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HOUSEHOLD CONSUMER BEHAVIOUR AT PURCHASING GROCERY GOODS SPRÁVANIE SPOTREBITEĽA PRI NÁKUPE POTRAVIN

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The article analyses behaviour of Czech households in the grocery goods market in the year 2006. The surveyed factors influencing the purchase of groceries were price, brand, quality, characteristics of goods, discounts, advertisement, innovation, recommendation of friends and related persons, point of purchase, information sources, etc. Primary data was gained by using the electronic questioning technology. Through its mediation was gained information on 727 Czech household in the year 2006 and 1074 household in the year 2005 in terms of research compiled by the Department of Marketing and Trade on the Faculty of Business and Economics Mendel University of Agriculture and Forestry in Brno. Part of the article represents comparison of influence level by factors influencing consumer behaviour in the research periods.

Key words: groceries, consumer behaviour, survey, factors, trend

Selection of the grocery goods is a part of basic decision-making suits in everyday household course. Therefore its analysis seats pivotal position in the research of consumer's behaviour instant on the Department of Marketing and Trade on the Faculty of Business and Economics Mendel University of Agriculture and Forestry in Brno. This article presents conclusions of the questionnaire inquiry oriented just on household's decision making at purchase of groceries on the part of predefined factors, as price of products, advertisement, prescriptive behaviour or recommendation of related persons, etc. The survey was conducted in two periods – in the year 2005 and the last quarter of the year 2006. There are available two sets of data enabling not only to estimate the percentage of the occurrence of the answer variants, but also to outline the time order development. The factors as e.g. offer and market availability of particular kinds of groceries, or before-purchase collection of information that plays important role in the theory of consumer behaviour are not explicitly included in the analysis. Nevertheless, it is possible to recognize them from the results of the decision-making process itself. Further, there are not described and analysed so called micro-level determiners, as standard of living and style of life, or life cycle of individual shoppers and households. However, their fall-out is evident in delimitation of single factors.

The aim of the article is to present household behaviour in the grocery goods market in the year 2006 to refer to key factors that may notable influence on the behavior of the Czech households in the grocery goods markets, and also to find out, which household member is the person making decision about the purchase of groceries, where the households mostly buy groceries, and their behavior in case of poverty. A comparison of pivotal factors of the influence in the years 2005 and 2006 will be a partial aim.

Czech households. Technology used for collection the primary data was electronic questioning that testified itself being very efficient. The software used for electronic questioning was developed on the Department of Marketing and Trade and published by the authors Souček and Pavlíček (2005).

Questionnaire inquiry proceeded from the beginning of October 2006 to the end of December 2006 in various regions of the Czech Republic and during this period 727 well completed questionnaires were gathered. This research tied up with analogous research carried in the year 2005 when the information on 1074 households was pooled. To pick a household no restrictive criteria that would concentrate focus only on definite respondent segment were selected. The household structure (age, education and occupation of household leading member), household's income group and domicile were the tracked identification signs. Summaries for each sign are presented in following table.

Subject of the inquiry was to obtain information on the influence of certain factors over purchasing groceries expressed by the help of point scale. These factors were for example:

- habit or need,
- rational characteristics – price, quality, brand, price reduction, cover, etc.
- advertisement,
- recommendation of other people,
- endeavour to try out news,
- other reasons.

The ten-point scale has been built up to measure degree of influence (1 – unswayed, 10 – maximum affected). Better plasticity was achieved by mergence into three groups: 1, 2, 3 – small interference; 4, 5, 6, 7 – middle interference; 8, 9, 10 – prepotent interference. The information on household behaviour in case of poverty, most common place of purchase groceries, and the person deciding about buying specific grocery goods was looked for, too. Basic methods of descriptive statistics (frequency distribution and basic statistical characteristics calculation, and dependence analysis) were used for analyses of the obtained data.

Material and methods

Information for the analysis of the pivotal factors meeting the consumers' needs was gained through marketing research of

