

FOODSTUFFS LABELLING AS AN INSTRUMENT OF MARKETING AND FOOD SAFETY ASSURANCE

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Abstract. Consumers research held in the year 2001 allowed for determination of the foodstuffs labelling importance as an instrument of marketing and food safety assurance. The role of labelling in consumers purchase decisions and the degree of knowledge of marks placed on the packaging among the consumers were estimated. It was found that label is an important element of packaging in consumers opinion and influences their purchase decisions, and also that the knowledge of informative marks is not sufficient.

Key words: labelling, food safety, consumer, marketing quality, brand.

INTRODUCTION

Foodstuffs markets in high developed countries are characterized by the permanent surplus of supply over demand. The food enterprises compete on the market by offering the new products with certain parameters and food attributes. One of the ways of informing about such products and one of the methods of consumer acquiring is a direct information about the foodstuff. It may appear as a labelling or a trademark on a label or a package. Therefore labelling is acquiring more and more importance as a promotion instrument. With its aid producer or their commercial agent try to distinguish their product among the others in the consumer eyes. The producer should be conscious of the fact that success on the market may be achieved by the expedient of assuring the proper product quality and also informing the consumer about it.

The foodstuffs labelling becomes the important tool of achieving the satisfaction coming from goods purchasing that are compatible with the consumer needs and expectations. The labelling also becomes a guarantee of health hazards avoiding that may be the result of inappropriate food consumption (i.e. allergens or dangers connected with BSE and dioxins) and using the biological progress during the foodstuffs production (i.e. hormones, grower substances, GMO products) which effects have not been sufficiently examined yet.

Such elements as nutrition information, quality and safety marks, ecological marks, geographical indications, information about medals and honourable mentions received either in the international and national fairs or in the prestigious competitions, promotions and packaging graphics are the important marketing elements appearing on the packaging that increase the product attractiveness and have influence on its good brand in a remarkable degree.

The role of those issues is strengthened by the integration process with the European Union where food health safety becomes the priority of common agricultural and food policy.

AIM AND SCOPE OF STUDIES

The main aim of this research was to determine the foodstuffs labelling importance as an instrument of marketing and food safety assurance. Within the scope of the above general aim the following detailed aims were distinguished:

1. Estimation of foodstuffs labelling (and its detailed elements) in consumers purchase decisions and also the feeling of satisfaction and safety achieved in this way. Thus, the degree of nutritional needs satisfaction and food safety are considered in the sphere of demand molding.
2. Evaluation of consumers knowledge in the scope of food labelling regulations and specific symbols and information placed on the foodstuffs packaging and also estimation of state and institutional help in increasing of consumers consciousness in that range.

METHODOLOGY AND ORGANIZATION OF RESEARCH

The main source material comes from the researches that were held with the aid of the diagnostic poll method consisting of three techniques: interview inquiry-sheet, direct observation and source materials analysis. The main research method was the interview inquiry-sheet which was held among 400 consumers in the year 2001. The research was carried out in selected rural areas, small and medium towns and urban agglomerations in Mazowieckie, Podlaskie, Dolnośląskie, Lubelskie and Zachodniopomorskie provinces. The random selection method according to such features as financial situation and place of residence was used in the basic research.

The following research methods were applied in the material analysis:

- descriptive method,
- table analysis method,
- data graphic presentation method,
- research material processing methods: analysis and synthesis,
- statistic methods.

RESULTS

The role of individual premises during purchasing decisions taking

According to empirical material analysis it appears that respondents in their purchasing decisions are guided mainly by first purchase experience (the average 4.3 in 5-degree scale), information placed on label (3.57), and they also pay attention to product quality and information acquired from members of their family and friends (average 3.58). The least significance has the information from the media (i.e. advertisement) (average 2.57).

The influence of social and demographic profile for some of premises which are important in consumers purchasing decisions is diverse. In some cases the influence is surprisingly meaningful. Therefore the correlation coefficient was calculated that is direct connection strength measure between two features¹ [Sobczyk 2000].

The following factors were accepted/assumed in the correlation calculation:

- X1 – product price, cena produktu,
- X2 – product brand, marka produktu,
- X3 – labelling, informacja na etykiecie,
- X4 – product origin, pochodzenie produktu,
- X5 – product high quality, wysoka jakość produktu,
- Y1 – respondent age, wiek respondentów,
- Y2 – place of residence, miejsce zamieszkania,
- Y3 – financial situation, sytuacja finansowa,
- Y4 – education, wykształcenie.

