Buying behaviour of households in the Czech Republic

Nákupní chování domácností v České republice

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Abstract: The paper analyses results of an inquiry performed in the Czech Republic on the turn of 2005/2006. The objective was to discover how households buy foodstuffs, clothing, shoes, and home appliances and which factors influence this behaviour. The obtained results showed that quality was the most important factor when buying foodstuffs and home appliances. When buying clothing and shoes, above all the product properties (i.e. *de facto* also its quality) were preferred. Price was mentioned less frequently as a factor influencing the buying behaviour. Although it was not mentioned as a priority, there were also some differences, which depended mainly on the incomes of individual households. In contrast to foodstuffs, which were preferably purchased in discount shops, supermarkets, hypermarkets, and shopping centres, clothes, shoes and home appliances were purchased mostly in specialised outlets. As the purchase of home appliances is more complicated, the majority (85%) of customers looked for information in different sources of data, especially in different catalogues.

Key words: buying behaviour, foodstuffs, clothing, shoes, home appliances

Abstrakt: Příspěvek analyzuje výsledky celostátního šetření, které se uskutečnilo na přelomu let 2005/2006. Cílem této analýzy bylo zjistit, jak české domácnosti nakupují potraviny, oděvy, obuv a vybavení domácností a které faktory jejich chování ovlivňují. Získané výsledky naznačují, že při nákupu potravin a vybavení domácnosti má pro zákazníky největším význam kvalita. V případě nákupu oděvů a obuvi to jsou hlavně vlastnosti produktu, což je de facto obdoba kvality. Podobně jako u potravin, je i u oděvů, obuvi a vybavení domácnosti uváděna cena méně často jako faktor, který by silně ovlivňoval nákupní chování. I když cena nemá prioritní význam, existují v závislosti na konkrétní příjmové situaci jednotlivých domácností u tohoto faktoru určité odlišnosti. Oproti nákupu potravin, při němž byly upřednostňovány diskontní prodejny, supermarkety, hypermarkety a nákupní centra, byl v případě nákupu oděvů, obuvi a vybavení domácnosti preferován nákup ve specializovaných prodejnách. Vzhledem k tomu, že nákup vybavení domácnosti představuje složitější způsob rozhodování, vyhledávala většina kupujících (85 %) informace předem, a to především v katalozích.

Klíčová slova: nákupní chování, potraviny, oděvy, obuv, domácí spotřebiče

The transition of Czech national economy from the system of centralised planning to a free market economy showed a marked impact also on the Czech households. The incoming of foreign supermarket chains, a widening of assortment of consumer goods and also an increase in the purchasing power of people resulted in marked and rapid changes in the buying behaviour of the Czech people. Referring to results of our earlier marketing research (Foret 2005; Foret, Procházka 2006), a nationwide inquiry was performed in the Czech Republic on the turn of years 2005/2006. The objective of this research was to find out and analyse which factors (and how) influence Czech households when buying foodstuffs, clothing, shoes and home appliances (i.e. furniture, brown goods, and white goods including various accessories) (Nagyová et al. 2006).

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MATERIAL AND METHODS

The nation-wide inquiry was performed on the turn of years 2005/2006 using a survey method of personal interviews. The questionnaire was distributed among and answered by altogether 1 070 households in the whole territory of the Czech Republic. When trying to evaluate the strength of relationships existing between the individual pairs of variables, we decided to use the Kendall coefficient tau and the Cramer's coefficient V because of their simplicity and practical and pedagogical advantages. Both these coefficients were used to measure the degree of correspondence between two rankings and assessing the significance of this correspondence.

Factors influencing the buying behaviour and decision-making of Czech households were analysed by these statistical coefficients and all values were significant at the level of 95% and more (for details see Řehák, Řeháková 1986).

RESULTS AND DISCUSSION

Within the framework of this marketing research, we tried to describe the process of buying foodstuffs, clothing, shoes and home appliances (i.e. furniture, brown goods, and white goods including various accessories). The obtained results and the most interesting findings are presented in the following text.

