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TYPOLOGY OF CONSUMERS' PURCHASE BEHAVIOR ON PASSENGER-CAR MARKET IN POLAND

Introduction

Transformation of economic, cultural, and social changes in Poland contributes to the increasing diversity and heterogeneity in consumer behavior on the car market. The diversity of behavior is observable in both – the purchase and usage of vehicles, it affects the qualitative and quantitative structure of consumption, including the actual market decisions shaped by aspirations, needs, preferences, ways of achieving objectives, cycles of exchange of goods, lifestyles, family model and many others.

Differentiation in consumers' purchase behavior on car market is very interesting area of research and seems to be very significant for Polish economy of 21st century. Intense competition and oversupply of goods offered on market in combination with growing expectations (in relation to standards, quality, functionality) plus economic aspects of market offerings – create favorable conditions for further differentiation of behavior in process of acquisition and exploitation of cars. It is reasonable to conduct the typology of consumers' behavior, which would describe the diversity of behavior of Polish consumers on the car market. Besides that – characteristics of buying process seems to be important part of information, which supports corporate marketing activities in regard to target markets (e.g. in terms of identifying needs, motives, methods and sources of gathering information, evaluation of alternatives, types and models of decision-making process, development of customers' satisfaction and loyalty).

1. Level and structure of car consumption in Poland

General population of consumers of passenger cars in Poland is diverse in terms of demographic and socio-economic criteria. It should be noted that literature and secondary sources study do not provide current, detailed and comprehensive information about the structure of general population of Polish car buyers. However, available sources prove that number of cars in Polish households is steadily growing. At the end of 2010 59.6% of households in Poland (up by 2.2% compared to 2009) had a car. Diversification of household equipment in cars is highly dependent on household's income situation. The richest households are much better equipped with cars than poorer ones. In 2010 among the richest households, 67.4% had a car (and only 10.4% among poorest ones). Geographical diversification of households' car resources has been presented on Figure 1.



Figure 1. Household equipment in cars by regions in Poland in 2010 [%]

Source: Central Statistical Office (2010, p. 13).

Equipment of households in cars is also depending on the place of residence. In Poland, a greater percentage households located in rural than urban areas have a car. Automobiles are exceptions among other durable goods (e.g. computers and mobile phones, electronic devices, and home appliances) which are supplied with a higher proportion of households living in the city than the countryside. This situation results from the rarer public transport network in rural areas. Equipment in cars by place of household residence is presented on Figure 2.

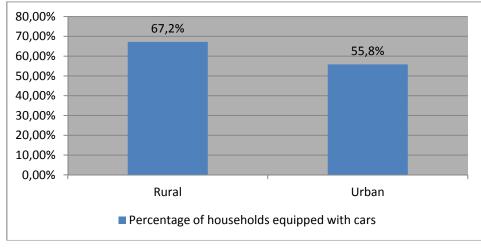


Figure 2. Household equipment in cars by place of residence [%]

Source: Ibid. (p. 12).

2. Methodology of research

The structure of general population of car buyers will change in upcoming years^{*}. In presented paper – structure of research sample includes only diversity in terms of gender and age. In this study 'gender' and 'age' were accepted as demographic characteristics significantly differentiating behavior of car buyers^{**}. The study was carried out in March 2012 *via* online questionnaire. The website has been visited by 934 visitors. 70.5% visitors completed questionnaire, which allowed to obtain 659 indexes for further analysis. The electronic records were verified, material has been collected and controlled. Finally, data have been analyzed on the basis of 600 questionnaires.

In the sample – distribution of respondents by gender was equal – the 300 women and 300 men. In terms of age – number of respondents up to 29 years and above 29 years was also equal. By analyzing the different age ranges, sample presented following values: persons aged 22-29 years (45.7%) and 30-39 years (32%), and aged 60 years and over (2.8%). Due to the criterion of education – 79% of the respondents were holding higher education, and nearly one in five people had secondary education. The share of respondents in each income ranges were comparable. Each income range was approximately represented by 20% of the respondents, while the least were those representing households with monthly income of 5 001-7 000 PLN net (16.7%). Just over 60% of respondents were living in cities of more than 100.000 residents. The second largest group of respondents were persons living in rural areas (13%), followed by the city from 51.000 to 100.000 residents (12.5%). Respondents represented most two-person households and those in which there is 1 child.

