

## **IMPORTANCE OF PRODUCT FEATURES AS THE CRITERION OF CONSUMERS' SEGMENTATION ON THE EXAMPLE OF BREAD**

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**Summary.** This article presents the results of survey conducted with the use of the method of direct survey on the sample of 1676 people. The aim of the research was the analysis of importance of features influencing the choice of bread. As a result, the segmentation of consumers was conducted, where as the criterion was the importance of product features. On the basis of obtained results it was stated, that the most important features of bread for consumers are: freshness, taste, smell and healthy features, prolonged expiry date, recognition of the kind, nutritional value and the price. Five groups of consumers one may distinguish because of the bread features important to consumers and demographical as well as economical features (Comfortable, Demanding, Frugal, Gourmet, Traditionalists). It was stated that in changing marketing environment of companies and in the reality of competition, there is a possibility of entrance for bread producers or sales specialist with the offer or to undertake activities related to adaptation of the offer to consumers' demands and expectations.

**Key words:** segmentation, product features, consumer, bread

### **INTRODUCTORY REMARKS**

In changing marketing environment of companies and in the reality of competition, market segmentation is considered as one of the most important decision-making tasks [Kotler 2005, McDonald, Dunbar 2003]. In order to avoid competing on the whole marketplace, enterprises should describe the most attractive from their point of view segments (groups). Definition of segments may bring to trading companies and producers a lot of advantages, among others: the possibility to focus on the particular group of consumers (and to narrow the potential market to own products), the opportunity to know better the group of participants of particular market segment. Among advantages one may mention also better recognition of the market and consumers (what may influence the decrease of

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risk of wrong decisions), gradual offering products to other market segments, better adjustment of production sources of companies to reported nutritional needs (by consumers who belong to described segment), choosing products and other marketing instruments only to those recipients, for whom certain needs and demands were taken into consideration, and also faster noticing and reaction on changes that appear on the market.

Enterprises by defining their target market through segmentation are striving to optimally satisfy consumers' needs. Currently different segmentation criteria are being used, e.g. geographical, demographical, psychographical or based on the concept of the lifestyle. In the marketing practice of enterprises, combination of above mentioned criteria is used. One of the groups of segmentation criteria is one, which characterize products. Here important is the consumers' assessment of product's quality structure that is indication, which product's features are the most important to consumer, which are important on the medium level and which are less important. In assessment of quality structure consumers may indicate the importance of product features, for example from the field of primary features, ensuring healthy value, availability of product's attractiveness.

The aim of conducted research was the analysis of importance of features influencing the choice of bread. As a result, segmentation of consumers was conducted, where the criterion was the importance of product features.

Empirical research with the use of the method of direct survey was conducted on the all-Poland sample of 1676 people<sup>1</sup>, of the age over 15 years old. In the sample the share of women was 55% and men 45%. In distinguished age groups the most common were people in the age between 20–29 years (22%), 30–44 (20%) and between 45–54 years old (20%). The size of remaining groups was similar: 15–19 years – 14%, 55–64 years – 12% and over 64 years (11%). Almost 60% of respondents lived in the city, while almost half of them in cities over 100 thousand of inhabitants (38%). Over 40% respondents lived in the village (41%), 12% in towns below 20 thousand of inhabitants, and 11% in towns between 20–50 thousands of inhabitants. Less than 1/4 of surveyed (23%) had higher education, 21% – secondary school education, 25% – college education and secondary technical or vocational education, over 30% primary school education, incomplete primary school education and fundamental vocational education. The biggest part of the population was constituted by people who represented 2- (23%), 3- (28%) and 4-people (23%) households. Approximately 9% were 1-person households, 10% – 5-person and over 6% – 6 and more-people households. In the general number of respondents over 40% as a main source of maintenance pointed out the hired work. Non-gainful source of maintenance was the base of income for 1/4 of all surveyed population. Low per cent of respondents declared maintenance from self-employment in sectors beyond agricultural (8%) or from work at a single farm (6%). Among respondents, families where children became independent and single people constituted together over 1/5 of surveyed.

