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CONSUMER PERCEPTION OF FOOD-TO-GO PRODUCTS

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Abstract

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This paper is focused on the perception of Czech consumers of food-to-go products. The popularity and consumption of these products are growing around the Europe except the Czech Republic. The data in this article were collected through focus groups (n = 32), eye-tracking and in-depth interviews (n = 54). Focus groups and in-depth interviews identified that food-to-go category is purchased only occasional and in case of necessity. The main reason is culture and preferences of Czech consumers. The eye-tracking data showed differences in consumer's attention by observing different layouts from point of purchase. The research was realized during November 2016 in the Eye-tracking Laboratory at the Mendel University in Brno.

Keywords: food-to-go, eye-tracking, consumer perception, point of purchase

INTRODUCTION

The popularity of food-to-go products is growing around the world, especially in western countries and regions. But it was not so much applied in the Czech Republic and other countries in the centre of Europe, tradition of this category is not so common there. The food-to-go category includes food products as baguettes, sandwiches, wraps, small drinks (mostly the drinks with content about 0.5l), fresh salads and small fruit boxes, prepared food boxes, snack, small chips, etc. Types of products in this category are still growing based on customer preferences.

According to IGD (2016) food-to-go market has a big potential, especially in the UK. Till 2021 it is predicted the burgeoning food-to-go market will be worth £21.7bn. The value of this market was in the UK £16.1bn in 2016. Quick service restaurants (the value was £5bn) were the most preferred places for purchase and stores as supermarkets and hypermarkets were the last choice as place for purchase (the value was £1.2bn). On the contrary, supermarkets are the most popular place to buy a drink on-the-go and breakfast-on-the-go. The most preferred types of food-to-go are sandwiches and wraps. Lunch is the main occasion to buy food-to-go products.

The purchase occasion is going to change abroad. There is going to be more custom purchase than impulsive purchase. But generally, the food-to-go products are still marked as impulsive purchase. This type of purchase means that customers do their decision directly in the store. According to the study by POPAI (2010), 76% of consumers make their buying decisions in the store and it seems that the attention of sales people should be focused particularly to in-store communication.

There are visible differences in consumer attention by gender in some food categories. Men concentrate more attention on the centre of the shelving unit, while women focus on the shelving unit as a whole in category of confectionery. Both gender pay the most attention to their preferred brands. Also creatively designed and distinct packaging placed in shelf could lead to purchase. This type of package is preferred especially if there are no special offers in category and it can take the consumer attention also in case the product is outside of the preferred brand (Drexler, Souček, 2016).

According to Cheverton (2004) the consumer's attention is impacted by effective packaging design.

This results in a longer time spent at the shelf and potentially results in a sale.

The eye-tracking study of dairy products made by Souček *et al.* (2015) showed that title name and the brand are parts of products packages which takes the highest attention. But the crucial nutrition parameter of a product is a content of fat. This information is significant for the consumer's attention.

The package is very important, especially when consumers think about healthiness of products. According to Ježovičová *et al.* (2016), producers must ensure that texts on packages of healthy products are easy to read and adjust the product design and layout of packaging material accordingly.

Chandon *et al.* (2009) states that basic factors influencing attention of consumers in shop are a number of facings of brand, a vertical position in the display, a horizontal position on the shelf and a price of goods. These factors of in-store communication are necessary for activating of memories of out-store communication. Chandon also states that products located vertically as well as horizontally in the middle gain the greatest attention.

In store after getting a customer closer to a shelf, there are further distinguished four vertical shelf zones which influence customer's attention. They can be a key factor in customers' decision-making (Ebster, Garaus, 2011).

Stretch level – above 6 ft., represents one of the least valuable zones. Shelves in this zone usually gain relatively small customers' attention. Some modern shops refrain from this zone, nevertheless, it is still largely used. On shorter shelves, there are products of lighter weight located (Ebster, Garaus, 2011).

Eye level – 4–5 ft., represents a zone with the highest customers' attention. It is a place where products with the highest profit should be placed. Products in this zone can gain by 35% better attention of customers (Ebster, Garaus, 2011).

Touch level – 3–4 ft. represents an area of a central part of consumer's body. It is a zone, which gains higher attention than the stretch and stoop level, however, less than the eye-level. Also in this zone there are located products with higher profit (Ebster, Garaus, 2011).

Stoop level – below 3 ft., represent a non-popular area, which does not gain too much of customers' attention. Consumers do not like to bend to this zone. Usually, products with low profit or heavy products are placed here (Ebster, Garaus, 2011).

