

University of Economics, Prague
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Title of the Master's Thesis:

**Methodology of B2B Customer Segmentation
in the Utilities on the Czech Market:
Tool for Customer Classification into Segments**

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Declaration of Authenticity

I hereby declare that the Master's Thesis presented herein is my own work, or fully and specifically acknowledged wherever adapted from other sources. This work has not been published or submitted elsewhere for the requirement of a degree programme.

Prague, 22 August 2011

Signature

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Abstract:

Loyalty, improvement, better understanding of customers – all these notions attract the interest and striving for improvement of many managers. The segmentation has become an indispensable part of path from a company to customers. Dividing market into distinctive groups allows a company to target customers in a better way. The energy industry in the Czech Republic is an example where the segmentation methodology is not working clearly, so entire organisations become disoriented as an effect of not clear B2B customer division. As there are not so many segmentation tools that would be made exclusively for an energy company, I decided to study this field and design a new one.

In the first part, I will look into the energy industry specificities and functioning of the electricity market in order to understand the specifics of this industry on the Czech market. By looking into segmentation methods, particularly in the area of B2B, the important assumptions of the correct and effective segmentation will be discovered.

In the second part, I applied the knowledge from the theoretical framework where the basic knowledge about the B2B market and the segmentation in this area were introduced. Moreover, the most appropriate variables of segmentation were grouped in the logical way. This knowledge will be used as a base for the creation of new segmentation methodology and application of the knowledge gained from the extensive research conducted abroad.

All in all, the ultimate goal of my work is to create the new advanced segmentation methodology tool and to propose how the most suitable solutions can be designed.

Key words:

Segmentation, B2B market, energy industry, methodology

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List of Abbreviations

| | |
|------|---|
| B2B | Business-to-business |
| B2C | Business-to-consumer |
| CEO | Chief executive officer |
| CFO | Chief financial officer |
| CIO | Chief information officer |
| COO | Chief operating officer |
| EPRI | Electric Power Research Institute |
| EU | European Union |
| FMCG | Fast moving consumer goods |
| GE | General Electric |
| KAM | Key account manager |
| NACE | Statistical Classification of Economic Activities in the European Community |
| SME | Small and medium enterprises |
| TSO | Transmission system operator |
| VALS | Values, Attitudes and Lifestyles |

Introduction

Loyalty, improvement, better understanding of customers – all these notions attract the interest and striving for improvement of many managers. The desire to understand a customer is nothing new. This effort began gaining importance several decades back when companies realized that unless they understand their customers, they could lose the market. The effort to understand the market is not an easy task. Every step of the process needs to be carefully thought through for the best possible results. In any case, segmentation has become an indispensable part of path from company to customers. Dividing market into distinctive groups allows company to target customers in the better way. Nevertheless, the segmentation is present in the company processes, but the importance and the right methodology of this tool was not still developed to its full use.

The energy industry in the Czech Republic is an example where the segmentation methodology is not working clearly so entire organisations are becoming disoriented as an effect of not clear customer division. Defining energy industry as business-to-consumers and business-to-business sector opens up to two new concepts. The focus aims just on the business-to-business sector since the methodology of segmentation in this area is less developed.

Simply put, the term business-to-business sector can be defined as relationship between two companies where products, services are used for their needs and where the final consumers are excluded. B2B segmentation enables a company to find an effective marketing strategy, leading to competitive advantage in the market place. Let's return back to the energy industry, since it has some special features as tendency to monopoly, energy as necessary good or price insensitivity of customers. As there are not so many segmentation tools that would be used by energy company, I decided to study this field and design a new one.

However, the need for effective segmentation is evident, there are some challenging tasks in front of us, namely finding the appropriate form and way of methodology on the B2B market. What is the best segmentation methodology for energy industry? Why it is important to segment in B2B? What are the specifics of B2B segmentation? Which barriers can we meet when wanting to segment effectively? Is it possible to create a new model with precise numerous criteria and clear evaluation making decisions? Could this new methodology enable us to make segmentation easier? These dilemmas will be presented and the answers towards the ideal segmentation methodology will be sought.

Partial output of this thesis should be recommended form of new segmentation methodology, taking into account the actual needs of the energy industry in the Czech Republic. Selection of the new methodology will offer us a new question: how to deliver to customers the products and

services tailored to their needs format? What should be an effective segmentation tool, which would fulfil the requirements of providers of energy and can effectively segment the market?

Firstly, I will look into the energy industry specificities and functioning of the electricity market to understand the specifics of this industry on the Czech market. By looking into segmentation methods, particularly in the area of B2B, the important assumptions of the correct and effective segmentation will be discovered.

When the essential characteristics of effective customer segmentation are defined, then the question of application of these principles into the concrete methodology is raised.

Firstly, it is necessary to examine whether there were developed any assessment tools for B2B segmentation prior to this work, which could be updated or used directly for practical part. Here, I discovered a segmentation model created by the Electric Power Research Institute that logically, clearly, objectively and comprehensively describes the segmentation options in the energy sector. This resulted in my main concern and goal to create segmentation methodology for B2B energy sector customers. So as my main goal in the practical and analytical part, I have set to develop new methodology for energy sector, taking into account elements from the EPRI model.

Unfortunately due to limitations of the thesis' span and the final application on the product and services, the adaptation of model is narrowed only to the energy sector in the Czech Republic. Object of evaluation is specifically selected the CEZ Group, which functions as the major Czech energy supplier of energy with the largest range of products and services.

Secondly, I applied the knowledge from the model of Electric Power Research Institute into the part where the basic knowledge about the B2B market, the segmentation in this area as well as the most appropriate variables of segmentation were introduced in the logical way. In other words, a substantial part of my master thesis is based on the creation of new segmentation methodology and application of the knowledge gained from the extensive research conducted abroad. Interviews with experts, case studies, researches from this area, and reports on segmentation were used as resources of my thesis. All sources were applied to the content that all claims were supported by objective arguments.

The final result of my thesis is the advanced segmentation methodology tool. This tool enables easy understanding of the B2B customer segments of the energy supplier that is expressed by a single number that shows by how many percentages the customer meets the characteristic of the model segment. At the same time, this model segmentation group has allocated the basic needs

of the customer and the most appropriate products and services. Thus, the energy supplier has an opportunity not just to segment their customers, but also to assign the needs and requirements to this customer group.

My diploma thesis does not aim to be completely exhaustive and immutable exhaustive customer segmentation based on the statistical sample recovery for energy industry. This area is relatively new and not developed from the point of view B2B segmentation, so the main effort of this thesis is concentrated on the justification of need for segmentation methodology, summarizing the current energy industry segmentation both abroad and in Czech Republic and preparation of the pilot version of evaluation segmenting model that would be applicable universally to other energy companies in the Czech Republic and hence abroad. This tool should serve for the inclusion of the current energy suppliers' B2B customers into different segments and provide them with the most appropriate products and services.

Research question

“Finding the most revealing way to segment a market is more an art than a science... Any useful segmentation scheme will be based around the needs of customers and should be effective in revealing new business opportunities.”

Peter Doyle¹

This thesis’ research objective is to gain insight into the dynamics of business-to-business segment relationships in the energy industry and the effect on managerial response to them. To achieve the stated objective, the research focuses on the identification of important drivers of energy B2B segmentation. This further established more profound understanding of customers’ appraisal of specific segments with focused orientation towards their needs. Further consideration of customers’ influential role in relational exchanges elicits the need to pay special attention to those variables that differentiate B2B customers from one another.

The knowledge gained from this research study provides a foundation on which recommendations directed managers of B2B energy segment can build. Hence, this master thesis approaches the research question from a managerial perspective.

Considering the formulated research objective, the overarching research question of this thesis is:

What are the criteria beyond the customers that allow energy companies to divide them into the clusters and what kind of benefits do B2B customers seek when they decide for the energy supplier?

Sub-questions

Based on this general research question, the following sub-questions to be answered are:

1. What are the specifics of B2B markets segmentation on energy market?
2. What are the fundamental segmentation variables that influence and guarantee the rational segmentation model?
3. What managerial implications can be inferred from the results of this study?

¹ DOYLE, Peter. *Value-Based Marketing: Marketing Strategies for Corporate Growth and Shareholder Value*. p. 202.

Definitions of terminology

The most important concepts that are mentioned in the research question and the sub-questions are briefly defined below. More detailed definitions are provided in the following chapters.

Literally said, market segmentation is dividing up a market into distinct homogenous groups that have common needs and will respond similarly to a marketing action².

Taking the energy sector more precisely into account, it belongs to the category of stocks that relate to producing or supplying energy. This sector includes companies involved in the exploration and development of oil or gas reserves, oil and gas drilling, or integrated power firms³.

As this thesis deals with business-to-business market, the basic definition should be determined in the beginning⁴. In B2B markets companies sell products or provide services to other businesses such as between a manufacturer and a wholesaler, or between a wholesaler and a retailer. B2B marketing differs from B2C that primarily serves end customers. These customers use the products/services for their personal use, not for further business.

Managerial perspective

This research study takes a managerial perspective. The objective is to discover and understand the right way of segmentation. The insights gained can be transformed into the distinctive initiatives by managers, which contribute to the strengthening of energy customer's product determination and satisfaction. Hence, this thesis' goal is to propose recommendations for managers on how to discover and properly define the B2B customers' needs.

General methodology

Marketing research can be defined as the systematic and objective process of generating information to aid in making marketing decision⁵. Marketing research provides a lot of useful information for a manager that is necessary for making right decisions. In order to find out the relevant information I undertook the standard research process starting with problem definition. The research plan and the collection of data follow the introductory start. I decided to undertake the secondary data from the desk research and the primary data using the basic method of the

² MACHKOVÁ, H., KRÁL, P. a kol. *International Marketing: Theory, Practices and New Trends*.p.80

³ *Investopaedia* [online]. [accessed 2011-03-06]. Energy Sector Definition. Available from WWW:
<http://www.investopedia.com/terms/e/energy_sector.asp>.

⁴ *Encyclopedia*. [online]. [accessed 2011-03-06]. B2B Market. Available from WWW
<<http://www.encyclopedia.com/doc/1O12-B2Bmarket.html>>

⁵ ZIMUND, W.G. *Exploring Marketing Research, 6th Edition, Fort Worth*. The Dryden Press, 1997, ISBN: 0-03-018763-X, p. 4.

qualitative method which is an in-depth interview and questionnaire. In order to find out the useful results and recommendation for the future, the data must be analysed and proceed in the practical part of my thesis. The final state of the research should be interpreted in a way that the decision-makers will get information that can help them to improve their segmentation.

1 Theoretical framework

1.1 Energy Industry

1.1.1 Energy Industry Specificities

Companies in the energy sector as a part of the utility sector are characterised by five signs⁶ that have an important result on its function. Each of these factors will be outlined with the respect on its economic importance.

- 1) Tendency towards the natural monopoly – The definition understands the natural monopoly a situation where ”the average cost of the firm reach the minimum in larger amounts of volume than the demand require, so the market demand is more effectively meet one company with lower average costs then if the production of the sector would be secured by more companies.”⁷ As a result of this fact, a company has an option to charge a price which is well above the long-run marginal costs and use all three forms of consumer discrimination without correction of the invisible hand of the market⁸.
- 2) Necessity of the provided service – Electricity is a very difficult replaceable item in the consumer basket which is characterized by inelastic demand. It creates the assumption of the economic rent gain because of the prices well above marginal costs. According the EU research⁹, the demand for electricity is inelastic (values up to 0.5). On the other hand, there can exist the inter-sector competition, the supply of electricity has an alternative solution in building of the solar panel that is why the long-term demand for the electricity can be seen as elastic.
- 3) Capital intensity – Energy companies require a significant initial investment, which have the sunk cost character¹⁰ and their amortization (the payback of the capital invested) can be expressed in decades. This fact influences the business model of the companies that must have secured revenues to repay loans to creditors and to have payments to shareholders. For this reason, energy companies demand a guarantee for their business and minimize the risk of the competition from government.

