely agree.

At the third statement, that is question from the external factors *I will sacrifice the purchase of a product (I will not buy it) if my friends don't like it*, 4% of the respondents answered positively, that is they answered that they agree with the statement, while at the eighth statement from the Table 3 of internal factors, *I usually care whether I have bought what I need as a part of a care of myself*, 26% of the respondents answered that they agree and 5% of them answered that they completely agree with the statement.

At the fourth statement, that is the question from the external factors, *My shopping depends on the taste and opinion of the people around me*, 3% of the respondents gave positive answer, they answered that they agree, 2% answered that they completely agree with the statement, while at the ninth statement from the internal factors, *I enjoy building my own image (which is different than the image of others) by shopping*, 23% of the respondents.

At the fifth statement, that is question from the external factors, *My shopping depends on the material situation of the people around me*, 6% of the respondents gave

positive answer, and 3% of them completely agree with the statement, while at the tenth statement from the internal factors, *I often buy thing for the people around me to make them happy, but that makes me happy and special too*, 40% of the respondents answered that the agree, that is 23% of them answered that they completely agree.

In conclusion we can say that these parameters tell us that most of the time the consumers act according to the psychological factors during their shopping, and less according to the external factors, that is the opinion of their family, friends, financial moment etc. and the personal image and their mood is more important to them. We will especially isolate the importance of the financial, economic factor because it is the most important external factor and it is the most influential on the consumers which is totally logical indicator.

Totally, 36% of the respondents agree, that is completely agree and 26% of the respondents partially agree with the given statements, which means that 62% of the answers that are given for the statements 3, 4 and 5 are the most important for this research.

The next table, Table 4, shows the average value of the answers of the inquired population, the way in which most of the respondents answered the deviation and the difference in answers.

**Table 4. Descriptive measures of the results**

Question	Descriptive measures							
	$\mu$	Mo	Me	$\sigma^2$	$\sigma$	KV	$\Sigma x$	$p(x \geq 3)$
	Arith. mean	Modus	Median	Variance	Standard deviation	Coef. of variation	Standard error	Percentage of participation
1	3,88	4	4	0,06	0,25	6%	0,02	0.93
2	2,86	3	3	0,03	0,18	6%	0,01	0.65
3	1,97	2	2	0,05	0,23	12%	0,02	0.23
4	2,03	2	2	0,05	0,22	11%	0,02	0.25
5	2,18	2	2	0,04	0,21	10%	0,01	0.28
6	3,74	4	4	0,06	0,24	6%	0,02	0.88
7	3,55	4	4	0,05	0,22	6%	0,02	0.82
8	2,93	3	3	0,03	0,18	6%	0,01	0.64
9	3	3	3	0,03	0,18	6%	0,01	0.66
10	3,71	4	4	0,05	0,23	6%	0,02	0.89
<b>TOTAL</b>	2,99	3	3	0,01	0,09	3%	0,03	0.62

The following are parts of the descriptive analysis:

- $\mu$ -The average value of answers the inquired population gave to a certain question; arithmetic mean value of the answer. The average value in the table is around 3, which matches this research and its results, because as we know from statement 3 the results from the answers match, that is 3, 4 and 5;
- Mo-Mode shows in which way most of the respondents answered, and the mean here is 3;
- Me-median shows that both conditions are divided in two equal parts, 50%-50%.

As dispersal measures (variability, prevalence) there are:

- $\sigma^2$  - Variable, average square deviation, and shows the difference between answers. The lower this variable is, the more even the answers are.
- $\sigma$  - The Standard deviation, average deviation, is not quadratic it's linear.
- Kv - Coefficient of variation - through the coefficient of variation deviation i.e. aberration is generally viewed. The less coefficient means lower variability, which means that respondents has less differences in their responses, so responses are more equal. If the coefficient of the variation is 6%, as is the case with some of the statements from the table that means that 6% of the respondents vary and 94% are even. Thus, for this research better result is shown by lower coefficients, which is case in all statements that is questions except in statements 3, 4 and 5 where the variation coefficient is higher.

- $\sigma x$  - standard error is a assessment of value of standard deviation of basic assemblage. It is important for further analysis, and it shows low degree of variability which means justification of the research and sense of the obtained results.
- $p(x \geq 3)$  - part-percent of participation of the respondents who at a certain statement answered with 3 or more;
- $\sigma p$  - standard error of the percent of incidence is 0,033;
- We set a hypothesis (H0) that the percent of incidence of answers with value 3 and more is above 67% (confirmed from two-third majority)

$$H_0: (p \geq 3) \geq 0.67 \quad H_A: (p \geq 3) < 0.67$$

Legend:

$H_0$  - The null hypothesis.

$H_A$  - The alternative hypothesis.

Thus, we begin with the assumption that two-thirds of the respondents will choose the answers 3 and more, that is 3, 4 and 5.

Thus, all the statements except 3, 4 and 5 have a value above 0.67 that is 67%. The statements 3, 4 and 5 are for the following statements: 3. *I will sacrifice the purchase of a product (I will not buy it) if my friends don't like it*, 4. *My shopping depends on the taste and opinion of the people around me*, 5. *My shopping depends on the material situation of the people around me*. The total per



cent of incidence from the table is 0.62 (below 0.67) with the risk of error of 5% ( $H_A$ ).