Purchase of foodstuffs

At first we tried to ascertain, *if and where the investigated households look for information showing an influence on their decision-making before the purchase of foodstuffs*. A general survey of their answers is presented in Table 1.

Table 1. The most frequent sources of information about foodstuffs

Source of information	Percentages
Not looking for information	57
Catalogues	20
References provided by other consumers	10
TV and radio advertising campaigns	7
Journals and newspapers	5
Internet	1
Total	100

It results from Table 1 that more than one half of Czech households did not look for any information prior to the purchase of foodstuffs. In case that they wanted to be informed prior to the purchase, different catalogues were mentioned as the most frequent source of information (20%). Other data sources were less frequent and their sequence was as follows: personal references of consumers (10%), TV and radio advertising campaigns (7%) and professional journals and newspapers (5%). Internet as a source of information about foodstuffs was quite negligible (> 1%).

The approach of households was practically not influenced by their net annual income and the behaviour of households with low (< 200 thousand CZK) and high (> 400 thousand CZK) was very similar. The value of Cramer's coefficient of association was only 0.08.

As far as the *place of food purchasing* was concerned (Table 2), the most frequent outlets were discount shops, supermarkets, shopping centres, and hypermarkets (for more than 2/3 of households). The remaining third purchased foodstuffs in small corner shops and self-services. Markets, farm shops and specialised shops were mentioned as the place of food purchase only exceptionally.

It was surprising that the place of purchase was only a little associated with the annual income of households (Cramer's coefficient V = 0. 22). Besides, this relationship was quite opposite to our expectations and it can be said that *the higher the income, the more frequent purchasing of foodstuffs in discount shops, supermarkets, shopping centres, and hypermarkets.* Only 47% of households with the lowest annual income (< 200 thousand CZK) used these outlets while 75% of households with the highest annual income (> 400 thousand CZK) mentioned them as the most frequent place of food purchase. This trend was observed also in income categories of 200–300 thousand and 300–400 thousand CZK (59% and even 73%, respectively). This indicated that *above all households with a higher standard of living used* discount shops,

Table 2. Place of food purchase

Place	Percentages
Market places, farm shops	1
Discount shops, supermarkets, shopping centres and hypermarkets	65
Small corner shops, self-services	33
Specialized shops	1
Total	100

supermarkets, shopping centres, and hypermarkets, undoubtedly due to their good accessibility because they are mostly situated in towns and people can get there relatively easily.

Further we tried to define *how much was the purchase of foodstuffs influenced* by the following ten factors. Basing on the importance of their influence on the decision-making (as mentioned by the household representatives themselves) we could classify these factors into two categories (i.e. factors showing a medium and/or strong effect). Seven of them were mentioned as factors showing a *medium effect* on the decision-making and food purchasing of our respondents:

– Habit (49. 3% of households);
– Product parameters (53%);
– Brand (63%);
– Package (55%);
– Promotion (55%);
– Recommendation of other people (58%);
– Curiosity and an effort to try an innovation (57%).

The remaining three factors were mentioned as *strongly influential*:

– Quality (53%;
– Price (48%);
– Price-off offers (46%).

The dependence of the effect of these ten factors on the net annual income of households is presented in Table 3. The rank of these factors was calculated using Kendall coefficient tau.

As shown above, the *relationship between the net annual income and effects of the aforementioned ten factors on the decision-making and buying behaviour of households was statistically non-significant.* As far as the relatively strongest factors were concerned (such as price and price-off offer), their effects were naturally indirectly proportional. This means that, in general, for households with higher annual incomes the price and price-off offers are less important when buying foodstuffs than for those with lower annual incomes.

Table 3. Effect of ten factors on food purchase as dependent on the household income

Factor	Kendall coefficient τ
Habit	–0.01
Product parameters	0.1
Price	–0.15
Quality	0.1
Brand	0.11
Price-off offers	–0.12
Package	0.06
Promotion	0.05
Recommendation of other people	0.02
Effort to try an innovation	0.1

A more detailed analysis of frequencies of answers indicates that these differences were even more apparent. This concerns above all factors with a strong effect on the buying decisions. A strong effect of price on food purchasing was mentioned by 66% of households with the net annual income < 200 thousand CZK but only by 35% with the net annual income > 400 thousand CZK. A similar strong effect was observed also in case of price-off offers: 62% and 34% of households with net annual incomes < 200 thousand and > 400 thousand CZK, resp., answered that they decided about the food purchase under the influence of this factor. On the other hand, only 45% of households with the net annual income < 200 thousand CZK mentioned that they decided about the food purchase on the base of its quality while in the group with the net annual income > 400 thousand CZK altogether 62% of answers concerned the quality of purchased foodstuffs.