⁶ HÁBA, Stanislav. Sít'ová odvětví v EU: Hodnocení regulace elektroenergetiky v ČR.

⁷ SLANÝ, A.; ŽÁK, M. Hospodářská politika. p. 78.

⁸ SHEPHERD, William G. *Public Policies Toward Business*. p. 330.

⁹ COMMISSION STAFF WORKING PAPER: Progress report of the Energy Efficiency Action Plan 2006.

¹⁰ DIXIT, A. K.; PINDYCK, Robert S. *Investment under uncertainty*.

- 4) Heavy shelf product – Electricity as a product is in fact non-storable and non-transferable. Therefore, the produced quantity must match the quantity consumed. In the same time, the energy companies are required to provide continuity of supply under most circumstances. So the companies are forced to uphold some considerable excess capacity to cover the peak consumption. Since an electricity company delivers a redundant product and it is forced to sell everything, there is frequent fluctuation in prices. In extreme cases, the price of the product can be even negative so the seller pays to purchaser¹¹.
- 5) Time variability of demand – An important of the electricity sector is its temporal instability. It is taken into account in setting of prices for different time period, mostly for peak and off-peak or seasonally. The companies try to reduce consumption in the peak times and also gain the additional profits from inelastic demand by the division into more tariffs. However some authors deny the effect on the quantity of consumption for two reasons. First, it may shift consumption demand to other periods with lower tariffs¹². The second reason is more prosaic that says “price signals do not work”¹³(inelastic demand).
- 6) Utility structure – The cornerstones of utilities is the network structure itself. It must be mentioned that access to the network is a necessary condition for the distribution of services and products. This way of distribution of energy is often exclusive and usually there is no alternative because building a parallel network is extremely costly and often not allowed by the state regulation (the protection of the environment and prevention of land grabbing). In addition, the utilities are characterizes as positive externalities with growing number of users so they have the perfect monopoly power or the companies with oligopoly power. So it is really important to ensure the correct setting of the network capacity as it is hardly changeable over time. For electricity it has to be maintaining the excess safety capacity.

1.1.2 Functioning of Electricity Market

In order to understand the functioning of the electricity market, it is important to understand the supply chain that significantly affects the industry and it has many specifics in comparison to the rest of the economy. Therefore, the whole electricity market from producer up to the final consumer is introduced. The whole market is shown on the example of Czech Republic that provides us with the best scheme of this specific industry.

¹¹ STRACHOTA, L. Blíží se konec klasické RPI-X regulace? Prezentace Fórum podnikových ekonomů. 25.2.1010

¹² PHILLIPS, Ch. F. *The regulation of public utilities*. p. 447.

¹³ NISSEL, H. E. Federal Rate Design Standards and Energy Conservation.

Electricity market has undergone significant changes¹⁴. The influence of the entry into the European Union and the application of the free market principle causes the continual release of essential monopoly power of CEZ in the production, sales and distribution. In the same time, there has been a mandatory division of activities unbundling within the CEZ Group. The production, sales activities and the electricity distribution have been separated from each other in order to avoid monopoly and to have clear perception of the individual costs. This fact caused creation of independent company within the group, which is required to provide its distribution services to all players in the electricity market independent of the requirements and decisions of the parent CEZ Group. Since 2002, B2B customers, and since 2006, households, were given the right to choose their electricity provider. An independent Energy Regulatory Office was created, which was initially responsible for determination of the electricity prices according data from manufacturers and distributors. The office responsibility was restricted to the monopoly pricing activities respectively activities with limited access because of the gradual liberalization.

Since CEZ Vyroba has almost a monopoly power on electricity generation in the Czech Republic, the company was forced to start selling some of their electricity by public auction on period of one year. In 2008, the Prague Energy Exchange¹⁵ was created, where the selling of the electricity is made by form of futures on individual days, months or years. Wholesale price of electricity is influenced by actual cost as well as the development of the stock respectively in other regional, European markets such as German or Austrian. So the liberalization of this part of electricity could be considered as mostly completed. In 2007 and mainly in 2008, during the initial stage of trafficking through the auctions and the stock exchange, the price of electricity was responding by immense electricity increases. So it was approaching the prices of the European Energy Exchange in Leipzig. In 2008, the price of energy reached its peak as cause of the economic crisis that decreases the power of consumption and this situation finally results in lower prices. However, these prices of electricity are negotiated for a longer period ahead; the decrease up during 2010 could be easily seen. The related price graphs are shown in the appendix.

Nowadays, in overall, the electricity market has six basic entities, whose roles are defined in the Energy Act¹⁶:

- 1) Generation

¹⁴ SMETANA, Juraj. Finanční analýza společnosti CEZ a porovnání s evropskou konkurencí.

¹⁵ Prague Stock exchange. [online]. [accessed 2011-05-11]. Historie burzy cenných papíru. Available from WWW <<http://www.bcpx.cz/dokument.aspx?k=Historie-Burzy>>.

¹⁶ Act No. 458/2000 Coll., § 22

- 2) Transmission
- 3) Distribution
- 4) Market operator
- 5) Electricity trader
- 6) Customer

1) Generation

The production of electricity is the energy conversion device from various form of energy to electricity. Every electricity producer has the right to connect its equipment to the electricity grid (at own expense) and deliver generated electricity to the market participants if the security and the technical capabilities of the network allow it. In the same time, the producer is obliged to follow the regulation of technical dispatching transmission or distribution system and follow quality of supplied electricity¹⁷ (determined by the Energy Regulatory Office). The majority Czech producer of electric energy is CEZ Group (74% of total produced quantity)¹⁸. As regards to the structure of production the most significant part in the Czech Republic is the conventional electricity generation (black and brown coal resources) that is 57.9% of all quantity supplied electricity, followed by nuclear energy with 31.8% and in the third place is the gas and combustion with 3.8% (burning gas, oil and biomass)¹⁹.

2) Transmission

By transmission of electricity is meant the “long-distance transport of electricity” so the transfer of energy for very high (400kV) and high voltage (220kV and 110kV) usually on longer distance. TSO (Transmission system operator), apart from the transmission of the electric power, ensures the quality and reliability of electricity supply. Transmission of electricity is a typical natural monopoly that is ensure by one operator which is typical in many countries across Europe. In the Czech Republic the transmission of electricity is provided by ČEPS a. s.²⁰, the state-owned company, which has the exclusive authority on the operation of transmission networks. The company that holds the license for transmission cannot hold the licence for trade, distribution or production of electricity²¹. In the case of vertically integrated company, it is required that activities related to the

¹⁷ Act No. 458/2000 Coll., § 23

¹⁸ Annual report Group CEZ 2009. p. 92–3.

¹⁹ Energy Regulatory Office. [online]. [accessed 2011-04-11]. Struktura výroby elektřiny brutto v ES ČR. Available from WWW <http://www.eru.cz/user_data/files/statistika_elektro/rocn_i_zprava/2008/energie/23.htm>; own calculation.

²⁰ Annual Report ČEPS 2009. p. 15.

²¹ Act No. 458/2000 Coll., § 24, section 2

transmission of electricity are decided independently (from the transmission activities) and a managerial division between must be between these two activities²².

3) Distribution

Distribution system forms another part of electricity traffic to end customers, although there are some exception in form of large companies that can be connected directly into the transmission network. Part of grid lines of 110 kV voltage and all lines with less voltage belong to the distribution system. Nowadays, there are more than 280 electricity distributors in Czech Republic with three major players: CEZ Distribuce, E.ON and PREDistribuce. The most important restriction is that the distribution system operator with more than 90 000 customer supply points cannot have simultaneously the licence for any from the following activities: production, transmission, trade of electricity, trade of gas²³. The distributor must connect the grid to each unit and allow the distribution of electricity to everyone who applies for it. There exist some exceptions from this rule in case of non-compliance with the rules of distribution, traffic hazard or the threat to lack of capacity²⁴. The vertically integrated firms have similar rules as transmission operators considering managerial division.

4) Market Operator

Electric energy has unique features that cannot be found in other products, such as difficulty to storage the power inefficiently. It is necessary to ensure the compliance between the supply and demand of energy quantity. The market operator is responsible for this task to ensure the balance. To sum up, the core competencies of the market operator are following: the organization of the electricity market in the Czech Republic, ensuring of the balance between actual supply and consumption of the market electricity participants, organization of short-term trades with electricity. The operator cannot have licence or hold any stake in the company that is engaged in production, transmission, distribution or trade with electricity, gas or heating²⁵. The Czech operator, owned by 100 % by the Czech Republic, is OTE a. s.²⁶

²² Act No. 458/2000 Coll., § 24a, section 1-2

²³ Act No. 458/2000 Coll., § 25, section 3

²⁴ Act No. 458/2000 Coll., § 25, section 11

²⁵ Act No. 458/2000 Coll., § 20a, section 3

²⁶ Ministry of Industry and Trade [online]. [accessed 2011-05-07]. Available from WWW <http://www.ote-cr.cz/o-spolecnosti/files-statutarni-organy/Vypis_z_OR.pdf>

5) Electricity trader

Electricity traders buy electricity to either store it or to sell it to the electricity market demanders (end customers) or to other countries²⁷. All traders are entitled to use transmission and distribution systems for their activities. So far, there were approximately 310 licences issued²⁸ for trade with electricity but the 99% of the whole Czech market is split between these three suppliers – CEZ Prodej, E.ON Energie, and Pražská Energetika²⁹.

6) Customer

A customer is demand entity of the electricity market. It is the reason why the energy is produced and then transferred. Customer can be divided into B2C sector, B2B sector or public sector. They are free to choose their supplier of energy for their needs. In the Czech Republic, customers' preferred supplier is CEZ Group with around 44%³⁰ of all power take-off points in the country.

1.2 Segmentation

1.2.1 Why to segment?

Before the dive into the segmentation, it is highly appropriate to stop for the clarification of the question: why should be segmentation important for business?

“Very few products or services can satisfy all customers in the market. Not all customers want and are prepared to pay for the same things.”³¹ This implies an important (and in fact obvious) feature of markets. Different customers require different products/services. In a short example, let's imagine that there is just one restaurant catering market. Then the issue is that a worker dropping by for a quick lunch has absolutely incomparable needs with an uptown couple coming for a romantic dinner.

Moreover, it is necessary to take into account another cornerstone of segmentation. People use the same products (or virtually the same) very differently. To illustrate this, I give two examples. First, a large FMCG company Procter & Gamble sells three brands of hair dyes, but they contain the very same chemical colour. The only difference lies in packaging, accessories and

²⁷ Act No. 458/2000 Coll., § 30, section 1

²⁸ Annual report of Energy Regulation Office 2008. p. 47.

²⁹ European Commission: Report on progress in creating the internal gas and electricity market (Technical Annex). p. 16.

³⁰ Ceny energie [online]. [accessed 2011-05-11]. Srovnání dodavatelů energie podle počtu zákazníků. Available from WWW <<http://www.cenyenergie.cz/elektrina/clanky/srovnani-dodavatelu-energie-podle-poctu-zakazniku.aspx>>

³¹ JOBBER, David. *Principles and Practice of Marketing*. p. 210

consequently naturally price and target group. Secondly, hatchback cars serves usually various purposes, people buy it for business cargo, family luggage, pet transportation etc. The best example of this multi-purpose approach, the company 3M can be mentioned, which uses their technologies in products from medical care, over adhesives to highway traffic safety.

In a nutshell, “we cannot do everything, we cannot satisfy everybody; resources do not stretch that far”.³² Especially the resource concern drives the business towards thorough and sophisticated segmentation. “Customers are too numerous and diverse in their buying requirements. This is why successful marketers look for specific market segments that they can serve more effectively. Instead of scattering their market efforts (a ‘shotgun’ approach), they will be able to focus on the buyers whom they have the greatest chance of satisfying (a ‘rifle’ approach).”³³

1.2.2 Historical Development towards Segmentation – The Concept of Orientation on Market

Not surprisingly, the segmentation has not been always omnipresent in marketing, as it is written in the Kotler’s book “A Framework for Marketing Management”. More specifically, its creation is closely connected with the common development of the orientation of business towards customers, their needs and markets itself. Therefore, in the 20th century, there are four concepts to be found³⁴:

1) Production concept

The cost side of profit maximization was important up to 1950. The principle of this approach was to "produce as much as possible" that brings the economies of scale and thus squeeze the costs down and create more space for profit creation. With this approach, the unification and mass production was applied as well as the low price as a basic sales pitch. The precondition for the functioning of this model is insufficient demand with a small selection of suppliers and its products.