The stoop level is in this study represented by box shelf, base shelf and 1st shelf. The touch level is 2nd shelf from the ground and eye-level is represented by 3rd and 4th shelf. The top shelves – 5th and 6th shelf – are in the vertical category of stretch level.

MATERIALS AND METHODS

Outputs of this paper are based on two researches – eye-tracking experiment and focus groups sessions. Both researches were conducted during November 2016 at the Eye-tracking laboratory of the Department of Marketing and Trade, Faculty of Business and Economics, Mendel University in Brno. Focus groups were based on prepared research questions together with pictures of different in-store layouts and solution of food-to-go category were shown to participants. The goal of research questions were to evaluate the approach, purchase habits and perception of food-to-go products. Participants' perception of different types of in-store arrangement of food-to-go products was discussed through pictures. Four sessions of focus groups were realized. The interviews within focus group sessions were recorded with handy recorder. The time of each session was 90 minute.

Within the eye-tracking experiment 19 store layouts were tested by eye-tracking to identify differences in consumers' attention by purchasing food-to-go. The data were collected by remote eye-tracking device SMI Red 250. For simulation of a real customer environment each stimulus was (a shelf with products) projected by a projector to the wall. The participants stayed in 3 meters distance from the wall and 0.5 m from the eye-tracking device. All participants were calibrated by 9 automatic calibration points and validated by 4 validation points. After the calibration and validation the participants answered questions regarding their identification. Pictures of shelves from different European stores were used as stimuli. Participants were asked to look at a picture of shelf and try to behave like in a real situation. After eye-tracking session in-depth interview was conducted with each participant. The goal of interviews was to identify opinions and perception about food-to-go products.

Analysis of attention was realized through the program SMI BeGaze. For every stimulus there were specified AOI (areas of interest) as individual shelves (layers) of every module. The monitored metric for each area of interest was in particular the time spent observing the AOI, referred to as Dwell Time, measured in milliseconds. For the analysis of the data obtained, the statistical characteristics were supplemented with the analysis of variance – ANOVA. The data was analysed using IBM SPSS software.

There were 32 participants (50% of them were female) of focus groups and 54 participants (88.88% of them were female) of eye-tracking and in-depth interviews. All participants were chosen randomly. Students of the Faculty of Business and Economics in age from 21 to 23 were used as participants for both research. The main condition of participation within the research was the active role of respondent in decision making process when purchasing food.

RESULTS

Main purpose of focus groups was description of consumer's perception of food-to-go category. Results indicate very similar approach to purchase this category by almost all respondents. 29 out of 32 respondents perceive food-to-go products as unhealthy food that is purchased only in case of necessity. The case of necessity means that products are quick snack or lunch to hinder feelings of hunger when there is no other option or time to buy something better. Most of them also consider the price of products to be very high. Last 3 participant consider food-to-go products to be a "normal" food.

The most preferred places for purchase are petrol filling stations – it is the only place mentioned by all respondents as a place where it is possible to buy this products. Canteens were mentioned as other preferred point of purchase. Student's canteens by schools and universities are point of purchase where participants consider the price to be acceptable. Majority of respondents do not mention that it is possible to buy these products also in case of hypermarkets and supermarkets.

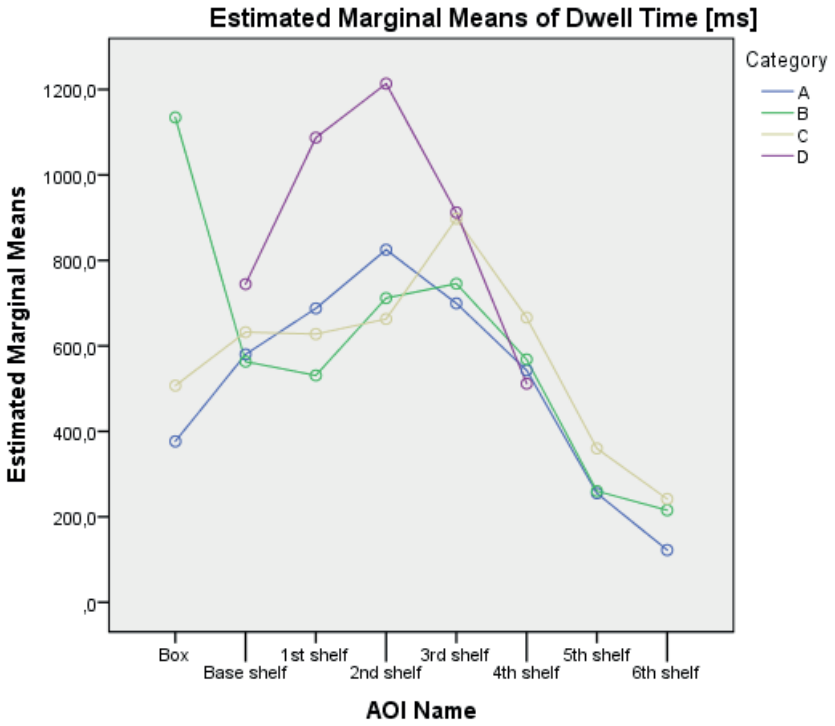
Regarding the preferences of food-to-go products, baguettes were chosen as the most preferred types of packed foods. 30 participants prefer this type of food because they consider baguettes to be bigger and better choice than other options. They do not care about content and just take what is available or what seems the freshest. Last 2 respondents don't care about types of food-to-go products.