This means that the net annual income of the household is – at least to a certain degree – reflected in the perception of such strong factors as price, price-off offer and/or quality.

In further statistical analysis, attention was paid to the relationships existing among *the place of purchase*, *action prices* and *normal prices*. It was found out that the strongest relationship existed between prices and action prices (Kendall coefficient tau = 0.48). *The higher the importance of price for the household, the greater was the attention to action prices and vice versa.*

It was a little surprising that there was no statistical relationship between the place of purchase and prices (Cramer's coefficient V = 0.07) and/or action prices (Cramer's coefficient V = 0.04). This means that the *popularity of purchasing food in discount shops, supermarkets, shopping centres, and hypermarkets was not associated too much with the importance of normal and action prices for the individual households*.

Similarly, we were also interested to know what was the relationship between the *brand, package and advertisement.* A weak statistical relationship was found out between brand and advertisement (Kendall coefficient tau = 0.22) and between brand and package (Kendall coefficient tau = 0.25). On the other hand, the relationship between package and advertisement was stronger (Kendall coefficient τ = 0.4). This means that the *households, which were influenced by the advertisement when purchasing food, were influenced* also *by the package* while those which did not care too much about ads were not influenced by the package as well.

Purchases of clothing and shoes

Also in this case it should be at first presented *if and where the households looked for information about these products and how they used these data within the process of their decision-making.* A summary of responses is presented in Table 4.

As compared with Table 1, it is obvious that the number of people not looking at all for data when buying these goods was lower by nearly 10%. In spite of this, however, they represented nearly one half of all households. The number of people surfing on Internet slightly increased but in spite of this they represented only 3% of all respondents.

Also in this case there was no correlation between the net annual income of these households and their purchases of clothes and shoes. The behaviour of households with low (< 200 thousand CZK) and high (> 400 thousand CZK) income was very similar and the value of Cramer's coefficient *V* was only 0. 07.

As far as the *place of purchase* was concerned, the behaviour of households differed considerably from data presented in Table 2 because the answers revealed that people purchased these goods mostly in specialised shops; 62% and even 74% of respondents, resp., mentioned these outlets as the place of their purchases of clothing and shoes. Foodstuffs were purchased most frequently (65% of all answers) in discount shops, supermarkets, shopping centres, and hypermarkets while in case of clothing and shoes buying only in 16% and even mere 8% of households, respectively. These goods were relatively often purchased in job producers and in brand shops (10% and 12% of clothes and shoes, resp.). Street markets were preferred by 11% and 5% of households as the place of purchase of clothing and shoes, respectively. In second hand shops, clothes and shoes were purchased by only 2% and 1% of respondents, respectively.

Table 4. The most frequent sources of data about clothing and shoes

Source of data	Percentages
Not looking for information	48
Catalogues	27
References provided by other consumers	10
TV and radio advertising campaigns	6
Journals and newspapers	6
Internet	3
Total	100

The place of purchase of clothing was statistically only a little correlated with the total annual income of the household (Cramer's coefficient *V* = 0. 18). Altogether 26% of households with less than 200 thousand CZK per year purchased their clothing in street markets while only 3% of them visited brand shops and/or job producers. On the other hand, households with annual net incomes above 400 thousand CZK did their shopping in brand shops and/or job producers while mere 3% of them purchased these goods in street markets. It is of interest that 1% of them mentioned also second hand shops as the place of their shopping.

A similar situation existed also in buying *shoes*. The statistic relationship between the buying behaviour and total annual net income was very weak (Cramer's coefficient *V* = 0.18). Approximately 18% of households with the annual income < 200 thousand CZK mentioned street markets as their outlets while 18% of those with more than 400 thousand CZK purchased shoes in job producers and brand shops.