During the production approach, the basic issues addressed by the company management are production methods and increasing the efficiency of resources used, rather than how to attract customers.

³² HAGUE, Paul. *Segmentation in B2B Markets*. p.1

³³ KOTLER, Philip. *Marketing Management*, chapter 8

³⁴ KOTLER, Philip. *A Framework for Marketing Management*. Chapter 1

2) Product concept

In this approach the company management meets with higher interest in the demand for the product itself. Apart from the first P (price), another P (product) of marketing mix becomes important. Company and consumers are focused mainly on product quality, for which they are willing to pay a higher price. Clients are also interested in diversity, since they pursue various products. Customer opinion is crucial. Concept lasted about a decade, until 1960, but during the fifties the concept of selling began to prevail.

3) Sales concept

Another concept arrived in 1950s and was lasting up to 1970. The sales concept was oriented towards promotion and addressing the customer. In addition, the needs of customers begin to be crucial. The sales concept also responds to the higher expectations of customers and insufficient concept of production. The main reasons for sales concept creation were:

- A part of goods are normally ignored by customers, since they do not feel the need to buy it. So it is necessary to wake up their need, offer them the arguments why the focus should be also concentrated on these goods.
- Most goods tend to be undifferentiated and the only way how to do that is promotion, packaging or distribution channels.
- Some products which show too large complexity for customer, while promotion is the way how to make it simpler and better communicated to consumers in the form that can attract their attention.
- High switching costs usually prevent customers from change of their habits. Promotion helps to persuade them to alter their favourite products and behaviour.

In the same time as sales concept was used, the marketing mix was defined for the first time in 1960 by E. Jerome McCarthy³⁵.

4) Marketing concept

Marketing concept has been used from 1970. It was described as the concept oriented on market. Phillip Kotler characterised it by the following 4 pillars:

- Target market;
- Customer needs;
- Integrated marketing;

³⁵ MCCARTHY, J. *Essentials of Marketing*. Part 2

- Profitability.

Marketing concept is a logical summary of the experience from the past concepts. It applies marketing mix in consequent concentration on the markets and takes into account the basic principle of entrepreneurship that is profitability.

It clearly declared the need to change and focus on the customer portfolio, to know customers' needs and to change the product and also the marketing mix according to them. In the same time it is important for the company not to lose the concentration on profit. Marketing concept pursues to achieve win-win situation where all customers are satisfied and the appropriate profits are created. According to the marketing concept, the right way to reach this status quo is through the target market.

If we look again at the pillars of marketing concept, the three of them simply refer to the basics of segmentation that is why; we can understand this period and marketing paradigm as the new-born of segmentation tool.

1.2.3 History of segmentation methods

The tool of segmentation has emerged as an important marketing tool over the past-half century³⁶. The first trial to divide customer into the groups (to segment the energy market) began in the 1980s through the techniques such as SRI Consulting Business Intelligence's VALS Method. It focuses on segmentation of the customers according of psychological traits and demographic characteristics. Nevertheless, a lot of (not only utility) managers were using mostly sectorization, which is driven by historical customer groups and broadly used for agricultural, industrial, commercial and retail customer groups. Looking on the current status, utilities have made a significant progress over the past decade towards identifying segments and marketing strategies based on them.

Methodological approach to segmentation³⁷

Several disciplines were trying to describe the ideas, behaviour, technologies, products and services that are characterising the market place. It has developed several methodological approaches for market segmentation. I will try to define a couple of these approaches how to segment the energy industry:

³⁶ MOSS, S.; CUNED, M. *Market Segmentation and Energy Efficiency Program Design*.

³⁷ Rewritten from: WILSON, Charlie; DOWLATABADI, Hadi. *Models of Decision Making and Residential Energy Use*.

- Classical Economics
 - Basis for segmentation: This method uses the preferences that are exhibited through supply-demand equilibrium as its basis.
 - Necessary research: Marketing experts need to find the empirical data about the supply and the demand of the product, services caused by change of price and information. Also, other information about benefits and costs of specific technologies are required.
 - Application: This traditional method is used under the assumption that a rational consumer responds mainly to price signals if they are provided with sufficient explanatory information. In depth segmentation is not included.
- Behavioural Economics
 - Basis for segmentation: This approach is similar to the classical economics. It is modified just by decision based on the heuristics (intuition and experience) and the context dependent on preferences.
 - Necessary research: It is necessary to have the research examining how the purchases are made by individuals. The focus is based on identification of the key decision-points.
 - Application: This method is typical for the segmentation of the consumer products where the products are linked with the messages or deep emotions. Marketing is tailored to the product.
- Technology diffusion
 - Basis for segmentation: The technological adoption is the basis for segmenting.
 - Necessary research: Observation and survey research of the individual purchase motivation, purchase value definition and relationship between consumers is needed.
 - Application: This method is used mainly in the agricultural marketing where the most significant changes are connected with the technology purchase that is also way of signalling to others that it is worth to purchase. This methodology is also used nowadays when the celebrities and technology lovers start as early adopters firstly and they are an incentive for the others to follow their purchases.
- Social Psychology
 - Basis for segmentation: Psychological and demographic criteria are the crucial factor for this method.

- Necessary research: Observation and survey research of individuals and groups of consumers is used as the basis. It is based on the values, attitudes, norms, socio-demographic criteria and capabilities to absorb the new products.
- Application: It is applied in the product area where there are a multiple of niches. It is popular as a basis for energy efficiency topic.
- Sociology
 - Basis for segmentation: Institutional context that formulates the preferences is used for this method of segmentation.
 - Necessary research: Survey research of individuals and groups of consumers is needed. It is based on social and cultural context that influence behaviour.
 - Application: This method is used by broad campaigns to change behaviour of large groups of people as health care or environmental attitudes.

Modern segmentation approaches are combination of all these mentioned methods. As the competition in the energy industry is increasing, it is important to take into account more methods and approaches than just one.

1.2.4 Segmentation – target versus mass marketing

Target marketing

The common form of marketing uses a differentiated approach to customer, highlighting the differences between them and making use of it. Shortly summarized, target marketing comprises this topic.

Precisely explained, the target marketing stands for recognition of main market segments, decision among them and choice of the relatively most profitable ones.³⁸

The process of target marketing application consists of three stages:³⁹

1) Market segmentation: The first stage deals with uncovering of the segment lacerated by identifying the major criteria. It is followed by the development of the exposed profile criteria and reviewing the usability of segment.

2) Market targeting: In the second stage, the value of the exposed segments is evaluated, if they meet the appropriate conditions of marketing approach and market segmentation. Further, the attractiveness of segments is scrutinized and the best matching ones are selected to be targeted.

³⁸ KOUDELKA, Jan. *Segmentujeme spotřební trhy*. p.10

³⁹ Ibid. p. 11-12

3) Target positioning: The third stage is intended to decide on the marketing approach of the selected segment and the choice of the marketing orientation to these segments, too.

Forms of the target marketing

Targeted marketing occurs in four variants yield:⁴⁰

1) Concentrated marketing

In the words of Kotler: “Instead of going after a small share of a large market, the firm goes after a large share of one or a few submarkets. Put another way instead of spreading himself (sic) thin in many parts of the market, it concentrates its forces to gain a good market position in a few areas.”⁴¹

This strategy is oriented mainly on one consumer segment. If this segment is the market niche, this approach merges with niche marketing strategy. This form of marketing is recommended for small business and business entering on a new market, as it has a power to create a good basis for a market expansion. The advantage of this strategy is its specialization. The disadvantage of the concentrated strategy is that if the segmentation fails, it can have the devastating impact on business.

2) Differentiated marketing strategy

Again introduced by the marketing guru Kotler, differentiated marketing can be explained as the following:” A firm decides to operate in all segments of the market, but designs separate [mixes] for each.”⁴² This approach is the opposite of the concentration strategy. In this segmentation, company selects all the important segments and prepares the marketing approach for them. Advantage of this approach is the diversification of the risk, while the disadvantage side is fuelled by its costly character. It is mainly used by multinational companies, who have strong financial resources at their disposal.

3) Strategic intermediate

This form defines the scope for further variations of decision about the targeted segments. It is the way how to choose more segments for more specific examination. This approach is sometimes also called the selected marketing. The advantage of this approach is the possibility to combine both variants of the targeted marketing strategy.

4) Other approaches

The choice of more segments to market targeting can have other variants as joining of adjacent segments called contra segmentation. Another form is a hierarchical approach,

⁴⁰ Ibid. p. 12-14

⁴¹ KOTLER, P. *Marketing Management*. p. 60.

⁴² KOTLER, P. *Marketing Management*. p. 58.

where the chosen segment is considered for primary and the other major segment is known as secondary.

Although the target marketing might seem quite prevailing on today's marketing scene, some sources do point out the flaws of this concept: no prevention of leakage between segments, fake market response, overestimation of differences needed for segments.⁴³

Mass marketing⁴⁴

An adversary to target marketing is the mass marketing. In general, mass marketing regards the whole market as one unit and simply ignores the difference in it.

Products marketed in mass pursue to reach to broadest audience possible. Specifically, mass marketing theory takes no notice to the variety of customers and provides them with unified offer that should cover the average needs.

In financial terms, mass marketing strives to sell the highest possible number of products/service, because the price strategy keeps the value rather low. In other words, the margin is pressed to the minimum, but the high volume runs the profit itself. Moreover, due to standardization and lack of product variety, the production costs are much lower in comparison with niche products.

In the history and also on the current market, there are numerous examples to be easily found. Just to mention a few: food, toothpaste, furniture, personal computers and even Scotch whiskey made their success with mass marketing. On the other hand, the important notice for the selection between shotgun and rifle approach must be mentioned. The product character, target group and marketing define if the communication strategy should lean more towards mass marketing or the other way.

1.2.5 Basic principles of segmentation

Segmentation is a tool that determines the segments on market. It allows us to compare the specifics of segments and to use the knowledge to target the customers with the right offer in order to reach the highest revenue. The basic rule of the success reaching in segmentation is obeying the following basic principles:

- Segments have to be heterogeneous and different.
- Consumers inside of one segment have to behave similarly.
- Segment has to be big enough.

⁴³ WRIGHT, Malcolm; ESSELMONT, Don. The Logical Limitations of Target Marketing.

⁴⁴ Compiled from various sources:

- TEDLOW, Richard S. *New and improved: The story of mass marketing in America.*
- TEDLOW, Richard S.; JONES, Geoffrey. *The Rise and fall of mass marketing.*
- NUNES, Paul; JOHNSON, Brian. *Mass affluence: seven new rules of marketing to today's consumer.*

- Segment has to be reachable for company.
- Segment has to be measurable.

The segments are similar to the goals of company. In order to determine the right goals, a small help with the first letters can be used. The compilation of the letters, defining the right goals, forms together the expression SMART.

- S – Specific, a segment should be specific. The frontiers should be recognizable and we should know which customers can be inside of it.
- M – Measurable, a segment has to be measurable. The main point of this request is to determine the measurable target, otherwise it could not be evaluated if it has been reached or not.
- A – Achievable, the segment has to be reachable. It is important to determine the group of people that company can address.
- R – Realistic, the segment has to be realistic or it could not be targeted at all.
- T – Time related, the time frame must be known in order to set the deadlines which are touchable which provide the motivation on our way to goal.