3. Results of research and discussion

Research conducted among buyers of passenger cars allowed to demonstrate the homogeneous typological groups. On the basis of distinguished buyers' types, as

^{*} In 2012, 7% of Poles aged 18 years and over planned to buy a car. More than half of them (55%) intended to implement their plans in the next 12 months, 33% during the period from one to two years, and 12% was going to postpone buying a car for the future. More often, men were planning to buy a car (9%) and young people, aged 25-34 years (13%). Majority of Poles were considering buying a used vehicle (90% planned to purchase used car within the next 12 months). Only one in ten has been planning to buy a brand new car (about 10% less than in 2011). The results confirmed the observation that Polish consumers are becoming more cautious in planning brand new car purchase.

^{**} Earlier studies the author conducted lead to conclusion that those two criteria are the most significant differentiation criteria in terms of behavior of consumers in the market of consumer durables, including cars.

well as describing the characteristics of the population – research made possible to define types of actual purchase behavior and decision-making considerations.

The basic criterion for determining the behavioral typology and number of buyers in groups were – importance of: a) economic, b) functional, and c) emotional factors influencing purchase decisions on the car market. However, additional criteria were involved, such as: a) reasons for buying, b) acquiring sources of information, c) financing and place of purchase, d) attitudes towards the purchase of a new car, e) loyalty and satisfaction. Separate models were described by: a) gender, b) age, c) size and household income, d) type of vehicle owned, e) the average number of kilometers per year, and f) the number of cars held by the household.

Table 1. Typology criteria and characteristics of buyers' types in the market of passenger cars

| Typology Criteria | Typology Features |
|---|---|
| Basic criteria: attitudes towards: economic, functional and emotional purchase decision factors. Additional criteria: reasons for purchasing decisions, acquiring a source of market information, financing sources, place of purchase, attitudes towards the purchase of a new car, loyalty and satisfaction with the purchase | gender age monthly household income (net) household size type of car owned average annual mileage number of cars in the household |

Source: Own research.

In order to build the typology it was necessary to distinguish its several criteria, and then to describe the classes, which were created due to the characteristics of buyers. For variables measured on ordinal scales – factor analysis was conducted, which has reduced the original set of variables describing the economic, functional and economic factors to six, uncorrelated with each other. It allowed to simplify interpretations of purchase behavior. Following components were derived: Economic factors:

- an economic factor 1, which is composed of an attractive discount price on cars from the previous manufacture year, terms of financing, the loss of value of the car at time, certainty that technical faults will be removed within the manufacturer's warranty,
- an economic factor 2, which is composed of the retail price of the car, fuel consumption specification, prices of maintenance and cost of spare parts.

Functional factors:

- functional factor 1, which is composed of technical parameters and the type of vehicle body,
- functional factor 2, which is composed of the functionality of the vehicle (e.g. number of doors, trunk capacity), reliability, security, certainty that vehicle features and specifications would meet customer needs throughout the lifespan.

Emotional factors:

- emotional factor 1, which includes: fashion and avant-garde styling, ability to impress others, brand image, brand reputation, certainty that design and model of the car will retain its aesthetic attractiveness over time,
- emotional factor 2, which is composed of family and friends' opinion, sentiment and memories from the past.

However – for variables whose answers were presented in the form of the cafeteria – dummy variables has been created to measure the intensity in accordance with proposed statements. Reduced and scaled – a set of new variables allowed to perform *k*-means clustering, which assumes number of classes equal to four.

In the next step, the mean values were determined for each variable introduced in the *k-means* method, and then referring to the cluster centers for each class the interpretation of each class took place (by reviewing the level represented by the class is below or above the specified cluster centers). Procedure allowed to group respondents due to the criteria of the typology. The last step was a statistical description of separate groups and labeling them according to specific characteristics. Final set of typological groups includes 4 types of buying behavior:

- 1. Young bargains' hunters.
- 2. Staid players.
- 3. Loyal pragmatics.
- 4. Banan rebels.