Also in this case we tried to analyse how much were the households influenced by the following nine factors when *purchasing clothes and shoes*. As compared with the purchases of foodstuffs, the quality and advertisement were omitted while the fashion trends were added. Basing on the influence on the representatives of individual households, these factors could be classified into three groups.

A low impact on purchases of clothes and shoes showed:
– Package (63% of all household mentioned its effect as low),
– Curiosity and an effort to try an innovation (46%).

Of medium importance were:
– Brand (57% of households),
– Recommendation of other people (57%),
– Fashion trends (50%),
– Action prices (49%).

The remaining three factors were mentioned as *strongly influential*:
– Product parameters (61%),
– Habit (52%),
– Price (50%).

Effect of the net annual income of households under study on changes in the effect of the above nine factors are presented in Table 5. Again, the Kendall

Table 5. Effects of nine factors on purchases of clothes and shoes in dependence on the annual income of the household

Factor	Kendall coefficient tau
Habit	–0.07
Product parameters	0.08
Price	–0.09
Brand	0.12
Price-off offers	–0.04
Package	0.03
Recommendation of other people	0.04
Effort to try an innovation	0.07
Fashion trends	0.12

coefficient tau was used as a parameter of the intensity of effects of these factors.

As one can see in Table 5, the relationships existing between the net annual incomes of the household on the one hand and nine aforementioned factors on the other was in the case of buying clothes and shoes very similar to the situation when buying foodstuffs and is also statistically *non-significant*. As compared with foodstuffs (where the most intensive relationship was found out between normal and action prices), the strongest relationship was observed between the brand and the latest fashion trends.

Besides, when analysing the frequencies of individual answers, it is possible to see that these differences were even stronger. A strong influence of the brand was mentioned only by 8% with the lowest net annual income (i.e. < 200 thousand CZK) while nearly one half (49%) of those with more than 400 thousand CZK considered this relationship as important.

Table 6. Sources of information about individual groups of products

Source of information	Percentage
Not looking for information	15
Catalogues	29
References provided by other consumers	14
Results of consumer's tests	10
Journals and newspapers	14
Internet	18
Total	100

Purchases of home appliances

This part of this paper deals with purchase of a very wide category of goods, the name of which was defined as *home appliances*. This category involves above all furniture, brown goods, white goods and also some different types of accessories.

Also in this case we tried at first to ascertain *if and where the households looked for information about these products and how they used these data within the process of their decision-making.* A summary of answer is presented in Table 6.

As one can see, there was a *marked decrease* in the numbers of people not looking for information prior to the purchase of these goods. As compared with purchases of foodstuffs, clothes and shoes, where approximately one half of households did not look for necessary information, only 15% of respondents were not interested in such data. This indicated that – from the viewpoint of customers – the purchases of home appliances represented the solution of a limited problem, which required more information than when buying food and/or clothing and shoes. These products can be classified as *durable goods* (that are used for several years or even decades) and also their *purchasing price* is much higher (ranging from several thousands to several tens of thousands of CZK).

Proportions of the individual sources of necessary information were changed as well. Although the catalogues were in the first place, also in this case (29% of answers), the percentages of Internet (18%), professional journals (14%) and personal references (14%) were markedly increased. The least interested were results of consumer tests – only one tenth of respondents mentioned also this source of data.

The effect of net annual income on this approach of Czech households to purchases of home appliances was very weak because the value of Cramer's coefficient of association was only 0.12. However, 23% of households with a low net annual income (< 200 thousand CZK) mentioned that they did not need any data and only 10% of them used Internet. On the other hand, 23% of households with a high net annual income (> 400 thousand CZK) looked for information on Internet.

As far as the *place of purchase* was concerned (Table 7), specialised shops selling furniture and brown goods were mentioned as the most frequent outlets (73% of all households). The percentage of specialised shops and job producers was also higher (15%) while the importance of discount shops, supermarkets, shopping centres and hypermarkets decreased (11%). Second hand shops were entirely marginal and even in households with the lowest net annual income their share was only 0.5%. The same percentage of second hand shops was mentioned also by households with the highest net annual income. However, there is no doubt that in this group the purchases took place mostly in antique shops.