Sandwiches as other type of food-to-go products are mentioned by respondents as not so much interesting. In comparison with baguettes they mention that baguettes are bigger and more vivid. Mostly, respondents are not interested in sandwiches. But in case of better layout (layout when sandwiches are all merchandised in front position and arranged) respondents are more interested in this type of food-to-go product. In this case, 26 respondents evaluate this layout as better solution and states that such arrangement influences their attention and also interest in this type of product. Also during in-depth interview 3 of participants mentioned that this layout influences their taste on sandwich.

Within the second research based on eye-tracking and in-depth interviews participants mostly choose the fresh juices as the best choice from this category. The second choice would be again baguettes.

Participants also claimed that position of products in shelf doesn't influence their attention. But all layout of shelf could influence their readiness for purchase.

Only 8 participants of focus groups were able to remember brands of food-to-go products. The first brand in top of mind of participants was Crocodille – this brand (food-to-go producer) is the most available brand (the biggest) in the Czech Republic. The second brand that participants were connecting with food-to-go products was Hame. Data indicate that the brand is not important to consumer's decision about food-to-go products. Also the brand is not important to their attention.



1: *Dwell time means categorised to shelf level and product category*

Within the eye-tracking investigation, the shelf levels were set as area of interest AOI. In stimuli there were 8 vertical levels: *box, base shelf, 1st shelf, 2nd shelf, 3rd shelf, 4th shelf, 5th shelf, 6th shelf*. There were used images of shelves with different shelf levels. Stimuli used in this experiment were also divided into four categories according to the products showed in the shelves: A – sandwiches, B – mix (the mix of products – include mostly baguettes, some sandwiches, wraps or some different types of products especially in stretch and stoop levels), C – fresh (fresh salads, fruit and vegetable prepacked as food-to-go products), D – drinks (especially drinks in 0.5l bottles).

For analysis of effect of the shelf level and the category of products visualized within the stimuli, the two-way analysis of variance was used. The dependent variable was dwell time of AOI and independent variables were the shelf level and product category. Both factors as well as their combination generates $p = 0.000$, therefore at the significance level $\alpha = 0.05$ there is significant effect of the shelf level and the product category on the observation time of the shelf level. Means of dwell time of observed shelves divided into groups are shown in the Fig. 1.

Dwell time data indicate very high attention in mix category (category B in Fig. 1) at the box level of shelf. The reason is that boxes are not typical layouts in the Czech Republic. Participants were very interested in this products because mostly they have never seen the combination of shelf with baguettes, sandwiches, wraps, etc. and boxes with crisps and pop-corns. Fig. 2 shows heat map of stimulus number 8 indicating the importance of boxes for participants' attention.

Except the box by mix category, all data by each categories indicate growing attention with growing shelf level. The top of this attention is in touch or eye-level which are based in second, third or fourth shelf level. From this point the respondents' attention falls down.

Interesting observation is that the highest attention gained drink category. This result could be influenced by the fact, that products used in this category are more known than other food-to-go products (especially brands such as Coca-Cola, Pepsi, etc. which were included).

Additionally, to check the effect of the shelf level on the dwell time of its observation, the one-way ANOV A was conducted for each stimulus. Sig. value as well as average dwell times of each shelf level visualized in stimuli are shown in Tab. I.

