

SEGMENTATION OF GARAGES BY THEIR NEEDS AND REQUIREMENTS CONCERNING THE LEVEL OF COOPERATION WITH CAR OIL DISTRIBUTORS

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Abstract

Supply chains and networks require optimization of mutual cooperation between their members. An important tool for making mutual cooperation between supply chain members more effective is segmentation of distribution elements by their requirements concerning the way and intensity of mutual participation in car oil distribution. This paper presents the outcomes of a survey aiming to segment garages as one of important members of a car oil supply chain by their different needs and requirements concerning the level of cooperation with car oil distributors. Garage segments identified by the research show absolutely different preferences concerning different areas of cooperation with distributors, which means they require a completely specific approach from the point of view of distributors. Without any doubt, the research outcomes are practically applicable in management of mutual cooperation within car oil distribution to various garage segments to maximize the value for all involved parties.

Keywords: Segmentation by needs, car oil supply chain, distribution channel management, garages

1. INTRODUCTION

In current markets, individual stand-alone companies cease competing with each other and there is a competition arising among entire value (distribution) chains. [1] As Jakubikova [2] asserts, the success of all members of distribution chains depends on the mutual cooperation since joint efforts within the distribution route help everyone. Thanks to this cooperation, a number of business risks are eliminated [3]. The optimization of mutual cooperation thus becomes a prerequisite for success. Companies with the best relationship management in the value chain have higher profits, thanks to an increased customer value and cost savings. But also the whole chain becomes more flexible and allows for faster adaptation to changing requirements of its customers [4]. A modern trend contributing to increasing the efficiency of relationship management in B2B markets or within distribution chains is the so-called multistage market segmentation [5]. This relatively new approach recommends performing segmentation not only with direct customers (purchasers), but reflecting the needs at each market level (i.e. with customers' customers) and thereby looking for opportunities for further growth and more effective cooperation within the value network.

2. THEORETICAL BACKGROUND

Segmenting the market according to needs, i.e. identifying and profiling various groups of purchasers that differ in their needs and wishes, is the basic pillar of the so-called targeted marketing, which is the most effective principle of operating in today's hyper-competitive markets.[6] It is a differentiated work with the market where, based on conceptual market segmentation, an enterprise optimizes its capabilities and resources and chooses only those customer segments where it can achieve competitive advantage by adapting all elements of the marketing mix, and thus creating an extraordinary, unique value that is required by the very segment of customers.

According to Bouckova [7] and Koudelka [8] the essence of market segmentation can be expressed as a process of finding and identifying such groups of customers, segments,

that meet two basic conditions:

- the homogeneity condition - customers within the segments are very alike s in terms of their market manifestations in the given market;
- the heterogeneity condition - the segments are very different in terms of their market manifestations in the given market.

A market segment can then be defined as a group of customers who are likely to have the same value needs, interests, requirements, revenues, behaviours and qualities, and thus respond in a similar way to the marketing tools used Kotler and Armstrong [9], Kasik and Havlicek [10], Vastikova [11].

It is obvious that statistical segmentation tools such as factor and cluster analysis can be used to reveal market segments, but the managerial usability of segmentation in practice requires the development of an entire segmentation process, which according to Lostakova [12] can be divided into the following steps:

1. Identification of segmentation variables (i.e. customer characteristics that are the reason for different customer requirements).
2. Evaluation of segmentation variables according to their importance and selection of suitable segmentation variables for market segmentation.
3. Implementation of market segmentation.
4. Development of the profile of individual segments according to the level of segmentation variables and the characteristics of individual customers, including their requirements and preferences.