The 1st type of purchase behavior (represented by a group of 'young bargains' hunters' – 19.7%) is higher propensity to purchase the car from the previous manufacture year if offered with attractive discount. Important is loss of value of the car at time. 'Young bargains' hunters' appreciate the certainty that technical faults will be repaired at certain time within manufacturer's warranty. They assign smallest functional importance to vehicle safety and reliability. They do not rely on sentiment and opinions of others (in acquiring information). They buy a car primarily due to the need to move freely, but often the reason is just 'a proper time for replacement'. They are searching for the information mainly on Internet, as well as buying a car there (usually with a private ad). Although 'young bargains' hunters' are young and with rather average household income – they finance the purchase mostly with their own savings. They are usually not interested in buying a brand new car. 'Young bargains' hunters' are not committed to assessment of current car they use. While they tend to be happy with the car and to like it, they clearly cannot tell whether the car meets their expectations or operating costs are at acceptable level. This type is also uncertain whether they would buy the same model again in the future, and whether they would recommend it to friends and family.

Table 2. Typology of car buyers' behavior in Poland – Type 1 'The young bargains' hunters'

| Type of buyers' behavior | |
|---|---|
| Type I 'YOUNG BARGAINS' HUNTERS' | |
| (19,7%) | r |
| Typology criteria | Buyers' features |
| Attitude towards economic, functional and emotional pur- | Gender: men mostly. |
| chase decision factors – primarily important: | Age: up to 29 years old. |
| • attractive discount on previous manufacturing year cars, | Monthly household income |
| terms of financing, loss of value of the car at the time, | (net): 2 501-3 500 PLN. |
| • certainty that a particular technical defects are removed under | Household size: 2 and |
| the manufacturer's warranty, | 3-persons. |
| • other economic factors, functional and emotional are margi- | Type of car owned : 5-door hatchback or sedan. |
| nalized in decision-making. | Average annual mileage: |
| Reasons to buy: | up to 10 thousand km. |
| • the need of freedom and mobility. Sources of market information: | Number of cars in the |
| Internet. | household: 2 |
| opinion friends and family, | |
| offer at dealerships (used cars). | |
| The way decision is made: | |
| together with family and/or friends. | |
| Way to finance the purchase: | |
| by oneself (with own money). | |
| Place of purchase: | |
| private announcements on the Internet. | |
| Attitude towards the purchase of a new car: | |
| • probably not going to buy another car as brand new. | |
| Loyalty and satisfaction: | |
| • rather pleased with the owned car, | |
| • not committed to purchase the same brand and model again, | |
| • not determined whether to recommend the purchase of the | |
| same car with family and friends, | |
| • not determined whether the vehicle meets their expectations, | |
| • not committed to the running costs are at an acceptable level, | |
| • rather like the owned car | |

Source: Ibid.

Behavior of 'Young bargain hunters' is typical for relatively young buyers (up to 29 years old) – more often men than women. They represent households of 2 and/or 3 persons, with rather low income (2.501-3.500 PLN net). They do not drive much – up to 10 thousand km per year. In their households there are generally two cars (very often 5-door hatchbacks or sedans).

The second type of buyers' behavior are resolute and staid consumers, called as 'Staid players'. They represent the largest group – 30.6% of total population. In this group – purchase of a car is not driven by the price or even discount, terms and conditions of purchase, or loss of value of the car at time. They pay much attention to functionality of vehicle, its safety and reliability. They want both: functionality and design - to meet their needs throughout the lifespan. This type is overrepresented by women, it may be justified by relevance of fashion, styling and prestige of the brand over the opinions of family and friends, and sentiment and memories of the past. They do not pay much attention to fuel consumption, price of maintenance and cost of spare parts. This is the only type that is currently using dealer purchased mainly as a brand new cars and also declaring to buy their next car in the same way. 'Staid players' search for the information at dealerships and then on the Internet. They finance purchase with their savings or bank loan. They are definitely happy with the cars they own, they like it and they accept its costs and functionality. They seems to be loyal customers and ready to buy the same brand and model again as well as recommend it to their friends and family.