From the Tab. I it is obvious, that with the significance level $\alpha = 0.05$ in almost all cases there is significant effect of the shelf level on the time of its observation. Regarding the average observation time of each AOI, the 2nd and the 3rd shelf were the most observed areas both in case of five stimuli. In the case of four stimuli the most observed was

2: *Heat map analysis of 8th stimulus*

I: *Average dwell times of shelf levels per stimulus*

Stim.	Box [ms]	Base Shelf [ms]	1st shelf [ms]	2nd shelf [ms]	3rd shelf [ms]	4th shelf [ms]	5th shelf [ms]	6th shelf [ms]	ANOVA Sig.
1	**1116.09**	386.80	434.37	846.37	916.65	672.46	182.13	650.69	0.000
2	–	1010.43	**1267.16**	1181.25	875.27	442.59	–	–	0.007
3	–	678.86	767.13	988.89	951.24	**1055.07**	354.95	–	0.043
4	–	786.28	691.89	701.65	**855.17**	408.43	203.89	–	0.000
5	–	584.06	511.77	**730.51**	661.14	341.07	161.73	–	0.000
6	–	602.75	**757.24**	609.70	615.75	610.95	164.98	–	0.001
7	–	878.66	569.08	**1028.03**	1026.94	659.14	361.63	–	0.003
8	**1152.97**	450.43	433.45	701.62	494.95	413.99	168.99	–	0.000
9	–	620.24	684.63	**816.70**	750.29	362.54	129.76	–	0.000
10	–	651.57	536.50	747.49	**868.43**	661.60	295.83	–	0.006
11	506.99	658.37	642.61	513.62	**817.80**	345.71	323.62	241.61	0.000
12	–	536.44	459.94	614.71	**992.63**	873.87	432.91	–	**0.109**
13	–	779.32	454.91	615.75	621.28	607.49	278.37	–	0.021
14	–	267.08	480.25	552.55	711.99	**851.46**	561.69	215.49	0.000
15	–	512.86	781.48	**1266.06**	907.85	594.57	–	–	0.001
16	376.60	354.67	442.43	**624.85**	409.35	490.76	290.88	122.19	0.001
17	–	710.43	**1213.27**	1193.47	954.19	497.72	–	–	0.002
18	–	539.59	**1496.85**	1302.96	715.82	–	–	–	0.000
19	–	521.52	348.95	654.54	767.90	576.19	301.41	–	0.002

the 1st shelf and in two stimuli the box shelf and the 4th shelf. The base shelf was the most observed AOI within one stimulus. Therefore the attention of our respondents was mainly focused to the central parts of observed shelves.

Just in one case (stimulus 12) the significance level was higher than α. Within this stimulus there were promoted fresh salads from abroad and this products were packed in square or round packages and precisely merchandised in front positions. The shape of packages was commented by participants as very interesting.

Eye-tracking data did not show visible differences by gender in consumer attention by observing products and shelves.

CONCLUSION

According to results it is possible to say that food-to-go category is in the Czech Republic still small category which customers purchase only impulsively and in case of hunger. Mostly they consider it to be more expensive choice of food for lunch or snack. Based on results of interviews and focus groups it is possible to claim that products from this category are mostly purchased within an impulsive buy by Czech customers.

Similarly as Chandon *et al.* (2009) this research confirms the importance of vertical merchandising for customer's attention in this category and significant effect of the shelf level. Eye-level and touch levels are the most important for customers attention, which is also mentioned by Ebster and Garaus, (2011). But customer's attention can also be attracted by something unusual, such as boxes with crisps and pop-corns. Therefore it is recommend to Czech retailers who want to support food-to-go category, to use the box with unusual products as a good choice which can attract customer's attention.

The category of drinks gained the highest attention. This category is well known by Czech customers especially thanks to the brands which were used in this experiment. Shelves and shelf levels with products which customers prefer – in this case baguettes – gained also high attention.

The research shows that package is important for customer attention. But the information shown on the packages are not so important for consumers as in different product categories as mentioned Ježovičová *et al.* (2016) and Souček *et al.* (2015). The Czech customers mostly think that food-to-go products are unhealthy, so they are not looking for more details. They have also troubles with recognizing brands of these products.

Layouts which are positively evaluated by customers are well stocked and clearly arranged. In some cases the layout can also influence customers purchase habits – e.g. in case of sandwiches, which are less popular than baguettes in the Czech Republic, respondents claim that they started to think about

purchasing of such product. Higher preference for baguettes over sandwiches could be influenced by the amount of content – Czech consumers think, that sandwiches have smaller content than baguettes. In case of all food-to-go products, the big problem is the price. Participants consider the price to be very high, therefore this is one of the reasons why they purchase this products only occasionally. The most preferred points for purchase are petrol filling stations and canteens.

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