Another requirement on segmentation was defined by Jan Koudelka in his book „Segmentujeme spotřební trhy“. There are four criteria, which should be met by every segment that a company delineates and pursues⁴⁵:

- Stability
Stability expresses the requirement that the segment size, typical variables of the segment and also the behaviour of consumers in the segment were stable for longer time. The changes in segmentation must be observed and it cannot be assumed that the behaviour of consumers within the segment will never change or that the consumers will not move between segments. If it happens too quickly, the response to this problem comes usually too late. Segmentation is neither short, nor inexpensive process. Of course it depends on criteria chosen. However, the time, work and money must be invested to segmentation to get some results and to be able to use it efficiently and for the longest time possible.
- Agility
The agility condition is associated with market definition and the condition of the availability of segment stability. In principle, if a segment cannot be pushed to

⁴⁵ KOUDELKA, Jan. Segmentujeme spotřební trhy. p.135-137

action of repeated purchase, the segmentation fails. To achieve the right segment and address it, the effectiveness in addressing the future income of the company must belong to the top priorities.

- **Objectivity**

The requirement of objectivity is very important and usually the most violated. It declares that segment must be identifiable objectively but not subjectively. The company should be sure about the fact where the consumers belong.

- **Positive link to products or services provided**

Important condition is also positive attitude of consumer within the segment of products/services. It would be pointless to choose as targets segment such consumers whose relationship to the company is negative. Then much greater effort must be used to achieve the same effect. So when the target is chosen, the focus must aim on either positive relationship with the consumer or the neutral one that are bringing us less effort and lower costs too.

There are more necessary criteria to be met, which vary according to the literature. Similarly, every segment should fulfil two more criteria, which have not been previously mentioned in this thesis:⁴⁶

- **Substantial** – Every segment that has been “cut out” from the market should be profitable enough to serve. In other words, a segment should be the largest possible homogeneous group (viewed by segmentation criteria). Furthermore, this group’s should represent a profitable one, i.e. passing the minimum threshold for profitability and product/marketing mix adjustment.
- **Differentiable** – Each segment should be distinguishable and in the marketing terms should stand for different groups (use of product, attitude to it, response to marketing campaign etc.) Thus, for example in drilling machines business, the age does not matter for segmentation, because the users do not demonstrate significant differences, but hobby or professional application does.

1.2.6 Definition of segmentation criteria

Segmentation is the difference between the consumers concerning their expressions associated with the category. The role of these differences is important for the application of targeted marketing in a given market area. It is expected that consumers behave differently and therefore,

⁴⁶ KOTLER, Philip. *Marketing Management*

this diversity is considered and valued and on this basis then marketing approach is customized.

Consumers are reflected against the product category in a number of different positions. This surveillance must be converted into specific terms for a given product. Expectations, of course, will vary based on product diversity.

In generally, there are two main groups defining the segmentation criteria⁴⁷.

- One group deals with the criteria that explore the difference between consumers according to the ground, preferences and reasons. This is a group of causal criteria. The common denominator is the question of “why”.
- Second large group of delimitation criteria can be characterized as a matter, how is the market of consumers against the product expression.

The cause criteria have an advantage that it can determine the direction of suitable marketing approach towards the uncovered segments; however it is not always easy.

The advantage of the criteria is the good frequency response and that they are able to quantify. If those segments are considered just on this basis, the information about a marketing approach is missing.

Both groups rely mainly on knowledge of the predisposition of consumers such as the ability to observe closely the consumption habits.

1.2.7 Journey towards the right segmentation of customers

Understanding of the market and customers is neither simple, nor small task. Every step needs to be thought through and debated to receive the best possible results. The sales teams plays the crucial role in the process as they already have some particular and hidden knowledge. The overview process for developing the segmentation includes four major steps⁴⁸:

- 1) Choosing the right customers to research and interview;
- 2) Developing a sound methodology;
- 3) Conducting the interviews;
- 4) Developing the needs-based segmentation.

⁴⁷ KOUDELKA, Jan. Segmentujeme spotřební trhy. Chapter 3

⁴⁸ HAGUE, Paul. Segmentation in B2B Markets. B2B International.

1) Choosing the right customer to research and interview

The first step in the process is to decide for the right customers that should be interviewed in order to ensure a representative sample of the market. After research and analysis of customers, a list of customers is created to be interviewed and go through the identification of their needs.

2) Developing a sound methodology

Companies always try to get improvement of already existing solutions with specifics ideas about how the solution should be changed but without stating what their actual needs are. This kind of information allows interviewer to propose a lot of incremental improvements to make but not gain a full understanding what customers try to accomplish. Incremental improvements can be easily copied by competitors, whereas new innovative solutions can better serve the customer. Customer can be temporarily satisfied with those changes, but the supplier does not understand the customer. So it is more conveyable to give into the interview also open questions about the customer's business situation and strategy. The following structure can be used:

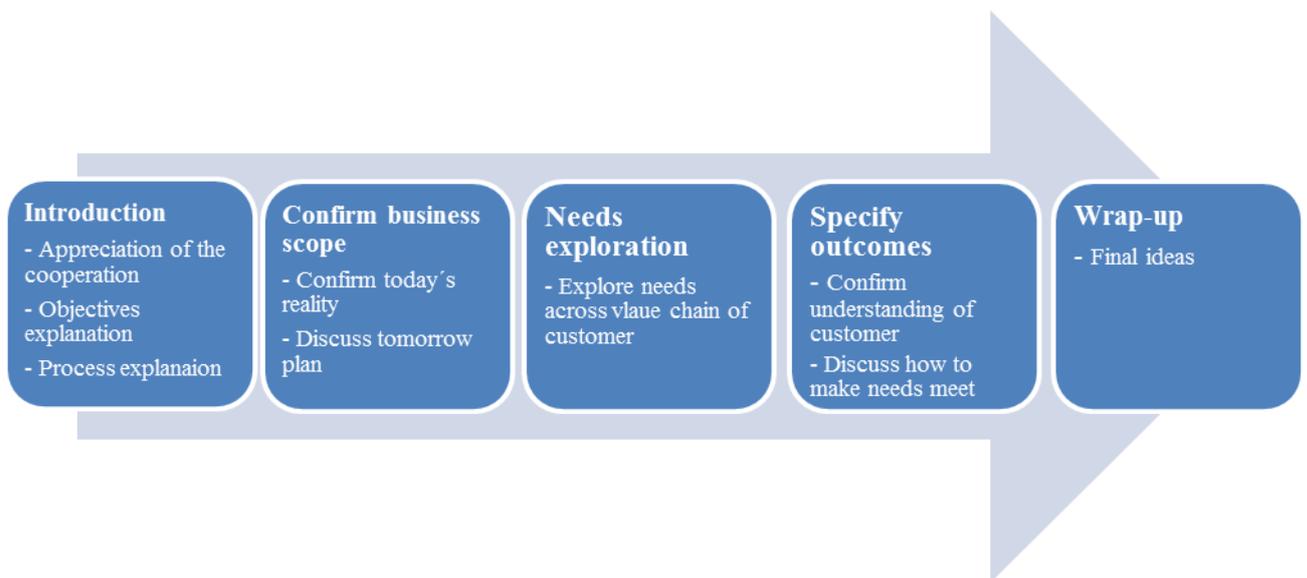


Figure 1: Development of methodology

3) Conducting the interview

Customer research should be done prior to each interview so the more time can be spent unravelling the customer's needs.

The discovered customer's business scope of the company can gain insights into the customer's business activities and strategy. Deep-drive questions can identify the company core needs. It is more suitable to use entire value chain to ensure wide understanding of customer needs.

When the needs are identified in terms of customer's strategy, the interviewer asks the questions to assess the importance of each need. Prioritized needs have to be explored further. The customers are asked to comment on the industry's performance in each need. Then it is crucial to target performance in measurable terms.

4) Developing the Needs-based Segmentation

After the research the knowledge should be shared. The initial segmentation scheme should be discovered. Developing the needs-based segmentation is an interactive process. The map of the customer needs is the basic stone for segmentation scheme. Some of the segmentation groups can be created also intuitively.

1.2.8 Process of Segmentation

Segmentation is important for business as such. It is present during the overall process of governance and management of the company – decision making, organization, management and control. Segmentation is an indicator for the information as where to focus efforts. Segmentation tells us something about our target customers, the customers that are already in the portfolio, and indicates how they can be accessed.

Philip Kotler defines marketing management as a conscious effort to achieve the desired results on target markets⁴⁹. Achieving the desired results of exchange is more or less a profitable business missions and marketing segmentation method of determining the target market where the top firms have met the objective to achieve this goal.

According to the book "Principles and Practise of Marketing"⁵⁰ written by Jobber, segmentation can be divided into these stages.

- Market determination;
- Identification of crucial criteria;
- Segment discover;
- Development of segment profile;
- Check of criteria;
- Evaluation and targeting.

Since the main goal of this diploma thesis is not the general segmentation process, but specifics of B2B segmentation in the energy industry, I will only focus on evaluation part of the segmentation process.

⁴⁹ KOTLER, P. *Marketing Management* (1st ed.).chapter 8

⁵⁰ JOBBER, David. *Principles and Practice of Marketing*. chapter 1

1.2.8.1 Segment evaluation

There are numerous ways how to evaluate a segment, in other words how to choose the best segment which to go for. The company evaluating market segments should look into these two issues: market attractiveness and company's capability to compete in the segment⁵¹

1) Market attractiveness

Market attractiveness can be assessed by different factors as market, competitive, political, social and environmental. The capability of company to serve the market segment is placed against the market attractiveness as segment must be attractive inside the resources of the company.

▪ Market factors

- **Segment size** – Segment of large size are in generally more attractive then small as their potential of sales is more important and the chance of achieving economies of scale is better. But in the same time the large segments are often much more competitive since there is more companies that are interested in entrance on this markets.
- **Segment growth rate** – Stagnant or declining segment are less interesting for companies than growing segments where new business opportunities are greater. However a growing market is usually more associated with heavy competition. Analyses of growth rate should be accompanied by the examination of competition.
- **Segment profitability** – Potential of profit is an important factor of market.
- **Price sensitivity** – The price sensitivity of markets where customers react more on price change can be a danger for profit margin as they can be eroded by price competition. Low price-sensitive segments are usually more attractive since the margin is higher. So the only way how to compete is based more on quality and other non-price factors.
- **Bargaining power of customers** – End and intermediate customers can make high bargaining pressure on suppliers. Lower prices for large orders are usually the results of decrease in profit margin.
- **Bargaining power of supplier** – Company must agree on criteria with the customer negotiator but also its suppliers. Segment will be more attractive in

⁵¹ JOBBER, David. *Principles and Practice of Marketing*. p.210-238

case of serving by a large number of competing suppliers than in case of few dominant companies.

- **Barriers to market segment entry** – A new potential segment can have some entry barriers that are reducing its attractiveness. Barriers can be divers: licenses, initial investments, patents, high switching costs for customers.
- **Barriers to market segment exit** – Segment can be regarded as less attractive to enter if there are high barriers. Some barriers are in form of production facilities that cannot be easily liquidated.
- **Competitive factors**
 - **Nature of competition** – Segments with aggressive competition are less attractive than those with weak one. A very important fact here is also the quality of competition than number of companies operating in a segment.
 - **New entrants** – A segment can be attractive because the lack of competition and in the same times the dynamics of the market. It is important to take into account the likelihood of new entrants, new technology that can change the rules of the competitive game.
 - **Competitive differentiation** – Segments can gain more attractiveness when there is a possibility to create differentiating offers for customers. It depends on identified customer needs and capabilities of the company.
- **Political, social and environmental factors**
 - **Political issues** – Political stability or its forecast for the country and its segment can attract new companies to enter it so new market segments are open up for the companies.
 - **Social trends** – Society can also have quite important impact on the market segment. A change in society and its habits can create a possibility for a company to offer new products and services.
 - **Environmental issues** – There are new trends of more environmentally friendly products that can affect market positively or negatively, as well as ecological opinion of the consumers.