| Type of buyers' behavior | |
|--|---|
| Type II 'STAID PLAYERS' (30,06%) | |
| Typology criteria | Buyers' features |
| 1 | 2 |
| Attitude towards the economic, functional and emotional buying decision factors: Primarily important: attractive discount on previous manufacturing year cars, terms of financing, loss of value of the car at the time, certainty that a particular technical defects are removed under the manufacturer's warranty, the functionality (eg. number of doors, boot capacity), reliability, security, certainty that vehicle features and specifications meet customer's needs throughout the lifespan. Reasons to buy: it is the right time to change, the need of freedom and mobility, | Gender: rather women Age: over 29 years. Monthly household in- come (net): more than 7 000 PLN. Household size: 2 and 3 persons Type of car owned: 5-door hatchback. Average annu- al mileage: up to 20 thou- sand km. Number of cars in the household: 2 |

| Table 3. Typology of car buyer | s' behavior in Poland – | • Type 2 'Staid players' |
|--------------------------------|-------------------------|--------------------------|
| | | |

Table 3 contd.

| 1 | 2 |
|--|---|
| Sources of market information: | |
| • new car showrooms, | |
| • Internet. | |
| The way decision is made: | |
| • together with family and/or friends | |
| Way to finance the purchase: | |
| • yourself (with your own savings), | |
| • credit / loan. | |
| Place of purchase: | |
| • new car dealerships. | |
| Attitude towards the purchase of a new car: | |
| • declare to rebuy brand new car. | |
| Loyalty and satisfaction: | |
| • definitely happy with the purchase, | |
| • would re-buy the same brand and model, | |
| • would recommend to friends and family buying the same car, | |
| • owned car meets expectations in terms of functionality, | |
| • the cost of the vehicle is on rather acceptable level, | |
| • like the owned car | |

Source: Ibid.

'Staid players' represent the type of behavior characteristic especially for women. These are the buyer over 29 years, high-income households (more than 7.000 PLN net). They represent 2 or 3 persons' households in which the most common are 2 cars – usually 5-door hatchbacks. They drive 15 or 20 thousand kilometers per year.

The third type of behavior identified in the population are young and economic buyers called 'Loyal pragmatists' (25.1%). This is the only type of behavior determined primarily by price, type and fuel economy as well as price of maintenance and cost of spare parts. For 'Loyal pragmatists' the subsequent operation cost are definitely more important than good purchase price (discount). In addition, other important factor when selecting the car is family and friends' opinion, as well as memories of the past. 'Loyal pragmatists' are not guided by fashion, ability to impress others, nor functionality of vehicle. They gather information about the market mainly researching on Internet, but also discussing with friends. They are not interested in new vehicles, they usually purchase a used cars based on private ad on Internet or import cars for their own. They tend to be loyal buyers with strong satisfaction with vehicle they own and would buy the same brand and model again and recommend it to friends and family. 'Loyal pragmatists' accept the level of costs, as well as car functionality.

Table 4. Typology of car buyers' behavior in Poland - TYPE 3 'The loyal pragmatists'

| Type of buyers' behavior | |
|---------------------------|---|
| Type III 'LOYAL PRAGMATIC | ·S' |
| (25,1%) | |
| Typology criteria | Buyers' features |
| | Buyers' features Gender: men. Age: up to 29 years old. Monthly household income (net): 2 500-5 000 PLN. Household size: 2 and 3-persons. Type of car owned: 2/3 or 5- -door hatchback. Average annual mileage: up to 20 thousand km. The number of cars in the household: 1 |

Source: Ibid.

These behaviors are characteristic rather for young men representing 2 and 3-person households with an average income (from 2 500 to 5 000 PLN) and 1 car (5-door or 3 door hatchbacks). They drive 15 or 20 thousand km. per year.