Table 1 Structure of informant set according to identification signs

	2005	2006		2005	2006
Education of household leading member (1)			Occupation of household leading member (17)		
University graduate (2)	321	270	Employee (18)	721	459
Secondary education (3)	411	282	Self-employer (19)	99	81
Advanced vocational training (4)	50	24	Pensioner (20)	107	34
Vocational certificate holder (5)	254	135	Entrepreneur (21)	88	73
Primary education (6)	38	16	Student (22)	18	33
Total (7)	1 074	727	Working student (23)	26	24
Age of household leading member (8)			Farmer (24)		
Younger than 30 (9)	104	90	Other (25)	7	17
30 to 45 (10)	211	212	Total (7)		727
46 to 60 (11)	653	398	Household's annual income (26)		
61 to 75 (12)	78	21	Less than 200,000 CZK (27)	182	74
Older than 75 (13)	28	6	201,000 to 300,000 CZK (28)	269	158
Total (7)	1 074	727	301,000 to 400,000 CZK (29)	238	159
Population of household's domicile (14)			401,000 to 500,000 CZK (30)	178	143
Less than 1,000 inhabitants (15)	242	127	501,000 to 700,000 CZK (31)	126	101
1,001–10,000	316	193	more than 700,000 CZK (32)	81	92
10,001–70,000	21	153	Total (7)	1 074	727
70,001–200,000	38	29			
More than 200,000 inhabitants (16)	277	225			
Total (7)	1 074	727			

Tabuľka 1 Štruktúra respondentov podľa identifikačných znakov

(1) vzdelanie „hlavy“ domácnosti, (2) vysokoškolské, (3) stredoškolské, (4) odborné s maturitou, (5) učňovské, (6) základné, (7) celkom, (8) vek „hlavy“ domácnosti, (9) mladší ako 30, (10) 30–45, (11) 46–60, (12) 61–75, (13) starší ako 75, (14) veľkosť miesta budlika, (15) menej ako 1 000 obyvateľov, (16) viac ako 200 000 obyvateľov, (17) zamestnanie „hlavy“ domácnosti, (18) zamestnanec, (19) samostatne zárobkovo činný, (20) penzista, (21) podnikateľ, (22) študent, (23) pracujúci študent, (24) farmár, (25) iné, (26) ročný príjem domácnosti, (27) menej ako 200 00 CZK, (28) 201 000–300 000 CZK, (29) 301 000–400 000 CZK, (30) 401 000–500 000 CZK, (31) 501 000–700 000 CZK, (32) viac ako 700 000 CZK

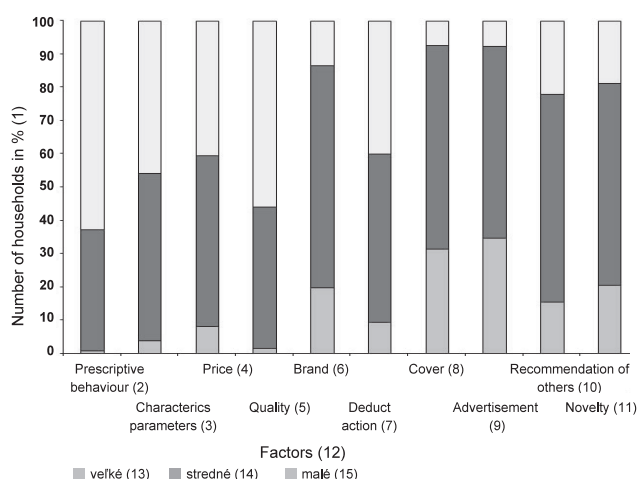
Required calculations were built up by the help of statistical software STATISTICA.

Results and discussion

The survey showed that households made provision according to all mentioned factors. However, the measure of their interference expressively differs. Graph 1 shows analysis of primary data of absolute frequency retrieved over the last quarter of the year 2006.

In the year 2006 the dominative factor for decision making about groceries selection was according to the informants the **prescriptive behaviour** and of course lacks of particular groceries, it means existence of **need**. Only 0.69 % informants in the questionnaire answered that this factor at purchase influenced them only in small measure. On the contrary, for 63.0 % of the gained sample habit or need is highly significant factor influencing their purchase behaviour. The factor of the **quality** of groceries was identified as proxime accessit in chronognosis importance. Big weight to this factor is given by 56.12 % of households and only 1.38 % of the households consider quality the factor of medium importance. Unexpectedly, economics factors **price** and **deduct action**? = discount? got behind. Price is crucial for 40.72 % of the households while **food products characteristics** for 45.94 % of informants. Further the members of analyzed households

took into their consideration **recommendation of others, brand and novelty** in the marketplace. Low and high measure

**Graf 1** Measure of interference by individual factors at purchase groceries at last quarter of the year 2006**Chart 1** Miera interferencie podľa jednotlivých faktorov nákupu potravín v poslednom štvrtroku 2006

(1) počet domácností v %, (2) návykové správanie, (3) charakteristické parametre, (4) cena, (5) kvalita, (6) značka, (7) zľava, (8) obal, (9) reklama, (10) odporúčania druhých, (11) novosť, (12) faktory, (13) veľké, (14) stredné, (15) malé