Each company should assess their inner abilities which influence their competitiveness in the segment. These internal factors comprise:

- 2) **Capability to compete** – Against the attractiveness factors there are other factors such as capability to serve the market segment. The capability may be assessed by analysing exploitable marketing assets, cost advantages, technological edge, and managerial capabilities and commitment.

- **Exploitable marketing assets** – This criterion comprises how the marketing segment allows company to exploit its current marketing strengths.
- **Cost advantages** – Companies can have an opportunity to achieve lower cost by use of the cheaper material, labour or technological advantages. It could guarantee quite strong position especially in the segment which is price sensitive.
- **Technological edge** – The strength can be derived from the superior technology. Patent protection can form the basis of strong position, leading the high profitability.
- **Managerial capabilities and commitment** – A segment may look interesting on the first look but then after the realistic assessment of managerial capabilities and skills, it can be found out that they are insufficient against strong competitors. Moreover, a segment needs to be viewed from the viewpoint of managerial objective. As the implementation is crucial, without management effort, the entry could fail.

To sum up, segmentation is the first important step in marketing. The driving factor of segmentation is often the mix of where-what-who and why. As the segmentation give us a group of customers with common needs, it is possible to set marketing objective for the specific segments. When the objectives are set, the strategies can be developed using the tactical weapons of product, price, promotion and place.

Each company has a desire to understand its customer better in order to become more customer-focus company. The most crucial step of this process is to listen carefully the voice of company customers. There are more ways how to approach this problematic, but the crucial point is to get a snapshot of the current market situation in which the company operates as well as insight into the core needs of the customers. Based on the interviews and research, customer needs are mapped and developed to a new segmentation framework.

It is apparent that companies that look similar can have very different needs and also expectations in the end. By understanding the core needs, the company can align better the products and services that address these needs, so that the customer loyalty is increased and the chance of sustaining the position on the market is enhanced, too.

1.3 Customer and B2B Segmentation

1.3.1 Specifics of B2B Markets

Before the explanation of B2B segmentation start, it is important to understand how B2B markets differ from B2C and how this implication mirrors into segmentation.

For explaining the specifics of the B2B markets and marketing, it is appropriate to look at the value chain. The value chain starts (and also finishes) with the final consumer demand, which is met by a long journey from the raw material to the end-user product, mostly not in one company, but within a number of intermediates and production services. As an example, the following figure presents one illustration of the value chain in shirt manufacturing:

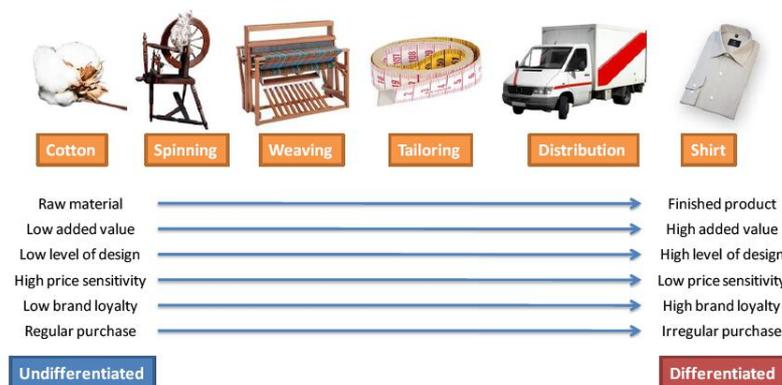


Figure 2: Illustration of the value chain

Source: HARRISON, Matthew; HAGUE, Paul; HAGUE, Nick. *Why Is Business-to-Business Marketing Special?*

When looking more into the explanation of example on the picture, without raw material and carrying out all those activities mentioned, the final product would not be finished. These activities must be delivered by the companies that make it because of the profit. Companies gradually add a value and move further in the value chain towards the final consumer. B2B marketing is specific by the fact that company seeks to meet the needs of other companies that are derived from the end consumer demand⁵². B2B markets differ from traditional consumer markets in many parameters, so these markets need a special approach.

B2B customers decide about the purchase of more complex unit than it is in case of the consumer markets. Purchase decisions on the consumer market often depend on one person or on the agreement of the households. On the B2B markets, it depends on the ordered product and the values which achieves or how much of risk is associated with it. If this decision is only on office

⁵² HARRISON, Matthew et al. *Why Is Business-to-Business Marketing Special?*

supplies, it depends often on the office manager, but if it is more important product for the company e.g. manufacturing facility, this process needs an essential strategic decision that will affect the functioning of the entire operation. Then the decision is done by whole team of people where everyone has different interests and different incentives. Buyers take into account mostly the financial aspect; production manager is mainly interested in the performance. The decision can be influenced also by the risk department or the department of environmental impact⁵³. On B2B markets there are also often testing the product before its actual purchase and there exists also more bargaining over the price. On the consumer market we do not have these effects at all⁵⁴.

Products on B2B markets are more complex than those on the consumer products markets. Product on consumer markets requires almost no or minimal expert knowledge in the industry in comparison with the product of B2B markets. A product for industrial market is often tailored in comparison to the standardized consumer products on the market. Products on B2B markets also differ by their rate of turnover, because the B2B markets are determined mostly for long-term consumption than it is on the consumer markets. The product cycle is repeated significantly longer on B2B markets⁵⁵.

Buyers of B2B markets are more rational in their decisions in comparison with buyers in the consumer market. Consumers of B2C markets are less informed, less responsible to others, more influenced by emotions and buy what they want and not what they really need. That is why on B2B markets, products are bought with greater caution. However, it should be noted that decision on B2B markets is not totally based on rationality, but there are very important personal relationships that are more significant than on consumer markets. Confidence in the supplier on these markets is strictly necessary, because no company wants to make bad purchase decisions and thereby destroy the reputation of its customers. On the B2B market are much less buyers than on consumer markets. For consumer markets, there are limits of the amount of purchased product, which are given by the human ability to use or consume these products. The difference between the consumption of a customer who buys large quantities of product and a customer with low consumption demand is not such significant as to B2B markets. The difference between so-called heavy and light user is higher on these markets. Differences in the number of customers and range of quantities purchased are essential parameters for B2B markets that differs it from consumer markets and thus it requires a completely different marketing approach.

⁵³ Ibid.

⁵⁴ Ibid.

⁵⁵ Ibid.

The consumer market drives innovation much more than the process of B2B market. Company business on B2C market is closer to the on-going innovation than on the B2B market. It does not mean that companies on B2B markets are worse innovators; on the contrary, they are much more rigorous e.g. during planning, as trends on B2B markets are better identifiable⁵⁶.

The brand plays an important role on the B2B market⁵⁷. As it is often difficult to distinguish one product from another, it is essential to support the brand. It is the same as on the consumer markets. What is really different on both markets is called – efficiency of family brands. On consumer markets, the strategy based on the sense of family brand is important and by this fact the company wants to reach more segment and sub segment, which have different wishes and needs. On B2B markets, customers are much more informed and these approaches considered as confusing and meaningless.

1.4 B2B Segmentation

1.4.1 Why is important to segment in B2B sector?

That is a key question: why is it worth to spend scarce company's resources on segmentation? Especially on B2B markets, where rationality should be omnipresent and the buyers should find their suppliers.

Easy answer: If a company does not know, which market is serving, what customers are important and which needs they have, it is difficult to exploit the market potential. Thus every company should be able to answer following questions:

- What business are we really in?
- How is our business changing?
- What other businesses do we need to be in?
- Who are our customers?
- What do our customers want?
- How do we create, maximize, and deliver value to our customers?
- What is our business philosophy?
- How are we different (and better) from our competitors?

The best example how significant driver of growth can be properly-done segmentation shows General Electric. Words of Jack Welch, the former CEO: “I asked each of the businesses to

⁵⁶ Ibid.

⁵⁷ Ibid.

redefine its markets and ... GE went from a "market definition" of about \$115 billion in 1981 to over \$1 trillion today, providing plenty of room for growth.”⁵⁸

1.4.2 Specifics of B2B segmentation

While the consumer market is interested in individuals and their division into the segments, B2B segment is constituted from organizations and companies.

A B2B market, sometimes also called an organizational market can be segmented on several factors classified into two major categories: macrosegmentation and microsegmentation⁵⁹.

Macrosegmentation looks into the criteria as size, industry and geographical location, while microsegmentation requires more deep knowledge under each microsegment based on such factors as choice criteria, decision-making unit structure, decision-making process, buy class, purchasing organisation and organizational innovativeness. The standard process is that the organisational markets are firstly grouped on macrosegment and then identified through microsegment.

The choice of the appropriate macrosegmentation and microsegmentation is based on the fact which criteria are the most useful to predict the buyer behaviour. Then different criteria can be used.

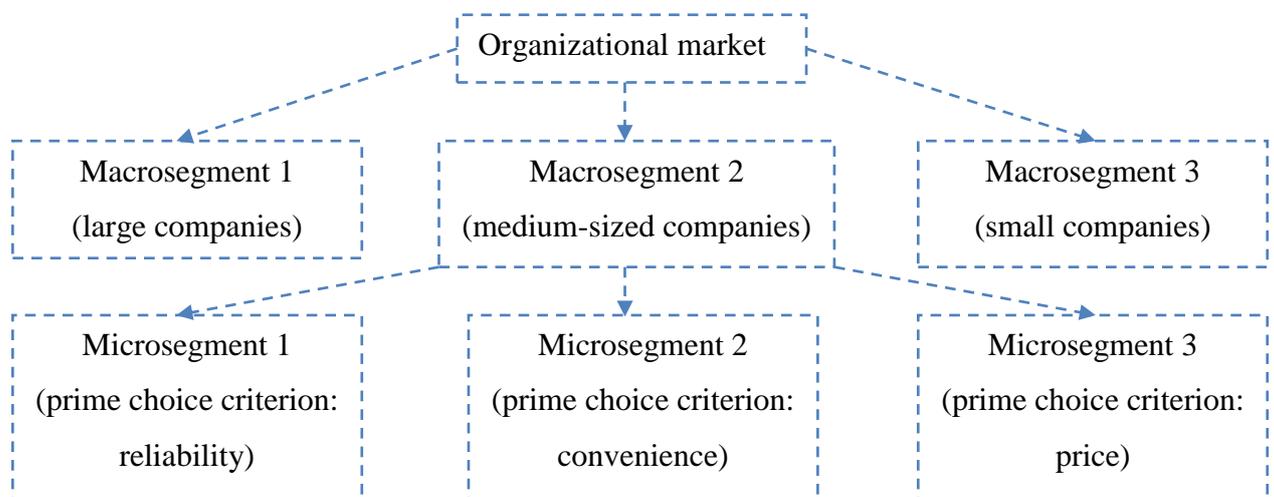


Figure 3: Example of microsegmentation and macrosegmentation
Source: Own visualisation

⁵⁸ WEINSTEIN, Art. *Handbook of market segmentation: strategic targeting for business and technology firms*. p. 21
⁵⁹ JOBBER, David. *Principles and Practice of Marketing*. p.210-236

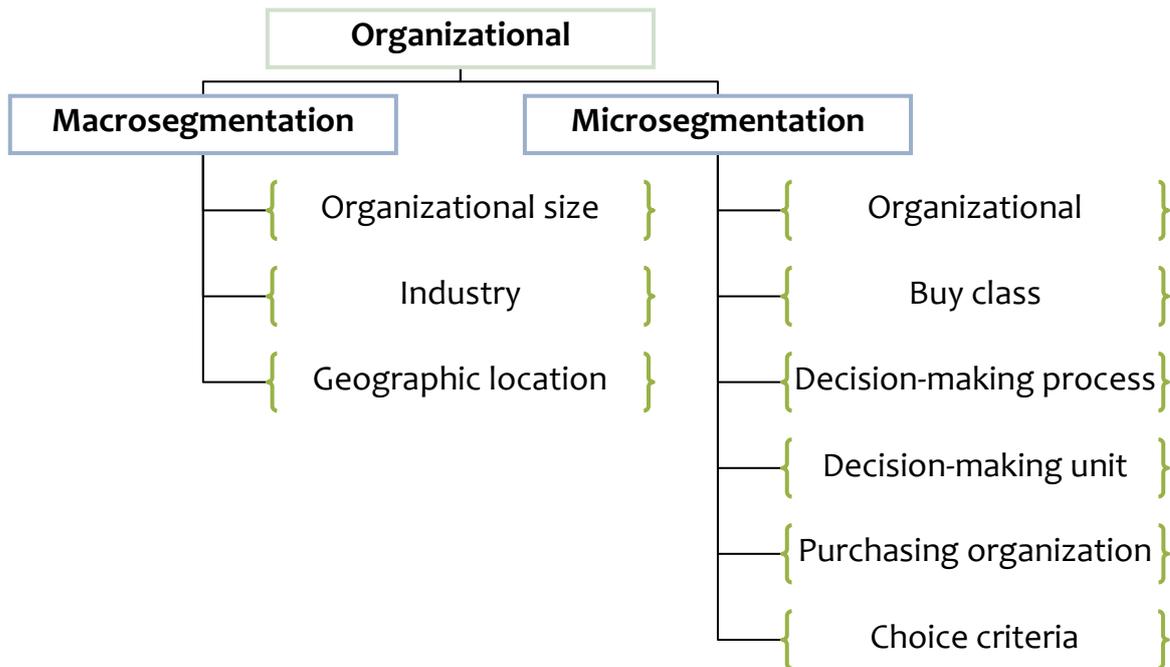


Figure 4: Organizational segmentation
Source: Own visualisation

1.4.3 Macrosegmentation

The factors which are crucial for this form of segmentations are organizational size, industry and geographic location.