Table 1. Correlative connections between basis indexes

Tabela 1. Zależności korelacyjne między wskaźnikami bazowymi

	X1	X2	X3	X4	X5
Y1	0.1734	0.7765	-0.0080	0.1010	-0.1737
Y2	-0.2449	-0.1581	0.1706	-0.7761	0.3076
Y3	-0.8726	-0.1768	0.0363	-0.2015	0.8070
Y4	-0.1442	0.0253	0.7244	-0.1971	0.2380

Source: own researches, źródło: obliczenia własne.

The importance of the product price was highly correlated with respondents financial situation. Correlation index amounted to -0.87, so it seems that the worse the financial situation is, the bigger significance the product price has. There was also a very high connection between the product brand and respondents age (0.77 – the older

¹The formula for Pearson linear correlation coefficient is calculated by covariation standardization:

$$r_{xy} = r_{yx} = \frac{cov(x, y)}{s(x)s(y)}, \text{ where}$$

r_{xy} – Pearson linear correlation coefficient,

$cov(x, y)$ – covariation,

$s(x)$ i $s(y)$ – adequate variations standard deviation.

respondents the bigger brand importance), between labelling and education (0,72 – the better-educated consumers the bigger label significance), between product origin and place of residence (-0.77 – the bigger town the bigger origin importance) an also between high product quality and financial situation (0.8 – the better financial situation the bigger high quality significance).

For better situation presentation the rank index was used in order to analyse more deeply the connection between the label importance during making purchasing decisions and the respondents education. The degree of label significance in dependence on respondents education is presented in Diagram 1.

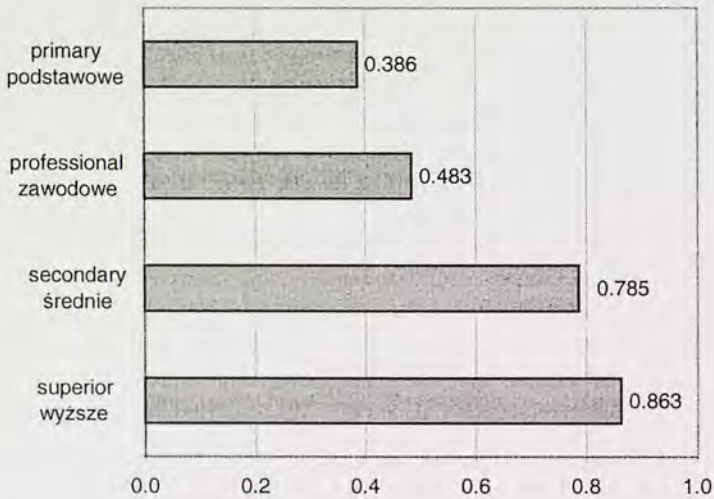


Diagram 1. Estimation of label importance in dependence of respondent's education (by ranks index value)

Source: own researches.

Wykres 1. Ocena znaczenia etykiety w zależności od wykształcenia respondentów (według wartości wskaźnika rang)

Źródło: badania własne.

As it is shown in Diagram 1 the significance of labelling decreases in case of low education. The primary educated respondents pay little attention to information on the packaging (0.38) while for the better-educated consumers the labelling importance is very high (0.86).

A lot of respondents declared that product origin is a very important product assessment criterion. 59.9% of respondents buy mainly Polish origin foodstuffs. So we can safely say that ethnocentrism phenomenon is very common among Polish consumers. The ethnocentric attitudes in market and consumption sphere are demonstrated by consequent and conscious national products preferring with opposition to foreign products. An ethnocentric consumer actively searches for information on the label that allows him to distinguish whether the product was produced in their country or if it was imported [Karcz 1999].

Brand importance in consumers purchasing decisions

The analysis results show that consumers group that are loyal with reference to a meat products producer is surprisingly large. Relative loyalty that reaches the level of 44% is considerably bigger than total loyalty that amounts to 8%. Total loyalty means purchasing of always the same brand products. Relative loyalty means choosing of mostly the same brand.

Loyalty distribution in dependence on consumers demographic and social profile is very interesting. The attention should be paid to harmonic loyalty distribution in dependence on the respondents age: the lower level total and relative attachment to one brand is in the youngest age group (20–29 years old) and it amounts adequately to 3% and 15.7%. So the older age group the bigger loyalty: in the oldest age group (over 60 years old) it amounts adequately to 9.1% and 61%.

The situation is alike in case of loyalty distribution in dependence on place of residence: it is biggest in the rural areas (total loyalty – 26.3%, relative – 61%) and smallest among the consumers living in cities (over 200 thousand inhabitants) – 46.2% of respondents purchase different brands meat products.

The importance of particular information placed on the foodstuffs packaging

Dąbrowska [2000] proves that merely 29% of Poles read nearly all the information on the label while 50% only browse through it.