Table 2 Khi-square values and right-hand polarization probability

Factors (1)	Characteristics (12)	Identification signs (13)				
		education (14)	occupation (15)	age (16)	income (17)	number of inhabitants (18)
Prescriptive behaviour (2)	chi-quadrante (19)	37.34	44.81	443.11	63.54	27.66
	right-tail probability (20)	0.41	0.96	0.99	0.75	0.84
Characteristics and parameters (3)	chi-quadrante (19)	43.81	53.27	445.59	65.46	32.96
	right-tail probability (20)	0.17	0.81	0.99	0.69	0.61
Price (4)	chi-quadrante (19)	54.50	114.55	550.91	154.63	40.69
	right-tail probability (20)	0.02	0.01	0.36	0.01	0.27
Quality (5)	chi-quadrante (19)	37.34	82.78	1 283.92	63.38	32.24
	right-tail probability (20)	0.41	0.04	0.03	0.75	0.64
Brand (6)	chi-quadrante (19)	41.48	114.55	706.02	108.32	30.32
	right-tail probability (20)	0.24	0.01	0.03	0.01	0.74
Discount (7)	chi-quadrante (19)	47.76	82.74	565.49	91.96	26.75
	right-tail probability (20)	0.09	0.04	0.21	0.05	0.87
Cover (8)	chi-quadrante (19)	42.12	77.45	496.48	79.50	39.97
	right-tail probability (20)	0.22	0.10	0.91	0.25	0.29
Advertisement (9)	chi-quadrante (19)	34.45	85.33	612.60	87.46	47.21
	right-tail probability (20)	0.54	0.03	0.03	0.10	0.09
Recommendation of others (10)	chi-quadrante (19)	3.14	80.27	704.77	87.32	32.30
	right-tail probability (20)	0.74	0.07	0.03	0.11	0.65
Novelties (11)	chi-quadrante (19)	37.58	119.54	603.01	80.24	39.83
	right-tail probability (20)	0.39	0.01	0.03	0.23	0.31

Source: author's calculations

Zdroj: vlastné výpočty

Note: Right-hand polarization probability is an identification factor for determination of dependencies. It testifies dependencies among surveyed factors. If the value is higher than 0.05 the factors are independent. Grey patches show the factors and the identification groups where the dependence was proved.

Tabuľka 2

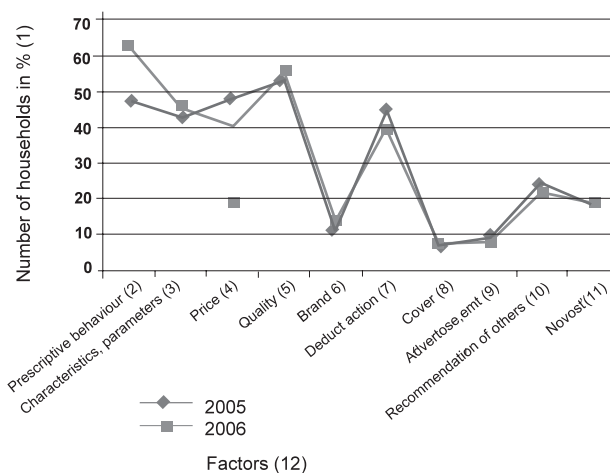
Testovacie kritérium Chi-kvadrát rozdelenia a pravdepodobnosť pravotočivej polarizácie

(1) faktory, (2) návykové správanie, (3) vlastnosti a parametre, (4) cena, (5) kvalita, (6) značka, (7) zľava, (8) obal, (9) reklama, (10) odporúčanie druhých, (11) novost, (12) vlastnosti, (13) identifikačné znaky, (14) vzdelanie, (15) zamestnanie, (16) vek, (17) príjem, (18) počet obyvateľov, (19) testovacie kritérium Chi-kvadrát rozdelenia, (20) pravdepodobnosť na pravom chvoste rozdelenia

interference is almost equal and it forms roughly half of the number of cases in which these factors were marked as of medium importance. We can see interesting combination of approaches to purchasing groceries: it means progressive, i.e. interest in new with conservative approach resolving from the experience of others. The **cover** and **advertisement** on food products were considered subjectively as least important for decision making, as their juxtaposition in the questionnaire inquiry results reveals. While cover is least principal among all small account factors (31.36 % for cover to 34.66 % for advertisement), advertisement is identified by more households as more important factor than cover (7.43 % for cover to 7.84 % for advertisement). However, the difference between prescriptive purchase behaviour or decision making and perceived demand qualities is striking. However, minor factors that are merely mentioned are taste (mentioned by 10.31 % households), orientation to wealthy life-style inclusive purchasing whole foods (3.71 %), and selecting definite kind of groceries on the ground of health limitations (3.44 %).