The questionnaire contained closed questions. The partitioned scale was used in order to describe by respondents how important are to them different features of the product (bread). Respondents assessed every feature on the scale from 10 to 1, where 10 denoted the highest grade.

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## PRODUCT FEATURES – IMPORTANCE OF BREAD FEATURES IN OPINION OF RESPONDENTS

From conducted own research related to bread features important to consumers during choosing the bread, it appears that the most important bread features are freshness, taste and smell. Very important were also healthy value, extended expiry date, recognition of the kind, nutritional value and the price. Remaining features presented to respondents play less important role in choosing the bread (Tab. 1). Relatively small importance according to respondents has the look, the fact that the bread is cut and packed, and the unit weight of bread. Conducted research indicated relatively low importance of the brand. One of the reasons of such result might be fact, that the brand influences consumers unconsciously, so most of them may not be aware that it affects their choice. It is worth to add that both women and men listed in similar sequence features important during choosing the bread. For women, slightly more important were the nutritional value, recognition of the kind and the smell of bread.

Table 1. Consumers' opinion regarding importance of bread features and sex of respondents (average)

Basic feature	Detailed	Total	Sex	
			women	men
Healthy value	healthy value	7,41	7,82	6,96
	nutritional value	6,48	6,95	5,94
Sensorial attractiveness	freshness	9,34	9,40	9,27
	taste	9,07	9,20	8,92
	smell	8,51	8,67	8,32
	appearance (look)	5,74	5,74	5,74
Availability	extended expiry date	5,25	5,19	5,32
	unit weight	5,27	5,22	5,33
	cut	5,61	5,59	5,63
	packed	5,38	5,48	5,27
	recognition of the kind	7,05	7,29	6,77
Other	price	6,18	6,13	6,24
	brand	5,44	5,44	5,43

Source: Own research.

Deliberations related to bread features important during its choosing were the basis to conduct the segmentation of bread consumers.

## SELECTION OF VARIABLES FOR SEGMENTATION OF CONSUMERS

In order to conduct the segmentation of consumers, the approach *a priori* was used. The feature of that approach is the selection of criteria of grouping as well as variables profiling defined segments “from above” [Rószkiewicz 2002, Sagan 1998]. As criteria

of conducted segmentation, where the researcher is choosing variables of segmentation by himself, variables which describe the importance of product features (in that case of bread) were used. Among 13 features which were accepted for the research, 10 of them, characterized by the highest variability and of the biggest importance for respondents, were chosen as segmentation variables (Tab. 2).

Table 2. Variables used in segmentation of consumers on the example of the bread

Variables which describe the importance of bread features for consumers during choosing		Variables describing the profile of respondent	
Specification	Description	Specification	Description
▪ Price	price	▪ the size of household	the size
▪ Unit weight	unit weight	▪ sex	sex
▪ Brand	brand	▪ the size of income per one person in household	income
▪ Freshness	freshness		
▪ Packaging (1)	cut		
▪ Packaging (2)	packed		
▪ Recogniton of the kind	rec. of kind		
▪ Nutritional value	nutr. value		
▪ Look	look		
▪ Extended expiry date	durability		

Source: Own research.

The author resigned from following variables of segmentation: healthy value, taste and smell of the bread. Additional criteria of segmentation were variables describing the profile of respondents. Next, the number of segments was identified. Its aim was to group objects in homogeneous segments distinguished on account of criteria selected by the researcher. In order to identify internally consistent groups the method of analysis of concentration was used. From available methods of grouping the units (variables of segmentation) method of k-average was used. The last step in the procedure of segmentation – after isolation of consistent segments – was description of their profiles using criteria of segmentation and the features that characterize consumers (demographical and economical).

