

## The effect of the taste sensations upon the perceived consumer value of a consumer, non-food related trade offer

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**Abstract.** The Article presents an innovative tool for marketing communications at the points of sale. A taste sensation was picked as a channel to transmit a marketing message at the time of choosing and testing of consumer, non-food related goods. The focus of this research became a non-food related item. Whereby two consumer behaviour parameters were measured, namely the emotional state of the respondent as well as the retail price of the tested item acceptable for him. We arrived at the conclusion that the use of the sensory channel under scrutiny as a channel for marketing communications at the points of sale is viable and help to modify the perceived consumer value of the trade offer through a targeted alteration of the emotional perception of the clients.

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### Introduction

The ever increasing number of consumer items on offer in the modern retail outlets goes hand in hand with very obscure differentiation in their consumer properties. This has resulted in an intensified competition between the manufacturers of goods and the goods suppliers at the points of sale.

As the result of this crisis the loyalty of a consumer to a retailer and to a trade mark became faecal. The use of the traditional trading technological range of tools does not reach its target to off-set these negative effects for those who are involved in the trading cycle.

While having at their disposal no effective techniques to ensure a competitive edge apart from price-related methods, manufacturers and suppliers of the consumer goods invariably attempt to achieve high trade volumes through lowering the price. This method has become ubiquitous both in Russia and abroad and led to decreased economic efficiency of those involved in trade and in its turn sent the retail sector into the vicious circle of a systemic crisis.

And it is not so much the Shumpeter "Storm of Innovations" [1] that can put an end to the current and future economic nightmare, rather it will have to be an tsunami of innovations that will pave the way out of it. And it is the procedural and organizational aspects that this innovation rather than the goods aspect of it that are to be tackled.

The time for new technological environment, innovative break-through in using advanced marketing technologies in communicating with consumers has arrived.

In order to stand out amongst many similar items (substitutes), both the manufacturers and retailers have to position their goods based upon the unique range of emotions and sensations, which reach a consumer through a trade offer giving them pleasurable moments and immersing them into legends. The innovation can be charged with the task of facilitating sales through targeting emotional feedback of a consumer by impacting on their sensory perceptions [2].

In order to achieve this consumer perception of a trade offer at points of sale it is insufficient to use the traditional channels of marketing communications. Let us remind you that at present the main source of information about a trade offer is visual symbols (90%) and 8% of the information engages hearing, whereas tactile, olfactive and taste sensors involve just 2% of the total volume of the information received [3] by the consumers. The authors of this research forecast that it is within this 2% of the information that the successful interaction with the consumers at points of sale rests.

The study that has been conducted is based upon well-known research of such authors as R. Reeves, 1961 [4], P. Kotler, 1973 [5], A. Ries & J. Trout, 1985 [6], R.F. Lauterborn, 1990 [7], B.J. Pine & J.H. Gilmore, 1999 [8], E. Ettenberg, 2001 [9] et al.

The research at hand is aimed at studying the effects of the taste channel in obtaining information about a trade offer at points of sale upon the ability of a consumer to generate an emotional feedback. The study was conducted at the School of "Multi-Sensory

Marketing Communications at Points of Sale". It was established earlier that there is a possibility to influence the consumer behaviour through the impact on the sensory organs with olfactive marketing communications [3] as well as through involvement in the process of selection of goods [10].

### Materials and methods

The circumstances cited above led us to believe that it is necessary and practical to conduct research into the nature of the consumer behaviour shift due to targeted change in taste sensations at points of sale of consumer items. It was conjectured that the results will lay the foundation for developing a range of innovative communication means capable to effectively influence the consumer behaviour in points of sale of such goods. Having understood the tools of such an impact the retailers will be equipped to influence the consumer behaviour in the future to the advantage on both sides involved in the purchase/sale. The end result of it will be an increased degree of consumer involvement into the purchase process as well as the boost of consumer value in the perceived pricing of an item.

The research proceeded from the hypothesis that the consumer perception of a trade offer value of non-food items can be corrected via targeted modelling of taste sensations in the respondents, i.e. the impact of various taste sensations of the participants of the discussion would have some effect over their emotional state, which in turn will change their behaviour as consumers.

The sweet taste was achieved through treating respondents with chocolates; sour – through chewing pastilles with sharp sour taste; salty – salted roasted peanuts; bitter – bitter almonds. The buyers browsing in the shop were invited to familiarize themselves with a new trade offer and were offered some treats before testing a sample. The treats were offered without acknowledging its hidden purpose (critical request). All types of treats were served in the same shallow matt glass vessels. The total weight of the treats was circa 100 gram in all the experiments.