The two-thirds totally match the statement 3 and more that is two-thirds of the respondents will choose the answers 3, 4 and 5. Here, we can see that the internal factors have bigger influence on the decision about buying something.

The obtained results lead us to the following:

- The average value of the attitudes of the respondents regarding marketing certain attitudes ranged from 1.97 to 3.74; if the scale of statements is rank as follow:
  1. I don't agree at all; includes value 0 - 1; none statement from the survey was found in this range;
  2. I don't agree; includes value 1 - 2, according to the results from the study, average value of questions related to I will sacrifice the purchase of a product (I will not buy it) if my friends don't like and My shopping depends on the taste and opinion of the people around me (values are 1,97; i.e. 2,03 respectively). Of course, it's obvious that average values approach to the ratio 2, which points to conclusion that most of the participant in respect of these statements starts from their own needs, desires or tastes in the realization of purchase, but that opinion of near and distant environment significantly affects the decision. Variability in the above statement is also the largest in the series, as indicated by absolute indicators of variability (variance and standard deviation), and a relative indicator of the coefficient of variation that emphasizes that in respect of those statements 12%, i.e. 11% of series varies while the rest (88% and 89 %) is stationary;
  3. I partially agree; includes values 2-3, and average values regarding to It is important for me what my family will say for the things I buy; My shopping depends on the taste and opinion of the people around me; I usually care whether I have bought what I need as a part of a care of myself; I enjoy building my own image (which is different than the image of others) by shopping (obtained values are 2,86; 2,18; 2,93 i 3). Here it can be concluded that the impact of those factors on the decision to purchase shows a significant intensity;
  4. I agree; includes values 3 - 4, and average values related to The purchase of products depends on the amount of money which I have at the moment, I feel comfortable when I buy things; I enjoy in unplanned shopping because of my satisfaction, and I often buy thing for the people around me to make them happy, but that makes me happy and special too (obtained values are 3,88; 3,74; 3,55 and 3,71). Here we see most of the statements relating to internal factors, where it exerts the

most influence factors in the study (empirical series covered by the study), where the variability is significantly lower than for statements with a lower intensity of impact, where the variability is 6% compared to those of 12 and 11%.

5. I completely agree; includes values 4 - 5; none statement from the survey was found in this range.

The assumption that empirical schedule has the qualities of a normal schedule is confirmed on the basis of descriptive measures, which can be inferred by comparing the arithmetic mean values of the responses to individual questions as well as the results of the survey as a whole (values of the means, modes and medians had no significant differences).

It can be concluded that the assumption that the inner (internal) factors have a greater impact in relation to the external, faces confirmation, because the average value of external statements in rank of "I partially agree" (2.89); while the average value of the internal argument in the range "I agree" (3.41), indicating that the variability in the first case is higher (26%) than in the other case (11%), which is a reasonable inference that the dispersion (dispersion difference, waste) is larger in terms of external positions in relation to the internal.

From this part can also be seen that the greater number of statements, total 8 statements found a place in the range of over 2 to 4, which corresponding to the nature of the response.

#### 4. Conclusions

- Analysis of consumer behavior and their bias to purchase is not at all simple process. Consumers are not the same in their needs, requirements and wishes and their behavior in purchase depends of that. This is especially expressed in today's modern conditions of privilege when the consumer has become more demanding and more aware of their needs. For this reason, consumers have a central place in the modern market system and they are the ones for which organizations fighting with each other. In this struggle great importance for the organizations has the marketing processes and marketing research. With certain marketing instruments we can influence on consumer behavior and his bias to consumption.
- This study has shown that internal factors or psychological factors have a greater impact on consumers' decisions about purchasing regarding to external factors such as the impact of economic factors, geographical demographics, etc.
- So, the assumption that internal factors have some greater influence than external on consumers' decision about purchase has met a confirmation. This is obvious

in results of the study, Table 3. Inquiry results of all respondents, because there is higher percent in answers for internal factors rather than external, and that answers 3, 4 and 5. This means that the higher number of respondents to the statements I partially agree, I agree and I completely agree in higher percentage responded with the internal factors in relation to external factors. Likewise, the total amount, 36% of respondents Agree or Completely agree, and 26% of respondents Partially agree with the above statements overall, which amounts to 62% of the responses which were recorded for answers 3, 4 and 5, which are most important for this study. It can be concluded that these parameters indicate that consumers are largely guided by psychological factors when purchasing a somewhat lesser extent by external factors, i.e. the opinions of family, friends, financial torque, etc., and that their personal image, their mood and so on is more important for them. The importance of the financial, economic factor in particular stands out because he was the strongest in the context of external factors and there is, of course, the biggest impact on consumers.

- With Descriptive measures of the results from survey can be seen that the respondents in regard to answers are more balanced in terms of internal rather than external attitudes. For internal statements, responses were with higher coefficient indicating mode, closing 3 and above, that is that the way that fits the larger number of respondents is with the higher coefficient than in the first five statements made by external nature. Also, the percentage of respondents who answered 3 or more, is higher in all statements of internal factors in relation to external factors.

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