## **PRODUCT FEATURES AND SELECTD DEMOGRAPHICAL AND ECONOMICAL FEATURES AS THE BASE FOR SEGMENTATION**

Consumers were divided into 5 segments, which size in the whole surveyed sample was described by the method of k-average. The biggest diversity among concentrations was obtained when 5 clusters were used. So, finally 5 segments were distinguished because of criteria of bread features important to consumers and demographical as well as economical characteristics. Results of grouping are presented on the Figure 1.

On the Figure 1 average value of variables of segmentation was presented in identified segments. Significant differences between average values of variables of segmentation indicate that there are differences in demographical and economical profiles of members

and in terms of importance of bread features. Joining of analyzed variables brought to dividing the surveyed sample into five, internally homogeneous and the most different from other segments, which size is presented on the Figure 2. Presented data indicate that 4 segments were more numerous represented in examined sample. Among them the most numerous was segment 5, were belonged 29% of respondents. To remaining segments no. 1, 2 and 4 belonged appropriately: 23, 20 and 21% of respondents. The least numerous was segment no 5, which consisted of 7% of respondents.

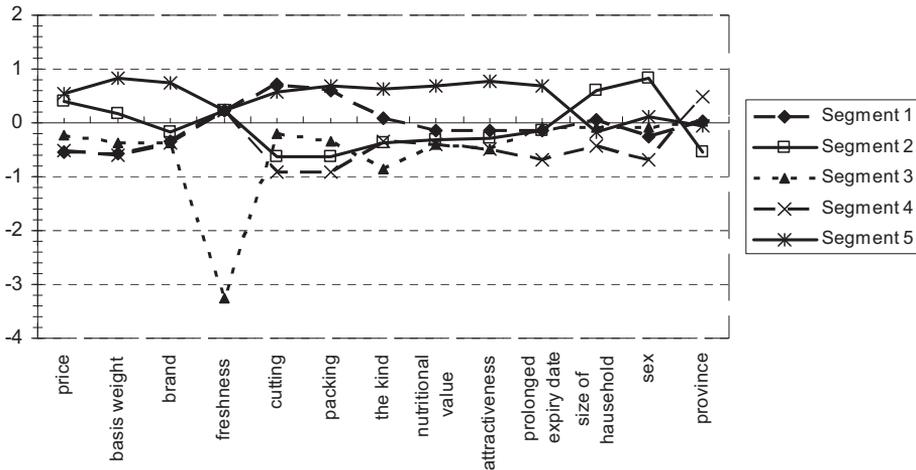


Fig. 1. Standardized values of segments' averages of individual features influencing the choice of bread among consumers  
Source: Own research.

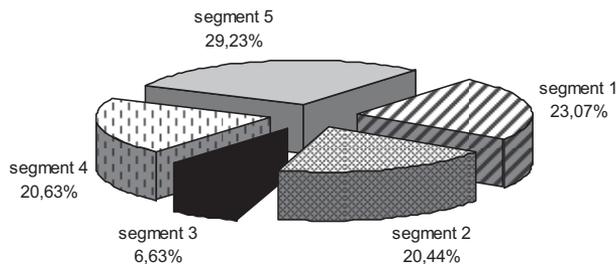


Fig. 2. Segmentation of consumers on account of the features of bread important to the consumer and selected demographical and economical characteristics  
Source: Own research.

In order to achieve complete characterization of distinguished segments, in Table 3 there are collected features of the bread important to consumer and selected demographical variables (sex, the size of household) and economical variables (the size of income per one person in household). Data presented above were used to describe segments. The most important features of each segment were printed using black boldface in Table 3.