When respondents declined treats their answers were tagged as control group, i.e. a group which would assess the value of a trade offer in absence of any taste experience.

The research focused on sampling an item (Hall-Test) and personal survey in shopping malls (Personal Survey) [11] as methods of studying the consumer behaviour at points of sale. The number of respondents was 200 people in each group. A solid consecutive survey of visitors to the woman's clothing store was the type of surveying involved. The object of the sampling was a woman's classical

suit made in Turkey, black, size 44, fabric 95% cotton and 5% elastane retailing for 6600 roubles (\$220).

The correspondent asked respondents questions to determine their emotions and the answers were written down in the individual survey sheets. These answers were of both quantitative and qualitative nature. The quantitative evaluation by the participants was represented by the acceptable by them price range perceived at the time of consuming treats of a particular taste, and qualitative evaluation came down to describing emotional parameters of a trade offer in question, which arise while having the treats.

The responses of each participant were classified after the testing according to the type of the emotional state of the respondent based on the scale we referred to earlier [3].

The results of the experiments were later statistically processed and underwent correlational analysis [11].

### Main part

In summary of the information on the influence of taste sensation over the formation of emotional states in a consumer (figures 1-2), we can conclude that our tentative hypothesis was correct.

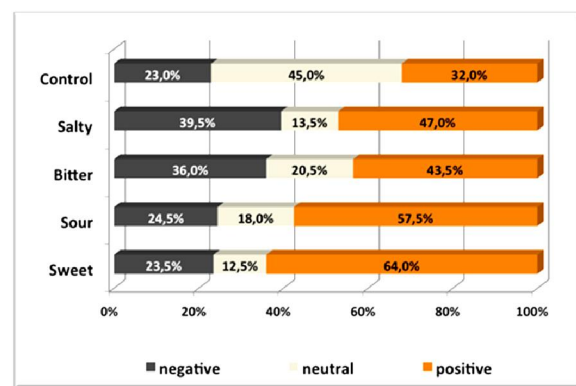


Figure 1 - Formation of the emotional state

So while discussing the value of a trade offer while experiencing sweet taste 64% of the respondents formed positive emotions; 23.5% experienced negative emotions and the remaining 12.5% remained neutral. 59.5% of respondents were prepared to pay a high price and 25.5% – lower price. The rest of the group assessed the sampled item at the average market price. The quantitative evaluation of the respondents of the trade offer value while experiencing this taste came up to +50% ÷ +75% in comparison with the control group.

The sour taste also actively forms positive emotions (in 57.5% of respondents); whereas 24.5%

of respondents experienced negative emotional feedback and the rest manifested neutral emotional state. 51.5% of the respondents were prepared to pay high price for the tested item and 19.5% were prepared to pay a lower price. The quantitative assessment by the respondents of the trade offer value offer with the presence of this taste amounted to +20% ÷ +600% as compared with the control group.

The experience of the bitter taste triggered positive emotions in 43.5% and negative in 36% and the rest remained emotionally neutral. 47% of the respondents were prepared to pay high price for the item and 18% a lower price. The quantitative evaluation of the trade offer value with in presence of this taste came to -28% ÷ +570% in comparison with the control group.

The salty taste formed positive emotions in 40.5% of the respondents and negative in 39.5% where the rest were neutral. 40.5% of the respondents were prepared to pay a high price for the item whereas 38% a lower price. The quantitative evaluation by the respondents of the trade offer value experiencing this taste came up to -3% ÷ +90% as compared with the control group.

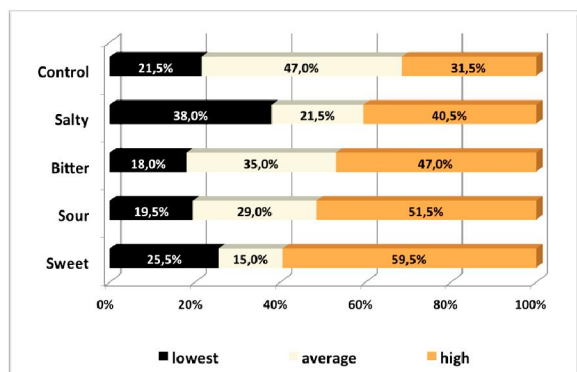


Figure 2 - Perceived value

In the control group of the respondents, who have not been treated with different treats during the sampling, 45% manifested neutral emotional state and 32% positive, 23% negative. These values were accepted as a base line in evaluating emotional change while targeting the change in the taste sensation at product sampling.