- 1) **Organizational size:** The organization, its size and importance, can be used as criterion to segment market. Large companies have a greater order potential, more developed processes and special needs as e.g. different type of discount in comparison with small or medium-sized companies. This segmentation will result to the creation of target market with tailored marketing mix strategies. The sales forces are usually organised on a key account basis where the teams are responsible for important industrial accounts. Other important criteria are negotiation skills as there will be always demand from the consumer side to get the volume discount for large purchases.
- 2) **Industry:** Industry sector is a part of macrosegmentation variable. Industries differ by the requirements on products according their needs. The effectiveness of marketing mix depends on understanding each industry's needs in depth. In some circumstances further division in segmentation can be required. For example the educational sector needs to be further divided into primary, secondary and tertiary, as the requirements for products and services can be divers.
- 3) **Geographic location:** Geographic location is often use as a basis for differentiating marketing strategies. The purchasing power in different regions can be quite significant, such as for example the difference between companies in Western and Eastern Europe, where the purchasing practise and expectations of companies are markedly different.

There are diverse administrative and bureaucratic structures that make different approaches to how to do the business and that companies need to take into account the decision to enter the market. Also, the cultural factors can play quite an important role so marketing should reflect these diversities.

1.4.4 Microsegmentation

Macrosegment can be divided into smaller microsegment according to⁶⁰:

- 1) Buyer's choice criteria,
- 2) Decision-making unit structure,
- 3) Decision-making process,
- 4) Buy class,
- 5) Purchasing organization,
- 6) Organizational innovativeness

1) Buyer's choice criteria

This factor is segmenting the market according to the key choice criteria used by buyers when evaluating supplier offerings. Customers have different rates: for some the price is the crucial criterion, for other it may be the productivity or even the service quality. As the preferences vary that means that marketing and sales strategies need to be adapted for each segment's needs. Marketing strategies must cover all three segments, that is why the sales department should stress these advantages to customers. The variations in key choice criteria can be powerful indicators of buyer behaviour.

2) Decision-making unit structure

Another way of segmenting the markets is based on the decision-making unit composition, its members, and its size as it can vary between buying organizations. Decision-making unit consists of all those people in buying organization that influence the supplier choice. The segments can be influenced by the top management on their decision, for another segment it can be the engineers who play the most important role or it can be the purchasing manager who plays the key role. In the same time, the decision-making unit can vary considerably according to its size. There is a difference when it is a large and complex unit or in case that there is just single member decision-making unit.

⁶⁰ JOBBER, David. *Principles and Practice of Marketing*. p.225-229

3) Decision-making process

The decision-making process can be quite time consuming and take long time or be relative short in duration. The time frame is dependent on the composition of decision-making unit. Large and complex decision-making units have mostly long processes where the decision time is long, marketing expenditures are high and quite considerable effort is on personal selling. When the purchase process is relatively short and only the purchasing manager is involved then much less effort is needed.

4) Buy class

Purchases can be decided into straight rebuy, modified buy and new task. The buy class can influence the length of the decision-making process, the complexity of the decision-making unit and number of choice criteria that are used by consumer in order to select the supplier. It can be used as a segmentation variable – the predictor of the buyers' behaviour.

5) Purchasing organisation

Purchasing organisation can be decentralized or centralized and it influences purchase decision. Centralized purchasing is made by the experts in buying a range of products. It means that the experts become more familiar with the cost factors and the strengths and weaknesses of suppliers in comparison with the decentralized generalists. Moreover, the opportunity for volume buying that means price reduction from supplier is enhanced too. These experts have also greater decision influence on decision-making unit in comparison with technical people who lack the sales expertise and influential opinion making. So the purchasing organisation character usually creates a difference among buyer behaviour and implies different marketing strategies.

6) Organizational innovativeness

The degree of innovativeness of potential buyer is a key segmentation variable when a company launches the new product. The company should identify the specifics of innovative segment when it comes to launch of the new product. Although this category is a part of microsegmentation, it should be established in the organizational size and it may be a predictor of innovativeness.

| Variable | Example |
|---|--|
| MACROSEGMENTATION | |
| Organizational size | Large, medium, small |
| Industry | Engineering, textiles, banking |
| Geographic location | Local, national, European, global |
| MICROSEGMENTATION | |
| <i>Operating Variables</i> | |
| Organizational innovativeness, Technology | Innovator, follower, laggard |
| User or nonuser status | Heavy user, Medium user, Light user, Nonuser |
| Customer capabilities | Many or few services needed |
| <i>Purchasing Approaches</i> | |
| Purchasing organization | Centralized, decentralized |
| Power structure | Engineering dominated, financially dominated... |
| Nature of existing relationship | Strong relationship needed or go after other companies |
| General purchasing policies | Leasing, service contract, systems purchase, sealed bidding |
| Choice criteria | Value in use, delivery, price, status |
| Buy class | Straight rebury, modified buy, new task |
| <i>Situational Factors</i> | |
| Decision-making process, Urgency | Long, short decision |
| Specific application | Certain application of product, All applications |
| Size or order | Large, small orders |
| <i>Personal Factors</i> | |
| Decision-making unit structure | Complex, simple |
| Buyer-seller similarity | Companies with similar values to our, different values to ours |
| Attitude toward risk | Risk-taking, risk-avoiding customers |
| Loyalty | High loyalty, low loyalty to suppliers |

Figure 5: Variables with examples of macrosegmentation and microsegmentation

Source: JOBBER, David. *Principles and Practice of Marketing*. p.210-236

1.5 Segmentation in Energy Industry

The process of market segmentation is basically similar regardless the product, so also for energy. Process should generate a number of individual groups – segments with homogenous

behaviour and with maximum differences between other groups. Several segmentation approaches and software or statistical tools can help, but the basic step should include these questions⁶¹:

- 1) What is the product and associated use? It is crucial to have a product or service, which is in our case energy or supply of energy and additional services. Optimally, enterprises want to create products that match the needs of the customers in segments. In case of energy industry, the product can be sometimes different from the one identified by the utility (the energy program selected by consumer can be different from that one which is recommended by the energy supplier).
- 2) What it is competing against? Together with the need of identifying the product and matching it with a market, it is crucial to know the others products that are competing against it. The product can be a substitute for another existing product (e.g. gas) or it can be the complement of the product (e.g. green energy). Identifying the role of the product which is playing on the market can determine important attributes for segmentation as well as identify marketing strategies.
- 3) What's the market? Some product can be demanded in the ideal world by everyone, another is more niche-oriented. Defining the group of people that could be interested in is a necessary step to do. Another important aspect is to be aware of the possibility of different applications of the product within distinct segments where each segment needs the different delivery and communication strategy.
- 4) How does the time factor into the product's adoption? Time can be also one of the important criteria in segmentation. Some companies needs more time for production of their products and they can or are not able to predict the number of electricity needed. That is why time factor can be crucial influencing the segmentation and can be one of the factors how to segment.
- 5) How can consumers in the market best be differentiated? Segments can be developed around following attributes:
 - a) Descriptive variables: Geographic, Demographic and Socioeconomic
 - b) Consumer preferences and habits: Behaviour (Needs, Values, Attitudes, Motivations and Preferences), Psychographic
 - c) Decision pathways (individual or institution)
 - d) (Energy) use patterns
 - e) Access to financing

⁶¹ MOSS, S.; CUNED, M. *Market Segmentation and Energy Efficiency Program Design*.

- f) Access to information
- g) Trust levels
- h) Competing products
- i) Equipment turnover patterns
- j) Sensitivity to price and feature
- k) Business size
- l) Employees
- m) Energy use

The previous parts introduced the general rules for market segmentation and segmentation of B2B customers. These rules should be adhered to by any sector and provide general framework how to proceed in the segmentation.

Naturally, a question arises if there are any specialties in segmentation which distinguish the electricity industry from other sectors. Undoubtedly, utilities, thus encompassing electricity business, show significant differences in strategy and business model. Consequently, this distinction mirrored into the attitude to customers as well.

Available literature about such a specific topic, which segmentation in energy industry can be described as rather brief. Very few papers, studies or books are engaged in this topic, however hints and remarks can be found in work concerned with customer-driven marketing and related topics in utilities.

The portfolio of papers from Electric Power Research Institute (EPRI) can be regarded as a matter of fact, the most important contribution to the topic.⁶² This institute published numerous publicly available studies in the field of electricity management.

Indeed, the energy industry has not been a leader in the development of customer segmentation. Rather, they are increasingly experimenting with segmentation schemes – with some notable successes.⁶³

⁶² EPRI in their own words: „The Electric Power Research Institute, Inc. (EPRI) conducts research and development relating to the generation, delivery and use of electricity for the benefit of the public. An independent, non-profit organization, EPRI brings together its scientists and engineers as well as experts from academia and industry to help address challenges in electricity, including reliability, efficiency, health, safety and the environment. EPRI also provides technology, policy and economic analyses to drive long-range research and development planning, and supports research in emerging technologies. EPRI's members represent more than 90 per cent of the electricity generated and delivered in the United States, and international participation extends to 40 countries. EPRI's principal offices and laboratories are located in Palo Alto, Calif.; Charlotte, N.C.; Knoxville, Tenn.; and Lenox, Mass.“
Source: http://my.epri.com/portal/server.pt?open=512&objID=200&mode=2&in_hi_userid=2&cached=true

⁶³ MOSS, S. J.; CUNED, M. *Market Segmentation and Energy Efficiency Program Design*. p. 6

Nonetheless, these successes should not be overrated. All in all, energy industry should be considered as rather conservative and underdeveloped regarding customer segmentation. The main flaws are three:⁶⁴

- 1) Companies do not have the right customer data at their disposal. This insufficient information about their clients creates a primary wall between what customers want and what a company offers.
- 2) Segmentation mirrors the technical aspect of company's offering. Thus, companies push their products according to product structure, but not according to the customer view.
- 3) Prevailing segmentation is usually based on sectors. In other words, companies simply sort out their (commercial, not residential) customers by the business sector. This segmentation pays little attention to actual customer needs, but rather to cost-effective and easy classification.

However, my research found two models that are used in the energy sector. The former one has been published by the Institute for Energy Engineering, Polytechnic in University of Valencia. The latter one stems from a customer research conducted by formerly mentioned Electric Power Research Institute.