Last, fourth type of buyers' behavior has been called 'Banana rebels' (24.5%). Their behavior is driven by a wide range of economic, functional and emotional factors. However, it should be noticed that the most important group are subjective factors such as: fashion, avant-garde design, prestige and image of the brand, the ability to impress the others, technical parameters, type of body and accessories. 'Banana rebels' buy a car mainly to increase their freedom of movement and because of 'proper time for replacement'. They are searching for

market information primarily on Internet, but they also take into account opinion of friends and family. More often than other types of buyers – 'Banana rebels' also read automotive publications and magazines. They are financing purchases mainly with their own savings, although most of them is using third party funding (family). Usually they buy a car by a private announcement on Internet and often they are not convinced to buy their next car as brand new one. "Banana rebels" are very satisfied and loyal customers. They are satisfied with the purchase of a car and usually very like it. In general, they declare willingness to renew the purchase of the same brand and model. They are ready to recommend the cars they use to friends and family and they accept the level of maintenance costs and are satisfied with functionality of car.

| Type of buyers' behavior | |
|--|---|
| Type IV 'BANANA REBELS' | |
| (24,5%) | |
| Typology criteria | Buyers' features |
| Attitude towards the economic, functional and emotional buying decision factors. Primarily important: trendy and avant-garde styling, the ability to impress the others, brand image, brand reputation, certainty that design and model will retain its aesthetic appeal, technical parameters, the type of body, accessories. Reasons to buy: the need for freedom of movement, it's just time to replace the car. Sources of market information: Internet, opinion of family and friends. The way decision is made: together with family and/or friends. Way to finance the purchase: yourself (with his own money). Place of purchase: private announcements on the Internet. Attitude towards the purchase of a new car: probably not going to buy another brand new car. Loyalty and satisfaction: definitely happy with the owned car, would buy again the same brand and model, would recommend to friends and family buying the same car, owned car meets expectations in terms of functionality, the cost of the vehicle is rather on acceptable level, like the owned car a lot | Gender: men. Age: rather young (up to 29 years old). Monthly household income (net): irrelevant. Household size: 2 people Type of car owned: 5-door hatchback or sedan. Average annual mileage: up to 20 thousand km. The number of cars in the household: 2 |

Table 5. Typology of car buyers' behavior in Poland - Type 4 / 'Banana rebels'

Source: Ibid.

'The banana rebels' purchase behavior have been identified mainly in the group of young men. Income does not seem to vary purchasers of this type. Most of them represent households of 2 persons, supplied with 2 cars (generally 5-door hatchbacks or sedan) and they drive 15 to 20 thousand km per year.

To conclude – dominant type of behavior on the car market is 'Staid players' (30,06%). These are buyers, who more often than other types choose brand new vehicles and probably not going to change this buying model in the future. Their steadiness is reflected in attaching the utmost of all types importance to safety, uptime and functionality of a car. They are also often driven by discount, terms and conditions of purchase or the loss of value of the car at time. However, they the least of all types are driven by purchase price and the costs associated with exploitation (fuel consumption, fuel costs, maintenance and spare parts). Also the importance of subjective factors, such as fashion, prestige, and the ability to impress the others is noted as typical for 'The staid players'. In comparison to other types, 'The staid players' more often than other types use loans when buying a car, which could be justified by their age and the fact that they are buying mostly brand new cars (therefore more expensive). Access to bank credits is relatively easy for them, due to high income they gain. 'The staid players' declare 'right time to exchange' to be main reason for buying a new vehicle, while other types of consumers purchase a car mainly because of need to increase own independency and to move freely. In comparison to other types of behavior they rarely use Internet and opinions of friends and family as a source of market information, while most derive knowledge from new car dealerships. Behavior characterized by the lowest satisfaction and loyalty rate is type I ('Young bargains' hunters'). These are the youngest buyers demonstrating the most limited budgets. Crucial decision factor for them are: discount, price, financing conditions, loss of value of the vehicle at time and certainty that technical failures would be repaired under manufacturer's warranty. This group is searching private ads on Internet and quite often buy new cars from showrooms and dealers' network. Type III ('Loyal pragmatists') behavior is determined mostly by objective factors when choosing a car, such as: price, type and fuel consumption, costs of maintenance and spare parts.