This segmentation process can be used on both consumer and industrial markets. Segmentation of purely industrial (i.e. B2B) markets was studied in 1974 by Wind and Cardozo [13]. In their work, the authors recommend splitting segmentation in industrial markets into two phases. The first phase is the implementation of macro-segmentation, i.e. the grouping of organizations into homogeneous groups only on the basis of filmographic (demographic) characteristics. The second phase is the so-called micro-segmentation, which represents the division of macro-segments into smaller micro-segments based on similarities and differences between the individual operating units. This segmentation of B2B markets is also recommended by, for example, Bonoma and Shapiro [14], Harrison and Kjellberg [15], Lošťáková [16]. This classification of segmentation variables was first introduced by Bonoma and Shapira [14], but a number of contemporary authors based their work on it, such as Pelsmacker et al. [17], Kotler and Keller [6].

Table 1 Main segmentation criteria according to Bonoma and Shapira [14]

MACROSEGMENTATION	
Segmentation criteria	Segmentation variable
Demographic(firmographic)	Industry, size of company, location
MICROSEGMENTATION	
Segmentation criteria	Segmentation variable
Operating	Technology, user/nonuser status, customers' abilities
Purchasing	Organization of purchase, structure of power, character of current relations, purchasing policy, purchasing criteria
Situational	Urgency, specific use, size of order
Personal	Similarity of purchaser and seller, attitude to risk, loyalty

The above-defined classical segmentation approaches recommend that segmentation be performed with direct customers and find an optimal level of coordination, cooperation and interrelation for each customer

group (segment) defined. Some authors, such as Geiger et al. (2015), however, point out that the situation in the B2B markets is more complicated. These are the so-called multistage markets where it is necessary not only to deal with direct buyers but also with customers' customers. The issue of multi-tiered relationships was studied by, for example, Wuyts et al. [19], who found that immediate (direct or dyadic) relationships can be regarded as fundamental, but they are inadequate to describe the entire network of relationships forming the market structure. In their view, at least three levels of relationships (or triadic relationships) should be the focus of analyses. This idea was elaborated by Tang and Mantrala [20], who propose a three-dimension approach to the B2B segmentation, which includes customers' customers as well. In essence, their approach takes into account:

- Purchasing behaviour of the purchasing company and other characteristics (customer on the first level);
- Goals of the purchasing company or benefits that the purchasing company expects from the purchased product;
- Characteristics of the purchasing company's customers (customer on the second level), including their needs, attitudes and behaviours.

This issue is further developed by Thomas [5], who proposes the segment alignment in multistage markets (see **Figure 1**).