1.5.1 Segmentation model A – Polytechnic in University of Valencia

The segmentation example has been published in a specialized journal, IET Generation, Transmission & Distribution, in 2007.⁶⁵ This approach typically uses top-down segmentation, which divides customer portfolio from the whole to the pieces. The segmentation model uses three-level division that are described in the following bullet points:

- First level: This layer provides the big picture for customer type – division into residential (i.e. natural persons), commercial (i.e. business) and industrial (i.e. producers).
- Second level
 - Commercial and industrial customers: Surprisingly, authors merge these two groups together and then divide them according to the Statistical Classification of Economic Activities in the European Community (NACE)⁶⁶. Due to the large

⁶⁴ MOSS, S. J.; CUNED, M. *Market Segmentation and Energy Efficiency Program Design*. p. 22

⁶⁵ ENCINAS, N. et al. Energy market segmentation for distributed energy resources implementation purposes.

⁶⁶ More information, Available from WWW

<http://ec.europa.eu/eurostat/ramon/nomenclatures/index.cfm?TargetUrl=LST_NOM_DTL&StrNom=NACE_REV2&StrLanguageCode=EN&IntPcKey=&StrLayoutCode=HIERARCHIC>

number of these categories (503), similar sectors (from the energy point of view) are clustered together. The rationale for this specific classification is justified by comprehensiveness and ease to obtain information from utilities (=compatibility with current prevailing segmentation.)

- Residential: Households are divided according to two criteria. The first one investigates the dwelling physical description, sorting out households into single-family house, single-family apartment or multi-family unit. The second criterion categorizes households into six climatic zones, differentiating among each other in the number of heating degree days and cooling days.
- Third level
 - Commercial and industrial customers: The lowest layer examines three criteria, which serve as the customer final division key:
 - a) Purpose of final energy utilisation: space heating, water heating, process heating, space cooling, process cooling, lighting, use of motors, use of computers and electronic devices, cooking (only for commercial) and electricity base processes (only for industrial). Each end-use is described according to its level of importance in the customer's total energy consumption (high, medium, low or zero).
 - b) Importance of reliability of energy supplies: very important or not so important
 - c) Total energy consumption: see the figure 6 (electricity only).

Table 1: Annual electricity consumption ranges

| Range | Consumption, kWh/year |
|-------|--------------------------|
| 1 | <600 |
| 2 | [601, 1.200] |
| 3 | [1.201, 3.500] |
| 4 | [3.501, 7.500] |
| 5 | [7.501, 20.000] |
| 6 | [20.001, 30.000] |
| 7 | [30.001, 50.000] |
| 8 | [50.001, 160.000] |
| 9 | [160.001, 1.250.000] |
| 10 | [1.250.001, 2.000.000] |
| 11 | [2.000.001, 10.000.000] |
| 12 | [10.000.001, 24.000.000] |
| 13 | [24.000.001, 50.000.000] |
| 14 | [50.000.001, 70.000.000] |
| 15 | >70.000.001 |

Figure 6: Annual electricity consumption ranges

Source: ENCINAS, N. et al. *Energy market segmentation for distributed energy resources implementation purposes*. p. 325.

- Residential: Households are divided according to two criteria:
 - a) Total energy consumption: see the figure 7 (electricity only).

Table 5: Electricity consumption ranges for residential sector

| Range | Consumption, kWh/year |
|-------|-----------------------|
| 1 | < 600 |
| 2 | > 600 and < 1200 |
| 3 | > 1200 and <7500 |
| 4 | > 7500 |

Figure 7: Electricity consumption ranges for residential sector

Source: ENCINAS, N. et al. *Energy market segmentation for distributed energy resources implementation purposes*. p. 327.

b) Secondary fuel consumption: see the figure 8

Table 6: Secondary fuel source ranges for residential sector

| Range | Consumption, kWh/year |
|-------|-----------------------|
| 1 | <4500 |
| 2 | >4500 and < 35000 |
| 3 | >35000 |

Figure 8: Secondary fuel source ranges for residential sector
Source: ENCINAS, N. et al. *Energy market segmentation for distributed energy resources implementation purposes*. p. 327.

As previously discussed, this model springs from the current reality of electricity utilities segmentation. Though it must be accepted that the model mirrors reality, it demonstrates the typical flaws that hinder the utilities from effective segmentation. Furthermore, the model represents the attitude that segments customers from the company's or product point of view. It quintessentially ignores the customer needs and focuses on the technical use of the utilities product – energy.

1.5.2 Segmentation model B – Electric Power Research Institute

A completely different attitude has been taken by Electric Power Research Institute.⁶⁷ Instead of describing the status quo of segmentation in utilities, the research team based their segmentation on a revolutionary phrase: “If you understand what really drives your customers’ decisions, it is much easier to select, design, and promote utility products and services that are consistent with the drivers and are, therefore, attractive to customers.”

In other words, EPRI took a stand of bottom-up and strived to see “the world through their (customers’) eyes”. This hypothesis has been based in customer-driven marketing that shaped the whole work flow.⁶⁸

⁶⁷ MCRAE, M.; BROWN, J. (eds). *CLASSIFY-PROFILES: Volume 2: Commercial and Industrial Customer Needs and Energy Decision Making*.

⁶⁸ The research was divided into four phases, each validating/specifying a part of the hypothesis. In the first phase, 30 companies were interviewed to seek for customer needs, purchase decision-making processes and customer attraction to energy efficiency programs. The output of this phase was 78 hypothesized requirements. In the phase 2, almost 1400 customers filled in a questionnaire based on outputs from the phase one – to be specific, customers agreed or disagreed (on the six point scale) with the 78 hypotheses, each written in two separate questions. This large data file was analysed by factor analysis to discover the main influential variables (factors). By this statistical method, the 78 needs were narrowed down to 22 most important factors, linearly combined. In the phases 3 and 4, quantitative work was detailed by group interviews and focus groups. “Voice of the customer” methodology was employed in these phases. By cluster analysis, the customers were divided into 9 segments.
Source: Ibid.

The result of the study was 22 primary needs that mostly influence the decision of a customer for an (energy) product. Subsequently, customers were divided into archetypes, thus segmented into easy-to-comprehend classes. The main findings are introduced in the following paragraphs.

Customers of utility companies stress 22 drivers that can be divided into three categories—business strategy needs, business operations needs and energy operations needs. Each need represents a different average importance for customers as is shown on a diagram.

Primary needs:

- Business strategy needs
 - Provide superior service: Energy-related products should contribute to the ability to provide superior service and to enhance the perceived quality of customers' products/services.
 - Compete on price: Offering from utility company should decrease the customer's operating expenses.
 - Market new products/services: Energy-related products should support the competence to develop new products and services.
 - Lead through technological innovation: Utilities should provide state-of-the-art energy technical solutions that keep customer on the technological edge.
 - Take risks to grow: Risk-seeking customers tend to accept new energy-related technologies or energy-savings programs.
 - Deliver high-quality products/services: Customers stressing this criterion focus their attention on how energy-related products influence the quality of their own production.
- Business operations needs
 - Department cost control: Utilities' products should lower the operating expenses of their customers, which creates better cost steering capability.
 - Long-range management: Companies putting the accent on the long-term management require utilities to offer products which "think" in the long-term. Thus, they do not avoid higher initiation cost in exchange for long-lasting benefit.
 - Centralized decisions: Industrial and commercial customers with centralized decisions prefer top-level choice, which ensures efficiency and cost-control.

- Improve business operations: Business operations are strongly related to new technologies which reduce personnel requirements, information sharing, facilities expansion, process retrofit, equipment replacement or restructuring.
- Lease equipment: A part of customers prefer lease of equipment instead of purchase due to various reasons. It helps them preserve capital, reduce maintenance costs and try out novel technologies.
- Improve cash position: Some companies require that energy-related products are not burden the cash flow. In other words, the products should demand the least entrance cash expenses as possible.
- Energy Operations Needs
 - Clean power: As the title suggest, companies express positive attitude towards energy generated by environmental-friendly sources.
 - Continuous power: This requirement articulates the need for the minimum number of power outages, which naturally present a disaster for business operation.
 - Improved equipment efficiency: Some companies favour efficiency in terms of lower operating costs and they do not mind higher initial costs.
 - Supportive utility relationship: Business customers demand appropriate account management with clear communication, accessibility and open interaction.
 - Lower rates: With reference to the ground principles of economics, customers simply prefer lower price than the higher one.
 - Efficient technologies and control: As spoken before, companies strive for energy efficiency and control of its use.
 - Back-up generation: Part of companies cannot afford to endure power black-out and the energy supplies must be restored almost immediately (hospitals, traffic control, servers etc.)
 - Custom services: Commercial and industrial customers appreciate not mass market, but tailor-made approach. These individual consultations support the relationship with the utility and ensure the optimal energy rate and lower energy consumption.
 - Managed energy use: Some companies employ a so-called energy manager whose responsibility is to keep the energy consumption (but not necessarily energy bills) on the low level.
 - Flexible billing: Unlike residential customers that cannot be provided with individual invoice due to their high number, business customers push utilities to

this service. As a result, business customers can be given an invoice which fits their needs (consolidation, use of energy, administrative distribution etc.)

Careful studies of the 22 needs of companies reveal that some repeat and might be even identical. What is the cause for this repetition? Of course not a simple mistake, but rather a different decision groups which make choices in the company's hierarchy. To be specific, the business strategy needs express wishes of owners or CEO, business strategy needs of CIO or CFO, and energy operations needs of procurement manager.

Naturally, these requirements cannot be put on the same level and they were differently ranked in the questionnaire. As the following graphs show, some needs beat others. Each graph expresses one group of needs; the more the line leans to the right the more important the need for interviewees was.

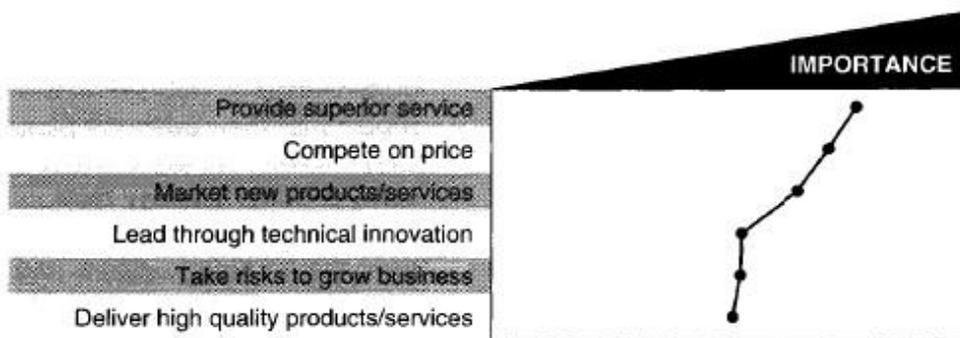


Figure 9: Classification of needs importance, business strategy needs. MCRAE, M.; BROWN, J. (eds). CLASSIFY-PROFILES: Volume 2. p 3-7.

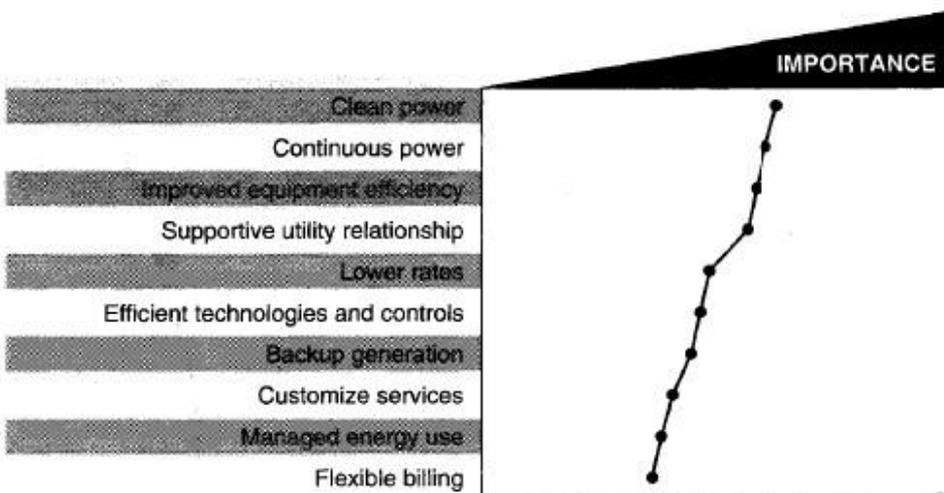


Figure 10: Classification of needs importance, business operations needs. MCRAE, M.; BROWN, J. (eds). CLASSIFY-PROFILES: Volume 2. p 3-10.