Full range of economic, functional and emotional drivers could be extracted from type IV ('Banana rebels') behavior. These buyers pay special attention for subjective factors, such as: fashion, avant-garde design, prestige and brand image, ability to impress the others and technical parameters of vehicle, body type and accessories. Figure 3 presents the typological map of car buyers behavior in Poland.

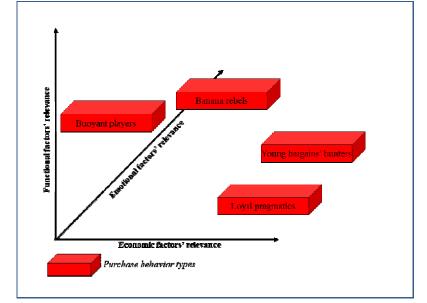


Figure 3. Typology of consumers' purchasing behavior on car market in Poland – relevance of economic, functional and emotional factors

Source: Ibid.

Recognition of presented typology may be important at both: epistemological and utilitarian standpoint. The research supports this view and conclude that individual behavior can affect consumers' purchasing power in a very different way to certain areas of the automotive industry, on both sides: production and trade and services, and therefore have a high utility and application value.

Qualitative information regarding types of car buyers' behavior is mainly used in three intersecting business areas, such as:

- marketing and advertisement activities of automotive industry,
- market research projects conducted on automotive market by institutions and monitor agencies,
- legislative and regulatory activities of state authorities.

Typology of car buyers' behavior could be key data resource supporting strategic marketing planning in automotive industry, including all stages of the supply chain, as well as wide range of complementary goods and services.

In cross-industry approach – presented typology could be very important area influencing various stages of car consumption chain – starting from production, distribution of vehicles and components (primary and secondary market as well) – to market complementary services, such as maintenance of vehicles, additional equipment, collision repairs, electronics, financial services (mainly insurance, credit and leasing) and many others.

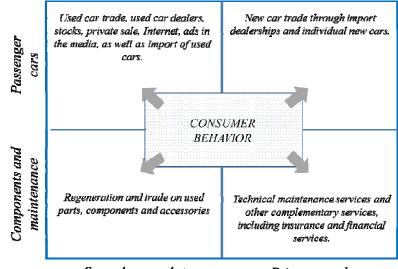
Buyers' behavior typology in automotive industry is also useful due to the fact that the majority of purchase decisions involve a specific configuration of economic and non-economic factors, which consequently results in forming certain types of behavior – different in terms of scale, proportion and impact of these groups of importance variables for final purchase decisions.

Formed in this way, a certain kind of consumer behavior code states a solid basis to extract relevant profiles of market behaviors demonstrated by consumers who: - purchase cars differently,

- are driven by individual attributes of the vehicles,
- pay various attention to price/value ratio and finally
- rebuy cars in different exchange cycles.

Secondary data analysis and results of primary studies on car buyers' behavior typology lead to conclusion that diverse buyers' behavior do not stay without influence on whole Polish automotive sector. It should be noted that one of the most important manifestations of impact of certain consumer behavior on automotive sector is the nature of attitudes towards economic, functional and emotional determinants of purchase of vehicles reflected in almost every individual decision made on secondary and primary market of cars, goods and services related with consumption complementary to vehicles. Areas of impact of consumers' behavior types on automotive sector has been illustrated in Figure 4.

Figure 4. Areas of impact of consumers' behavior on automotive sector



Secondary market

Primary market

Source: Ibid.

All marketing activities are focused on consumer, his needs and behaviors. The effective company operation on car market requires balanced approach to marketing tools, including product, distribution, promotion, and pricing. The impact of specific types of behavior on business and and marketing in automotive sector is therefore primarily seen in areas such as:

- segmentation,
- product policy,
- the price management,
- distribution strategy of goods and services,
- promotion and market communication strategy.