Dependence or independence among identification groups and single factors was rated and subsequently tested by the help of contingency tables, khi-square values and right-hand polarization probability.

The price factor showed out the biggest dependence on education, household's pivotal member occupation and household's income. Brand is also highly dependent on identification signs – pivotal member's age and occupation,

**Graf 1** High amount of influence by individual factors in the years 2005 and 2006**Chart 1** Vysoká miera vplyvu podľa jednotlivých faktorov v rokoch 2005 a 2006

(1) počet domácností v %, (2) návykové správanie, (3) vlastnosti a parametre, (4) cena, (5) kvalita, (6) značka, (7) zľava, (8) obal, (9) reklama, (10) odporúčanie druhých, (11) novost, (12) faktory

and whole household's income. The quality of goods, advertisement and novelties showed dependence on pivotal

household's member age and occupation. The discount factor depends on pivotal member's occupation and household's income. Recommendation of other market participants is independent on almost all identification signs except the household pivotal member's age. The absolute independence on all signs was proved in case of the consumer prescriptive behaviour, product characteristics, parameters, and also cover. The table also shows that the interference or dependence between factors and number of household's municipality inhabitants is minimal.

There follows the juxtaposition of individual factors from the standpoint of the importance for the informant households in allotted double successive periods. In Graph 2 the values in percentage of high interference of factors in the years 2005 and 2006 are shown.

Importance given to single factors corresponds to a great extend. Striking growth is perceptible only in prescriptive behaviour coming out from actual respondents' needs. Last year this category was crucial for 63.00 % of households, which means 14.05 % growth. On the contrary, in the decision making about selection groceries the importance of price sharply increased from 48.42 % to 40.72 %. Join values of other factors almost overlap, which means that in the year-on-year development no expressive changes are registered.

Conclusion

Chronognosis importance of single defined factors influencing purchase act was considerably odd. Biggest part of informant households in questionnaire inquiry compiled in the year 2006 responded that the main factor influencing selection of food products is prescriptive purchase behavior connected with actual sensation of poverty/needs particular kind of groceries. For more than 99 % of informants this is at least medially important factor and almost two thirds of them perceive it as a crucial one. Next in sequence of the identified factors were quality and specific features and parameters. Behind those categories are placed economic attributes as discount and price. Option as a „very important factor“ was marked by roughly 40 % of informants. Smallest weight at decision making about purchasing groceries was given to advertisement on food produce and its cover, no matter whether from the point of view of aesthetic or usable capacity. 7.43 % households consider cover a vital element in selection, and advertisement was marked by 7.84 % of them. Except these factors some households mentioned other selection criteria, as taste of groceries, healthy life-style or health limitation of one or more household members.

After the evaluation of the questionnaire inquiry results from the year 2006 the comparison of the interlacing data of analogous inquiry in 2005 was made. The results showed some interesting tendencies from the point of view of development during the course of time. For example cost factor registered almost 8 % fall of influence on consumer decision making. On the other hand, there was registered growth of importance in case of prescriptive behaviour connected with satiation of actual needs. In the year 2005 this factor was marked as very important for realization of purchase decision by nearly half of the households, while in 2006 this evaluation was marked by almost two thirds of informants. Growth of importance was also registered in case of the factor of the quality of groceries and brand. Besides the above mentioned cost factors, the factors of

advertisement and recommendation of other shoppers declined, too. Following years will show whether this fact means general tendency or just incidental situation.

Súhrn

Článok analyzuje spotrebiteľské správanie českých domácností na trhu s potravinami v roku 2006. Faktory prieskumu, ktoré ovplyvňovali nákup potravín boli: cena, značka, kvalita, vlastnosti tovaru, zľavy, reklama, inovácia, odporúčanie priateľov a príbuzných, miesto nákupu, informačné zdroje, atď. Pri-márne údaje boli získané technológiou elektronického dotazníka. Takýmto spôsobom boli v rámci výskumu Ústavu marketingu a obchodu Prevádzkovo-ekonomickej fakulty Mendelovej poľnohospodárskej a lesníckej univerzity v Brne v roku 2006 získané informácie z 727 českých domácností a v roku 2005 z 1 074 domácností. Časť článku podáva porovnanie úrovne vplyvu faktorov, ktoré vplývali na správanie spotrebiteľov v skúmanom období.

Kľúčové slová: potraviny, správanie spotrebiteľa, prieskum, faktory, trend

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