As mentioned above, the *place of purchase of home appliances was only a little associated with the household's income* (Cramer's coefficient of association = 0.13). However, there were certain differences also in purchase of this category of goods: altogether 18% and 7% of household with the lowest and the highest net annual income, resp., purchased home appliances in discount shops, supermarkets, shopping centres and hypermarkets. Altogether 24% of households classified into the latter group purchased home appliances in specialised shops and/or in workshops of job producers.

Further we tried to analyse how much were purchases of *these goods* influenced by factors that were taken into account when buying foodstuffs. Also in this case, it was possible to classify these factors into three different categories:

Table 7. Places of purchase of goods

Place of purchase	Percentages
Second-hand stores	> 1
Discount shops, supermarkets, shopping centres and hypermarkets	11
Furniture and home appliances shops	73
Specialised shops, job production	15
Total	100

Table 8. Effects of ten factors on purchases of home appliances in dependence on the annual income of the household

Factor	Kendall coefficient tau
Habit	–0.04
Product parameters	0.07
Price	–0.09
Quality	0.08
Brand	0.11
Price-off offers	–0.06
Package	0.01
Promotion/advertisement	0.03
Recommendation of other people	0.004
Effort to try an innovation	0.1

A low effect was mentioned in case of:
– Curiosity and an effort to try an innovation (54% of household mentioned its effect as low),
– Package (even as much as 64%).

Of medium importance were:
– Acton prices (49% of households),
– Advertisement (50%),
– Brand (58%),
– Recommendation of other people (59%).

The remaining three factors were mentioned as *strongly influential*:
– Habit (51%),
– Price (54%),
– Product parameters (68%),
– Quality (68%).

Effect of the net annual income of households under study on changes in the effect of the above ten factors are presented in Table 8. Also in this case, the Kendall coefficient tau was used as a parameter of the intensity of effects of these factors.

As one can see, the *relationship between the net annual income and effects of ten factors mentioned above on the buying decision-making of households was statistically non-significant*. Even in this group of goods, the values of Kendall coefficient tau were a little lower than in the group of foodstuffs.

However, a more detailed analysis of frequencies of answers indicates that (in spite of the statement mentioned above) these differences are becoming more and more apparent. This concerns above all factors showing a strong effect on decision-making when buying home appliances. A strong effect of price was mentioned by 68% of households with the net annual income up to 200 thousand CZK while in the group with more than 400 thousand CZK, the share of these answers was only 46%. On the other hand, a strong effect of product parameters was mentioned only in 52% of households with less than 200 thousand CZK p. a. while in that with more than 400 thousand CZK this proportion increased to 77%. Similarly, a strong effect of quality was mentioned only by 49% of households with less than 200 thousand CZK while in the group with > 400 thousand CZK this effect was mentioned in 79% of answers.

Based on results of this analysis, it can be concluded that the annual income of the household reflects to a certain degree the effect of the aforementioned factors on their purchases of home appliances and that the strongest were effects of price, technic parameters and quality of purchased products. There is therefore no doubt that the requirements of households with higher annual incomes are much higher.

CONCLUSIONS

Based on results of this marketing research, it can be concluded that when buying foodstuffs and home appliances, the quality was the most important. When buying clothing and shoes, above all the product properties (i.e. *de facto* also its quality) were preferred. Price was mentioned less frequently as a factor influencing the buying behaviour. Although it was not mentioned as a priority, there were some differences, which depended mainly on the income situation of the household.

In contrast to foodstuffs, which were preferably purchased in discount shops, supermarkets, hypermarkets, and shopping centres, clothes and even more shoes and home appliances were purchased mostly in specialised outlets.

As the purchase of home appliances is more complicated and, as compared with the purchase of food, clothing and shoes, it represents a more complicated decision-making process (i.e. solution of a limited problem), the majority (85%) of customers looked for information in different available data sources, especially in different catalogues.

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