Usefulness of knowledge about car buyers' profiles and factors influencing their behavior begins at the stage of identifying potential target markets and is used throughout the whole process of delivering optimal product to the market. This knowledge allows to answer many key questions emerging in regard strategic and operational marketing activities. Table 6 presents examples of potential application areas for car buyers' behavior typology.

| Application areas | Key aspects |
|-------------------|---|
| 1 | 2 |
| Segmentation | Which behaviors are determined mainly by economic variables, and which by non-economic? What is the socio-demographic characteristics of each group of consumers? What is the lifestyle and personality trait in different types of consumer buying behavior? How to describe decision process in different groups of buyers? How do consumers of relevant groups use vehicles? What factors have the greatest impact, and which discourage purchase decision? What are the patterns of consumption of cars and complementary services? |
| Product policy | What benefits consumers expect to achieve in each type? How to position a brand and product relative to competitive offers? What functional and non-functional attributes car should have to attract consumers? How do consumers value certain attributes of a car and how they evaluate them? How evolves satisfaction and loyalty to the product, brand, car dealer, as well as complementary services? What is the optimal time of use and rebuy (replacement) cycle? |

 Table 6. Application of knowledge about typology of consumer behavior in specific business areas of marketing in automotive market

| \mathbf{I} abit $\mathbf{U}_{\mathbf{i}}$ to $\mathbf{U}_{\mathbf{i}}$ | Table | 6. | contd. |
|--|-------|----|--------|
|--|-------|----|--------|

| 1 | 2 |
|---|---|
| Pricing | What are the product attributes that consumers are willing to pay higher prices for? Which elements of the offer are perceived as standard, and which can be included into added value pack? What is profitability of particular products and consumer segments? How to express a willingness to pay and price elasticity for each type of consumer behavior? What pricing models are appropriate for different types of consumer behavior? |
| Sales and distribution strategy | Where buyers make purchases (primary market, secondary market)? Which buyers prefer certain places and ways to buy a car? What buyer pay special attention to when searching for place to buy a car? What should be the optimal selling technique and standards of customer service at point of sale? What is the preferred method of payment (financing) for buyers of vehicles? |
| Promotional strategy and market communi- cation | What is the optimal approach to advertising? What are the best marketing communication channels for different target markets? On which values should the communication be based on at different groups of consumers? What constitutes satisfaction, loyalty and restitution demand for cars? What communication values correspond to the psychographics and lifestyle behaviors to each type of car buyers? |

Źródło: Ibid.

Conclusions

Typology of consumer behavior can be the basis for product segmentation and ultimately serve as a guideline for framework product policy. Demographic, psychographic and socio-economic groups of typological criteria can also be used as a sufficient criteria for a complete market segmentation, and thus create a 'road-map' for diversified portfolio of complementary goods and services to the passenger car market. With behavioral typology – companies are able adjust the product more accurately to expectations, lifestyle, purchasing power, preferences, and needs of final costumer.

Typology of behavior seen as non-homogeneous structure due to economic factors (income, prices, costs) is also an excellent material for comparative output and management decision-making process in area of pricing, mainly: price positioning, tactical discounting, loyalty programs and periodic (seasonal) price promotions. Typology of behavior also provides a number of additional parameters in the business. Using knowledge of the typology, companies are able to estimate the potential profitability in certain business groups by manipulating data on the size of different submarkets, average, accepted price levels, and average, expected set of product attributes. These analysis, combined with competition analysis and research on business environment allow to make better decisions about marketing strategy in general.