The channelled change in the taste sensation of the targeted consumer audience (women of all age groups) at the time of sampling a non-food related item allows to verifiably influence the emotional state of the respondents. In all surveyed groups it decreased the share of emotionally neutral respondents in comparison with the control group who did not receive treats at the site of sampling a product. The degree of influence of a type of taste

over a number of respondents, who formed a positive emotional feed-back under the influence of treats, and expressed by the increased indicator of this number as compared with the control group, can be presented by a line with the value of this indicator diminishing: sweet (+32%), tart (+25.5%), salty (+15%), bitter (+11.5%). Let us point out that the nature of the above changes coincides with sweet and sour tastes and bitter and salty tastes.

In the first pair of tastes (sweet and sour) the increase in the share of respondents who formed a positive emotion happens while the share with the negative emotion remains at the level of the control group.

In the other pair (salty and bitter) of tastes the change in the number of the respondents who formed positive emotion happens alongside with the equal in value (+16.5 and 13% respectively) increase in the number of respondents who developed negative emotional state having had the treats. Based on this and while choosing bitter and salty treats at the points of sale of non-food related items for female target market, it is important to take into account the correlation of the emotional state to the category of goods.

31.5% of the respondents in the control group were prepared to pay a high price for the item and 21.5% – lower price. The majority of the respondents in the control group (47%) were willing to purchase the product at an average market price. These values were also accepted as the base line in the evaluation of the influence of the taste type at the time of sampling a product over its consumer value.

We would like to note that treats of any type of taste have an effect upon the consumer value of the sampled product and increase its retail price by 8.5% ÷ 27.5% than that of the control group. Evidently the mere fact that the customers are being offered treats in the shops is being seen as a friendly gesture on the part of the administration (retailer) and triggers positive emotions. Taking into account this factor we can affirm that the taste sensations of different type have different influence upon the consumer value of a sampled goods, assessed with the criteria of an acceptable level of its retail price. According to this criteria the tastes in question can be aligned in a diminutive sequence according to the decrease in the influence over the acceptable level of the retail price of the surveyed non-food related goods for the targeted consumer audience (women of all age groups): sweet (+27.5%), sour (+19.5%), bitter (+15%), salty (+8.5%).

Table 1 represents correlation between the emotional state and the level of acceptable price within the framework of this research.

**Table 1. The effects of taste sensations when selecting a non-food related item and its perceived value**

| Data     | Lowest | Average | High  |
|----------|--------|---------|-------|
| Negative | 0.52   | -0.18   | -0.19 |
| Neutral  | -0.38  | 0.91    | -0.77 |
| Positive | 0.08   | -0.87   | 0.94  |

Having analysed the data above we can note that the correlation ratio has a value close to +1 (strong directly proportional correlation) for the following argument pair (type of emotional state) – function (level of retail price of the surveyed item perceived by the respondent as acceptable): Positive – Average price ( $R^2 = +0.94$ ); Neutral – Average price ( $R^2 = +0.91$ ). Average degree of directly proportionate correlation was seen in the pair Negative Emotional State – Low Price ( $R^2 = +0.52$ ).

The value of the correlation ratio is close to -1 (strong inversely proportional correlation) for the following argument pair (type of emotional state) – function (level of retail price of the surveyed goods perceived by the respondent as acceptable); Positive – Average price ( $R^2 = -0.87$ ); Neutral – High price ( $R^2 = -0.77$ ). The negative sign with the correlation ratio in those pairs means that an inverse value of an acceptable level of retail price is being achieved in those emotional states.

### Conclusion

To summarize the results of the research into the influence of taste sensations over the emotional states of the consumers, we can conclude that the tentative hypothesis was confirmed to full extent, namely it is possible to modify the price perception of a trade offer through affecting respondents' emotional state, if the taste receptors of the buyers are engaged as a channel of marketing communications.

Also it has become obvious that the retailers, who succeed in implementing innovative methods of communications with the clients at points of sale through taste communications, will have a powerful competitive edge reinforcing at the same time the loyalty of their consumers.

The authors are well aware that further research into taste sensory channels of targeted marketing communications as well as their

integration as a multi-sensory communication technique at points of sale will be required.

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