Generally consumers pay attention to the information they are interested in. The researches showed that demand for information is diverse depending on its kind. First of all the foodstuffs purchasers read the information about minimum durability date or expiration date.

The consumers social and demographic profile influence on the opinion about the significance of some information is very big in some cases. Therefore, Pearson direct correlation coefficient was calculated between the particular demographic and social features and the importance of particular information.

The following factors were accepted/assumed in the correlation calculation:

- X1 – product brand, marka produktu,
- X2 – product origin information, informacja o pochodzeniu produktu,
- X3 – nutritional information, informacja żywieniowa
- X4 – quality marks, znaki jakości
- X5 – information about product reward, informacje o wyróżnieniu produktu
- X5 – product high quality, wysoka jakość produktu,
- Y1 – respondent age, wiek respondentów,
- Y2 – place of residence, miejsce zamieszkania,
- Y3 – financial situation, sytuacja finansowa,
- Y4 – education, wykształcenie.

The respondents age is very high correlated with product brand. Correlation index amounted to 0.78, so it appears that the older respondents are the more significance the brand has. There was also a very high connection between information about product origin and place of residence (-0.78 – the bigger town the smaller importance of residence place), between nutritional information (0.77), quality marks (0.79), information

about product reward (0.8) and the respondents education – the better educated consumers the bigger significance of this information (Table 2).

Table 2. Correlative connections between basis indexes
Tabela 2. Zależności korelacyjne między wskaźnikami bazowymi

	X1	X2	X3	X4	X5
Y1	0.7843	0.0692	-0.0493	-0.0527	-0.1072
Y2	-0.1759	-0.7876	0.1963	0.1989	0.2370
Y3	-0.1609	-0.2184	0.0582	0.1007	0.1226
Y4	0.0153	-0.1932	0.7768	0.7947	0.8080

Source: own researches, źródło: obliczenia własne.

Moreover, a lot of respondents consider that producers should place the nutritional information (76%) and quality marks (74%) on the label of foodstuffs.

It should be taken into consideration that the kind of product varies the consumers opinions on information importance. Its role is the most significant in case of dairy products (average 4.55 in 5-degree scale), fish product (4.51) and meat products (4.46) and the least significant in case of non-alcoholic and alcoholic beverages (3.77), herbs and spices (3.78). Without any doubt it is connected with different durability date of particular products categories (among other things). The importance of label increases in case of short durability foodstuffs, thus when negative consequences *risqué* grows.

Furthermore, the assessment of statements concerning the foodstuffs labelling looks as follows: 87.8% of respondents agree with the statement that labelling is producer's formal and legislative obligation in relation to consumer (the highest grade average in 5-degree scale was 4.52). Considerable part of respondents (84.8%) state that labelling is the product promoting instrument and 72.7% of consumers notice labelling educational role in the scope of rational diet. The fewest people believe (62%) that labelling is an instrument of food safety assurance. Such opinion is probably connected with the fact that in some cases label is not reliable. It is confirmed by annual controls made by PIH. Nearly 41% of respondents admitted that they were misled by information given on the packaging.

Consumers knowledge evaluation in the scope of labelling regulations and specific symbols and information

In order to estimate the knowledge of Polish labelling law the respondents were questioned about existing regulations in this scope and they were asked to indicate which law acts and obligatory information should be placed on the packaging.

The analysis results show poor labeling law knowledge among consumers. Only 63% of respondents believe that labelling regulations exist in Polish law and 12% are capable of indicating obligatory or partly obligatory information. The law ignorance in the light of obtained results shows that there is still much to do in the field of consumers education and protection. It is of great importance in connection with the approaching term of membership in the European Union. In the EU countries consumer protection is based on information transparency and it creates conditions for free choice and decision. The research results confirmed that consumers education need is very big in Poland.

Average 39% of respondents declared symbol and information knowledge and 9% knew neither of them. The most known symbols were "Q mark" (77.5% of respondents), "PN mark" (44%) and "ISO 9000 certification" (42%). Very few respondents recognized the meaning of information "irradiated product" (20%) and "minimum durability date" (20.5%).