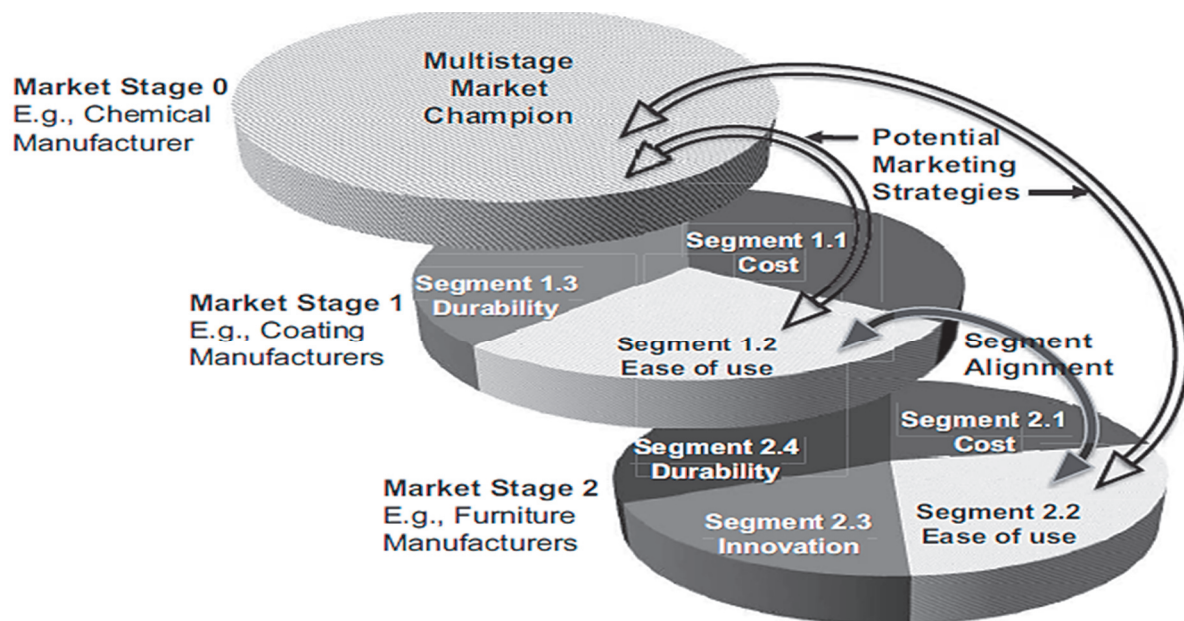


Figure 1 Segment alignment in multistage markets Thomas [5]

Figure 1 shows the segment alignment concept using the example of the chemical products market. Thomas suggests that the primary producer of chemicals not only perform the segmentation according to the needs of its immediate customers producing coating compositions, but also identify the needs and demands of the end users (furniture manufacturers) and segment this market as well. The author argues that the similarities identified between the segments may have both conceptual and managerial implications for achieving a competitive advantage and for a more efficient allocation of resources. It is possible to agree with the claim that the figure is very simplified because it does not include many other members of the value network, but it is a suitable outline of the issue. According to the author, the research and research methods in this area are still developing and will require a gradual learning about of these complex market structures so that there is a more complete understanding of these processes and a better direction of managers' thinking.

3. METHODOLOGY AND RESULTS OF PRACTICAL RESEARCH

The idea of suitability to conduct segmentation on several levels of the market was also elaborated by our research, which was aimed at exploring the situation within the distribution chain of car oils (or motor oils). It is clear that the manufacturers of motor oils (0th market level) use several distribution channels to distribute them, and some of the direct customers are distributors, which could be called the 1st market level. We focused on the segmentation of garages (or car repair services) as another major distribution link of motor oils (2nd market level), identifying segments according to their needs and requirements for the level of cooperation with the distributors of motor oils. We believe that the research results are beneficial both for distributors and for producers of motor oils because there are strategic directions clearly outlined here to effectively manage the distribution channels of motor oils.

From the point of view of classical theory of segmentation of B2B markets, it is a micro-segmentation in our case where car repair shops in the East Bohemian region (mostly up to 1000 repaired cars per year) were chosen as a macro-segment. To perform segmentation, a systematic approach of inductive segmentation was used (see Bouckova [7], Koudelka [8]). Factor analysis was used to cover important criteria, and segments were revealed using cluster analysis. Since the respondents did not use the full scale, it had to be transformed before performing the factor analysis. [21]

The primary research involved data collected from 52 respondents and was processed in the framework of a thesis by Hejnova [22]. The data were processed using the statistical software of IBM SPSS Statistics, version 23.

In order to identify the specific segments of car repair shops according to their ideas of cooperation with the distributors of motor oils, a two-stage cluster analysis was used. Usability of the model was tested for various factors identified in the factor analysis. The best results were achieved using the following three factors:

- Factor 1 can be referred to as "**Collaboration to Get New Customers and in Intangible Customer Bonuses**".
- Factor 2 can be referred to as "**Collaboration in Supply and After-Purchase Services Associated with Motor Oils**".
- Factor 3 can be referred to as "**Collaboration to Promote and Enhance the Image of the Car repair shop**".

The program automatically offered 2 clusters with a fairly good quality of the model. The two clusters or segments obtained were then described more specifically. It was found that Segment 1 comprises 46 percent of the respondents and Segment 2 comprises 54 percent of the respondents.

Based on the identification of the so-called centroids of clusters, it is obvious that Factor 1 has the greatest impact on the segmentation. This factor is very pronounced in Segment 2 while being the least influential in Segment 1.