References

- Aldenderfer M.S., Blashfield R.K. (1984) : Cluster Analysis Quantitative Applications in the Social Science. Sage Publications, London.
- Antonides G. (1990) : The Lifetime of a Durable Good: An Economic Psychological Approach. Kluwer Academics Publ., Dordecht.
- Antonides G., van Raaij W.F. (2003): Zachowanie konsumenta podręcznik akademicki. Wydawnictwo Naukowe PWN, Warszawa 2003.
- Arndt J. (1986): Paradigms in Consumer Research: A Review of Perspectives And Approaches. "European Journal of Marketing", No. 20/8.
- Assael H. (2002): Advances in Applied Consumer Behavior: A Market Segmentation Paradigm. In: Essays by Distinguished Marketing Scholars of the Society for Marketing Advances. Ed. by G.A. Woodside, E.M. Moore. Emerald Publ., Vol. 11.
- Bon J., Pras B. (2001): Rozdział ról nabywcy, płacącego konsumenta. In: Zachowanie konsumenta – koncepcje i badania europejskie. Ed. by: M. Lambkin, G. Foxall, F. van Raaij, B. Heilbrunn, Wydawnictwo Naukowe PWN, Warszawa.
- Cathelat R., Wyss R. (1989): A New Segmentation Tool for Marketing in The 90s: The Socio-Styles System. ESOMAR 42nd Conference, Stockholm.
- Central Statistical Office (2010): The Situation of Households in 2010 in the Light of Households' Budget Survey. Report, Warsaw.
- DeSarbo W.S., Caroll J.D., Clark L.A., Green P.E. (1984): Synthesized Clustering a Method for Amalgamating Alternative Clustering Bases with Differential Weighting of Variables. "Psychometrika" No. 49.
- Domański H. (2002): Główne kierunki zmian w strukturze społecznej. In: Wymiary życia społecznego. Polska na przełomie XX i XXI wieku. Ed. by M. Marody. Scholar, Warszawa.
- Eurostat, http://epp.eurostat.ec.europa.eu/portal/page/portal/transport/introduction.
- Flink J.J. (1988): The Automobile Age. MIT Press, Cambridge.
- Foxall G.R. (2001): Model kupowania i konsumpcji z perspektywy zachowania konsumenta, czyli od teorii zachowania konsumenta do praktyki marketingowej. In: Za-

chowania konsumenta – koncepcje i badania europejskie. Ed. by M. Lambkin, G. Foxall, F. Van Raaij, B. Heilbrunn. Wydawnictwo Naukowe PWN, Warszawa.

- Gatnar E., Walesiak M. (ed.) (2004): *Metody statystycznej analizy wielowymiarowej w badaniach marketingowych*. Wydawnictwo Akademi Ekonomicznej, Wrocław.
- Instytut Badań Rynku Motoryzacyjnego SAMAR, www.samar.pl.
- Jajuga K., Sokołowski A., Bock H.H. (ed.) (2002): *Classification, Clustering and Data Analysis.* Springer, Heidelberg.
- Kędzior Z., Karcz K. (1998): Modele zachowań gospodarstw domowych i przedsiębiorstw (2000-2010). Wydawnictwo Akademii Ekonomicznej, Katowice.
- Kieżel E. (ed.) (2004): Racjonalność konsumpcji i zachowań konsumentów. PWE, Warszawa.
- Niestrój J. (2002): Determinanty popytu restytucyjnego na rynku samochodów osobowych w Polsce. In: Marketing, metody i techniki badawcze. Ed. by Z. Kędzior. Wydawnictwo WSB, Dąbrowa Górnicza.
- Niestrój J. (2006): Samochód osobowy jako produkt marketingowy i przedmiot konsumpcji – próba identyfikacji. In: Marketing. Ed. by D. Surówka-Marszałek. Wydawnictwo KSW, Kraków.
- Organisation Internationale des Constructeurs d'Automobiles (OICA), http://oica.net/.
- Polski Związek Przemysłu Motoryzacyjnego, http://www.pzpm.org.pl/.
- Raport branży motoryzacyjnej 2011 (2011). Polski Związek Przemysłu Motoryzacyjnego, KPMG i Baker & McKenzie, Warszawa.
- Smyczek S. (2007): Modele zachowań konsumentów na rynku usług finansowych. Wydawnictwo Akademii Ekonomicznej, Katowice.
- Światowy G. (2006): Zachowania konsumentów determinanty oraz metody poznania i kształtowania. PWE, Warszawa.
- Top 50 (2010): Raport Instytutu Badań Rynku Motoryzacyjnego Samar.

GUS (2011): Transport – Wyniki działalności w 2010 roku. Raport. Warszawa.

Worldometers, Real Time World Statistics. http://www.worldometers.info/cars/.