Table 3. Differentiation of individual features of bread important to the consumer and selected demographical and economical characteristics in distinguished segments (average value in segments)

	Details	Segments					
		1	2	3	4	5	
Average values of individual bread features important to consumers	▪ nutritional value	6,1	5,5	<b>3,5</b>	5,3	<b>8,5</b>	
	▪ freshness	9,7	9,6	<b>3,8</b>	9,6	9,6	
	▪ look (attractiveness)	5,3	4,9	<b>1,8</b>	4,3	<b>8,0</b>	
	▪ prolonged expiry date	4,9	4,8	4,5	<b>3,1</b>	<b>7,4</b>	
	▪ unit weight (bais weight)	3,7	5,8	5,6	3,6	<b>7,6</b>	
	▪ cut	<b>7,8</b>	3,6	6,6	<b>2,7</b>	7,4	
	▪ packed	7,2	3,5	<b>2,2</b>	2,5	<b>7,5</b>	
	▪ recognition of the kind	7,3	6,0	<b>2,5</b>	6,2	<b>8,7</b>	
	▪ price	4,6	7,4	7,4	4,6	<b>7,9</b>	
	▪ brand	4,6	4,9	3,3	4,4	<b>7,5</b>	
	Demographical and economical characteristics	Average size of household	3,3	<b>4,0</b>	3,3	<b>2,6</b>	3,0
sex		woman	33,42%	<b>13,16%</b>	58,18%	<b>88,12%</b>	48,26%
		man	66,68%	<b>88,64%</b>	41,82%	<b>11,88%</b>	51,74%
Average monthly net income per one person PLN			1128,32	852,64	<b>1096,34</b>	<b>1337,30</b>	1090,92

Source: Own research.

## PROFILING SEGMENTS OF CONSUMERS

Analysis of connections of individual features with distinguished segments allowed the detailed description of consumers' behaviours according to factors taken into consideration during arranging features influencing the choice of bread, what was presented in Table 3.

The last step in segmentation procedure – after distinguishing consistent segments – was description of their profiles by use of features which characterize consumers and their demographical as well as economical position. In order to do that, criteria of comparison of the group average with the general average were used. Profiling of segments with the use of selected variables allowed carrying out their description and characterization, which are presented in Table 4.

Distinguished segments received names on the basis of the presence of dominating features that appeared in each of them:

- Segment I – „*Comfortable*” – because consumers from that segment are described by dominating feature of importance for consumer – packed and cut;
- Segment II – „*Demanding*” – those consumers choose bread by paying special attention to the kind and freshness of purchased bread;
- Segment III – „*Frugal*” – price is the most important feature for them. Achieving high income they do not pay attention to the nutritional value, look or the brand of bread. Perhaps it comes from the fact that consumers often associate the price with the quality. For consumers from that segment price is an indicator of the quality;
- Segment IV – „*Gourmet*” – those consumers pay attention to the kind of purchased bread. What is more, freshness and nutritional value are features that are highly appreciated;

- Segment V – „*Traditionalists*” – consumers from that segment consider all features of the bread as important or very important. Bread characteristics that are dominating here are: freshness, recognition of the kind and nutritional value of purchased bread.