It should be emphasized that consumers do not know the information connected with health safety. Different authors confirm this observation. E.g. in Mistewicz [1996] opinion Polish consumers are still not able to explain information and symbols placed on products that are available on our market. Among the others they do not understand the information "irradiated product" – such food is obligatory labelled because the vitamins (particularly A, B, E, K) are destroyed. Such consumers are not able to make fully aware choice. Mistewicz [1996] claims that foreign symbols and information placed on the imported products are not commonly known both by the consumers and by the sellers. Some of the information is meant to mislead the consumer and it is placed by producers who want, in this way, to encourage people to buy their goods. Many times it may be dubious if using those symbols and information is legitimate [Borys, Kobyłko, Rogal 1997]. In that situation useful information often disappear. The symbols that mean a lot in UE but a little in Poland appear on our market very often [Mistewicz 1996]. It is significant that respondents represent very poor knowledge of "minimum durability date" qualification. 33.5% of respondents mixed it up with expiration date and they considered that after that date the product is not usable to eat.

A bit better the situation looks in scope of consumers knowledge of contests and honourable mentions concerning the products high quality. The research revealed that the most popular and best-known contests are: "Teraz Polska" (91% of respondents heard about this contest) and honourable mention "Medal Polagra" awarded during Internation Polagra Markets in Poznań (73.7% of respondents). Significantly lower is the logo "Dobra Polska Żywność" identification awarded by Ministry of Agriculture (46.7%). The reason for that may be the short contest history (three years). Such result proves that the contest should be much more popularised, especially as it promotes the foodstuffs that meet very high quality demands, often even higher than the EU demands and it is produced only from Polish materials.

Information about quality honourable mentions more and more often appear on the foodstuffs packaging. The research showed that 80.5% of respondents have seen such information on the label. Moreover, consumers consider that producers should participate in such contests and should inform the consumers about products high quality on the packaging (93.8% of respondents).

CONCLUSIONS

Empiric material analysis allows to formulate the following conclusions:

1. Polish society is characterized by low consciousness in scope of labelling law knowledge. Regulations existing in Poland that are included in Regulation on foodstuffs labelling and they obligate producers to place particular information on the

label in order for consumers health and rights protection. Not only is product composition or expiration date important, but also the information about product irradiation, MAP packing, genetic modification or the possibility of allergy causing, because such notes inform about the possible product impact on health. On the other hand consumers often do not believe that labelling is an instrument of food safety assurance and that it is confirmed by annual controls made by PIH. So as the labelling could be such an instrument more restrictive fines should be imposed on the dishonest producers.

2. Skilfully used label may become a very important instrument in enterprises marketing strategy. Label is an important element of packaging in consumers opinion. So it may be considered that packaging informational function influences their purchase decisions. The information influence on purchase decisions grows with their education.

3. The labelling importance varies from consumer to consumer depending on the kind of information. The most essential is expiration date and the product ingredients. It should be taken into consideration that the kind of product also varies the opinions on information importance. The importance rises in case of short durability foodstuffs (i.e. meat and dairy products), thus when negative consequences risk increases.

4. There is a very high connection between the nutritional information, quality marks, information about product reward importance and the respondents education – the higher education the more significant the importance of these elements is in consumers opinion.

5. The meaning knowledge of symbols and information on product quality and safety is low in comparison with demand for such information. It is probably caused by lack of consumers education and popularisation of information that could be very important source of information, helpful in purchase decisions.

6. Brand using in product identification process has a very big importance because demand on products label with brand is big, in assumption that brand products realize the consumers needs and they provide them a lot of profits. Total and relative consumers brand loyalty is surprisingly high. Moreover, one of the significant elements in purchase decisions is foodstuffs Polish origin. Ethnocentric attitudes are shared mainly by older people and consumers living in rural areas and small towns.

To recap, it may be considered that information big importance in purchase decision process as an marketing instrument should become a matter of interest among the producers. New attractive and functional packaging using and also quality information placing on the label is advisable to strengthen products competitiveness. Moreover, the information placed by producers should be legal and legible to assure the consumer about food safety and quality guarantee.

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ZNAKOWANIE PRODUKTÓW SPOŻYWCZYCH JAKO INSTRUMENT MARKETINGU I ZAPEWNIENIA BEZPIECZEŃSTWA ŻYWNOSCIOWEGO

Streszczenie. Badania konsumenckie przeprowadzone w 2001 roku pozwoliły na określenie znaczenia znakowania produktów spożywczych jako instrumentu marketingu i zapewnienia bezpieczeństwa żywnościowego. Oceniono rolę etykietowania w decyzjach nabywczych konsumentów oraz stopień znajomości oznaczeń umieszczonych na opakowaniach produktów spożywczych wśród konsumentów. Stwierdzono, że etykieta jest ważnym elementem opakowania w opinii znacznej części badanych i wpływa na ich decyzje nabywcze, a także, że znajomość znaków informacyjnych jest niewystarczająca.

Słowa kluczowe: znakowanie, bezpieczeństwo żywnościowe, konsument, marketing, jakość, marka.

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