In order to identify the structure of the segments in terms of their perception of the benefits of the various fields of cooperation with the distributors of motor oils, a necessary step was to analyze the differences between the segments. This analysis of the differences was carried out within all the initially identified areas of cooperation, regardless of their relevance to the individually identified factors. The differences were tested based on the median of the responses obtained in the individual segments. These evaluation median values calculated for individual areas of cooperation with the distributors of motor oils within the identified segments are documented in **Table 2**.

Table 2 Medians of the evaluation of individual areas of cooperation with distributors within segments

Form of cooperation	Cluster		
	1	2	Total
1. Checking the quality of the delivered motor oils:	2	3	3
2. Information support for car repair shop staff:	5	3	4.5
3. Mode of the JIT deliveries of motor oils:	3	2	2
4. Ensuring transport of products:	3	3	3
5. Solving the claims:	3	4	4
6. Disposal of used motor oils:	1	4	3
7. Removal or disposal of empty packaging:	1	4	3
8. Promotion of motor oil brands:	4	5	5
9. Acquiring new customers for the car repair shop:	2	6	5
10. Collaboration and participation in discounts on motor oils:	5	5	5
11. Cooperation and co-financing of competitions for customers of the shop	1	5	4
12. Cooperation and co-financing of events for car repair shop customers:	1	5	3.5
13. Provision of small promotional items	3	6	5
14. Collaboration on loyalty programs for car repair shop clients:	1	5	4
15. Cooperation on the interior furnishings of the car repair shop, assistance and support of high-quality technical equipment of the shop	2	5	4
16. Promotion of the image of the car repair shop:	5	5	5

Note: Scale from 1 – highly unbeneficial to 5 – highly beneficial

The statistical significance of the median differences in the individual segments and the whole set of respondents was further tested by a median test, and subsequently the identified segments were described only by variables with statistically significant differences.

Segment 1 is characterized by a very low rating of importance of all areas of co-operation with the distributor that appear to be statistically significant for the description of the segments. This segment does not consider the areas of collaboration with the distributor to be important for acquiring customers or creating positive relationships with them. The following are the least important ones for the car repair shops included in this segment: *disposal of used motor oils*, *removal or disposal of empty packaging* and *co-financing of events for car repair shop customers*. The members of Segment 1 consider collaborating in *provision of small promotional items* to be somewhat more important, but this importance is insignificant compared to the second segment. This segment considers *information support for car repair shop staff* to be the most important area of cooperation with distributors, the rating is even higher here than in Segment 2. Other important areas are: *collaboration and participation in discounts on motor oils* and *promotion of the image of the car repair shop*.

Segment 2, on the other hand, is characterized by a relatively high rating of importance for all areas of cooperation with the distributor that are statistically important for the description of the segments. It is thus clear that the members of the given segment consider areas of cooperation to be quite important if they want to acquire a new customer or maintain a positive relationship with the customer. The most important for this segment is cooperation in *acquiring new customers for the car repair shop* and cooperation in *provision of small promotional items*. Less important for this segment is cooperation in *disposal of used motor oils* and *in removal or disposal of empty packaging*. The least important for this segment is cooperation with distributors in the *mode of the JIT deliveries of motor oils*. The importance of this variable is viewed similarly by Segment 1, which was also demonstrated statistically.

4. CONCLUSION

The aim of our primary research was to show possible ways to streamline mutual cooperation between individual distribution links within the distribution route of motor oils. Two segments of car repair shops have been identified that show a different desire to cooperate within the distribution route and therefore require a different approach from the point of view of distributors and manufacturers of motor oils. It can be said that the market is slightly dominated by small car repair shops that are in Segment 2, for which cooperation with

distributors is valuable, particularly in some areas. An interesting follow-up research would probably be making a more detailed segmentation of distributors of motor oils according to their needs for cooperation with motor oil manufacturers. This might reveal interesting strategic options for improvement within the multi stage market with motor oils.

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