Table 4. Characterization of segments of consumers of the bread

Segment	Characterization of the segment
Segment I	Segment that counts 23.07% of surveyed population. It contains relatively high share of men (approximately 67%). Consumers of that segment value especially freshness of the bread and declare that gladly choose bread that is cut and packed, they pay attention to the kind of purchased bread and its nutritional value. Consumers declare recognition in the borders of the kind. Slightly less important feature for consumers from this segment is the look of purchased bread and its extended expiry date. To the least indicated features influencing the choice of bread one may count price and brand. This segment is formed by on average 3-people households. On average consumers achieve incomes of 1130 PLN per person per month.
Segment II	Segment that counts 20.44% of examined population. The share of men in that segment is over 85%, who as the most important features influencing the choice of the bread indicate its freshness and price. In borders of that segment consumers declare recognition of the kind and pay attention to unit weight of the purchased bread. Further they consider: nutritional value of bread, look and its brand as well as extended expiry date. The least important features for them are packing and cutting of bread. The size of household is bigger than the average of the whole sample. Consumers who create that segment usually represent 4-people households. Average monthly income per one person is the lowest in that segment in comparison to other segments, and is 853 PLN.
Segment III	Segment that counts 6.63% of surveyed population. The smallest segment, where relatively biggest share belongs to women. Leading feature is the price. Relatively important is that the bread is cut and the unit weight is the feature of medium importance. Further consumers from that segment pay attention to the way of preserving bread (its prolonged expiry date), freshness, nutritional value and its brand. Consumers do not pay attention to features related to the look of bread and the packaging during purchasing the bread. Average size of household is 3 people. Consumers from that segment achieve incomes 1090 PLN per person per month.
Segment IV	The size of that segment is similar to the size of segment II. This is the segment that contains 20.53% of examined population. In comparison to segment II, this segment is created mostly by women (over 88%). The most important feature taken into consideration during purchase of bread is its freshness. Relatively important is the kind of purchased bread and its nutritional value, and then price and brand as well as its look. Less important is the fact if the bread is cut and packed. Average size of household is 2,6 people. One may assume that to that segment belong young marriages, singles, and women working professionally. For their work consumers from that segment receive high incomes per one family member, which are on the level of 1340 PLN per month.
Segment V	The most numerous segment that counts over 29% of surveyed sample. The share of men and women is similar. All analyzed features of the bread are actually important to consumer and as features of overriding importance are considered: freshness, kind, nutritional value and the look. Comparatively important is the price. Other features are taken into consideration in further order, but they stand out from other segments with the weight. Consumers pay attention to unit weight and the brand of the bread, gladly choose bread cut and packed of prolonged expiry date. This segment is formed by mostly 3-people households, whose size of achieved monthly income per person is around 1090 PLN.

Source: Own research.

## SUMMARY

On the basis of received results one may notice that the most important features of the bread for consumers are: freshness, taste and smell as well as healthy value, prolonged

expiry date, recognition of the kind, nutritional value and price. Those factors should create the basis for establishing the strategy of product in enterprises. Description of features of the bread important to consumers during choosing the bread is however difficult, because of the variability of individual kinds of bread and relatively short period of time when bread keeps its identical quality on the account of all relevant product features.

It is possible to distinguish five segments of consumers of bread on the account of the bread features important to consumers as well as demographical and economical features (Comfortable, Demanding, Frugal, Gourmet and Traditionalists). The most numerous is the segment of Traditionalists, for whom the most important are following features of the bread: freshness, recognition of the kind and nutritional value. The least numerous segment is the segment of Frugal, where the most important is the price.

In that case there is a possibility to enter by producers or sellers of bread with the offer of their products or to undertake actions which would be related to adaptation of the selected or trade offer according to demands and expectations of consumers who belong to that segment.

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## WAŻNOŚĆ CECH PRODUKTU JAKO KRYTERIA SEGMENTACJI KONSUMENTÓW NA PRZYKŁADZIE PIECZYWA

**Streszczenie.** W artykule zaprezentowano wyniki badań ankietowych przeprowadzonych metodą ankiety bezpośredniej na próbie 1676 osób. Celem zrealizowanego badania była analiza ważności cech wpływających na wybór pieczywa. W efekcie końcowym przeprowadzono segmentację konsumentów, gdzie jako kryterium segmentacji przyjęto ważność cech produktu. Na podstawie uzyskanych wyników stwierdzono, że najważniejszymi dla konsumentów cechami pieczywa są: świeżość, smak i zapach oraz zdrowotność, przedłużona trwałość, rozpoznawalność gatunku, wartość odżywcza oraz cena. Można wyznaczyć pięć grup segmentów konsumentów pieczywa ze względu na cechy pieczywa ważne dla konsumentów oraz cechy demograficzne i ekonomiczne (Wygodni, Wymagający, Oszczędni, Smakosze i Tradycjoniści). Stwierdzono, że w zmiennym otoczeniu marketingowym firm i realiach konkurencji istnieje możliwość wejścia przez producentów czy handlowców pieczywa z ofertą swoich produktów albo podjęcia działań, które byłyby związane z zastosowaniem oferty asortymentowej czy handlowej do oczekiwań konsumentów.

**Słowa kluczowe:** segmentacja, cechy produktu, konsument, pieczywo