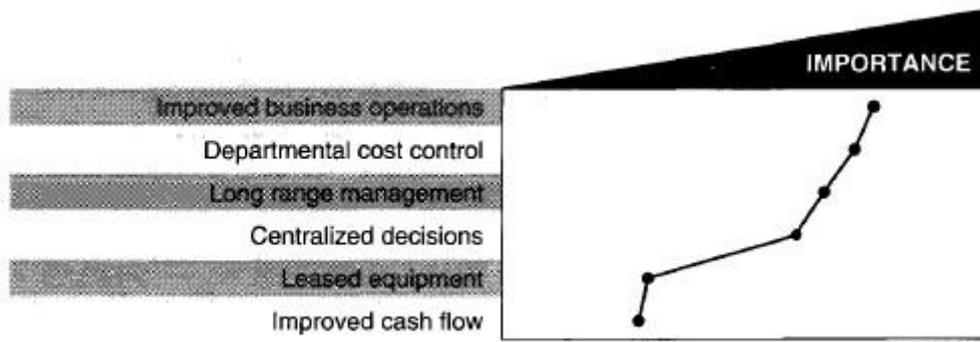


Figure 11: Classification of needs importance, energy operations needs.
 MCRAE, M.; BROWN, J. (eds). CLASSIFY-PROFILES: Volume 2. p 3-13.

These 22 needs were thoroughly analysed and clustered, in order to get meaningful customer categories. In addition, customer profiles were added to the data set and the whole process resulted in nine customer segments, divided into four groups: (1) leading edge, (2) solid implementor customers, (3) slow changing customers and (4) troubled customer. All of these are briefly introduced in the next part.

1.5.2.1.1 Leading Edge

| Name | Proactives | |
|---------------------|---|--|
| Description | Aggressively managed, market focused, price-sensitive and risk-accepting | |
| Energy Needs | Proactives are very demanding customers with large and various portfolio of needs. All in all, they prefer managed energy use with a total control, perfect custom service, flexible billing, and deliveries of uninterrupted, clean and back-up power. | |
| Example | Commercial | Flagship store of a large, respected grocery store chain |
| | Industrial | PC manufacturing site for market leader |
| Share | Commercial | 13% |
| | Industrial | 29% |

| Name | Innovators | |
|---------------------|--|---|
| Description | Risk-friendly, technological leadership, product-development oriented, quality lead | |
| Energy Needs | Innovators focus on their main goal – novelty. So, they do not consider energy consumption or strict cost control as their main issue. Regarding the energy supplies, innovators only require clean and continuous power deliveries. | |
| Example | Commercial | New headquarter building for telecommunication operator |
| | Industrial | High-quality DIY manufacturer |
| Share | Commercial | 8% |
| | Industrial | 19% |

1.5.2.1.2 Solid Implementor Customers

| Name | Conservatives | |
|---------------------|---|-------------------------------------|
| Description | Risk-averse, price-insensitive, technologically conservative, importance of relations | |
| Energy Needs | Conservatives put stress on stable rates and perfect account management from utilities with supplies of clean and uninterrupted power. On the other hand, energy-saving technologies do not interest them at all. Energy consumption varies from very low to very high. | |
| Example | Commercial | Mid-size elderly homecare facility |
| | Industrial | Manufacturer of shipping containers |
| Share | Commercial | 9% |
| | Industrial | 5% |

| Name | Self-reliants | |
|---------------------|--|---|
| Description | Full faith in existing products, superior quality and service, reluctance to expansion | |
| Energy Needs | Self-reliant consume less energy than average, with very low energy bill. They generally do not invest in energy saving and tolerate easily any power outages or quality problems. | |
| Example | Commercial | Small physiotherapy medical office in a newer building |
| | Industrial | Small manufacturer of electronics with prevailing hand labour |
| Share | Commercial | 13% |
| | Industrial | 5% |

1.5.2.1.3 Slow Changing Customers

| Name | Dependents | |
|---------------------|---|--|
| Description | Mass market, average, price competitive, service oriented | |
| Energy Needs | Dependents require wide range of needs, but not on the highest level: clean and uninterrupted power, account management, back-up generation and energy efficiency. Usually, these customers rely on fully on electricity and power blackout presents a large problem for them. Also, they spend more than average on energy improvements. | |
| Example | Commercial | Insurance company with large server rooms |
| | Industrial | Manufacturing site for multinational machinery company |
| Share | Commercial | 13% |
| | Industrial | 5% |

| Name | | Status Quos |
|---------------------|--|---|
| Description | Average, flaws in cash flow, little product development, low-quality service | |
| Energy Needs | Status Quos show moderate energy consumption and easily tolerate power outages. Furthermore, this type of customer does not invest heavily into energy improvements and technical novelties. | |
| Example | Commercial | Three-floor family owned clothing shop |
| | Industrial | Printing company for regional newspaper |
| Share | Commercial | 14% |
| | Industrial | 3% |

| Name | | Utilitarians |
|---------------------|---|------------------------------------|
| Description | Various strategies, business drive, customer-oriented, innovative | |
| Energy Needs | Utilitarians plan their energy in the long-term and do not respond positively to any energy-related improvements. Power outages do not present any significance to them, since also their energy volume lies below average. | |
| Example | Commercial | Office of real estate agency |
| | Industrial | Small rubber manufacturing factory |
| Share | Commercial | 11% |
| | Industrial | 12% |

1.5.2.1.4 Troubled Customer

| Name | | Survivors |
|---------------------|---|---|
| Description | Poor financial performance, price competition, innovative, low-quality | |
| Energy Needs | Survivors put stress on stability and level of energy price. Further they invest the rest of cash into energy-related improvements. Unlike other customers, survivors spend much more on costs connected with energy. | |
| Example | Commercial | Catering company with stagnant revenues |
| | Industrial | Manufacturer of car accessories with one monopsony customer |
| Share | Commercial | 10% |
| | Industrial | 11% |

| Name | | Besieged |
|---------------------|--|--|
| Description | In crisis, short-term focus, low free cash flow, priority of obtaining cash | |
| Energy Needs | Besieged customers generally do not have difficult needs and due to financial distress they cannot invest any money into energy improvements. Their energy consumption is rather low and they are not sensitive to power outages or quality of supplies. | |
| Example | Commercial | Music store that is on the verge of business viability |
| | Industrial | Dress manufacturer facing severe competition |
| Share | Commercial | 10% |
| | Industrial | 3% |

2 Analytical part

“If you are not customer oriented, you are disoriented”

Philip Kotler, Professor of International Marketing at Kellogg GSM

2.1 CEZ Group – Introduction of the Company

CEZ Group is a vertically integrated company operating mainly in the production and distribution of the power in the Central and Southern Europe. Nowadays, CEZ Group is one of the 10 largest energy companies in Europe, as measured according the number of customers as well as in terms of installed capacity.⁶⁹

CEZ Group is engaged in different activities as the production, sale and distribution of electricity energy in the region of Central and Southern Europe with an emphasis on the Czech Republic and surrounding states. The foundation of CEZ Group can be dated back to 1992 when there was a conversion of the former state enterprise Czech power plants into a joint stock company. CEZ Company dominated most of the electricity distribution and thus it was gaining access to end customers (large as well as small). In 2005, CEZ also acquired the North Bohemian coal mines, the main supplier of coal for thermal power plants, by buying shares of companies from the Czech government. CEZ Group has thus become fully vertically integrated. Most of the energy is generated by coal and gas power plants (according to the Annual report 2010, 44% of gross generation)⁷⁰.

In the same time CEZ is an active player in the market brown coal (on both the demand and supply) in the manufacture and distribution of thermal energy and actively trades electricity. The strategic objective of the energy company CEZ is to become a leader in the electricity markets in Central and Southeaster Europe⁷¹. CEZ shares are traded on the Prague and Warsaw Stock Exchange.

2.2 Current Segmentation of Customers in CEZ⁷²

In general, CEZ Group uses the form of customer segmentation referred to as “firmographics”⁷³ This popular method has a strong rationale, but can be easily copied by/from competitors due to

⁶⁹ CEZ Group web site available from WWW <<http://www.cez.cz/cs/o-spolecnosti/skupina-cez/o-skupine-cez/profil-skupiny-cez.html>>

⁷⁰ CEZ Group Annual Report 2010, p. 111

⁷¹ CEZ Group web site available from WWW <<http://www.cez.cz/en/cez-group/cez-group.html>>, [accessed 2011-03-20].

⁷² Most of the information about B2B segmentation in the CEZ Group was gathered by personal interviews with Milan Soukup from the sales department.

⁷³ HARRISON, Matthew ; HAGUE, Paul ; HAGUE, Nick. *Why Is Business-to-Business Marketing Special?*

its simplicity. In contrast, up-to-date marketing suggests more convenient form of segmentation for company based on behaviour or needs.

As the main leitmotiv, all the customers are primarily segmented according to the volume of consumed electricity. The consumption level of business-to-business is so different that usually it is more useful to divide them into smaller groups (strategic, important, transactional=smaller)⁷⁴.

CEZ divides its clients into three major segments. The first segment is the consumer segment, second segment of the business customers and the last, very specific, is the segment of public sector. In order to better understand it, the figure represents the segmentation that will be described further in the next section.

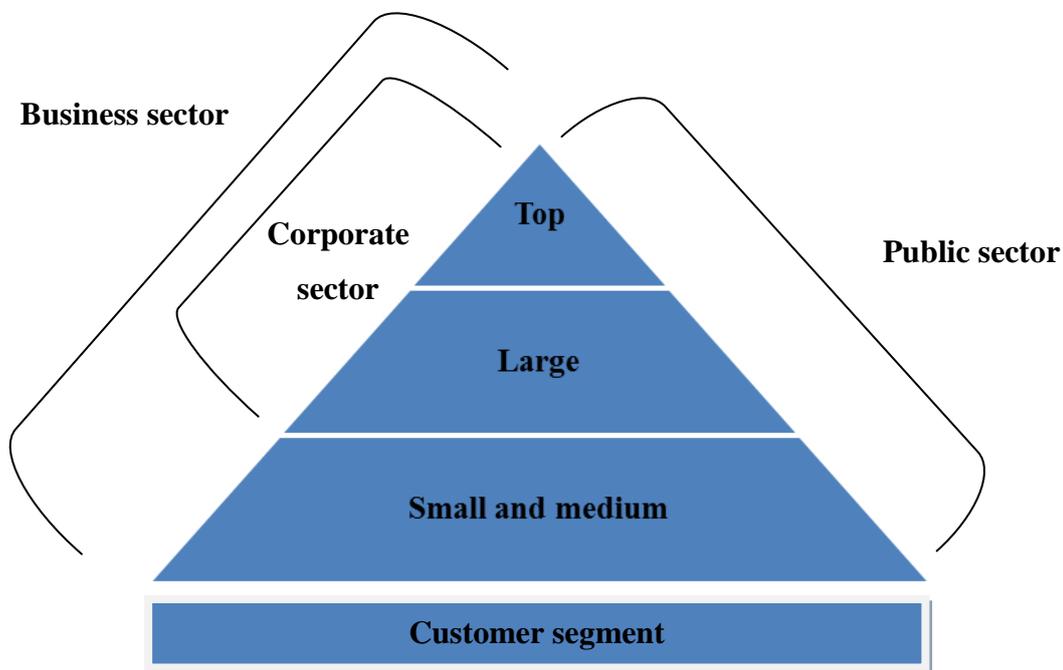


Figure 12: Segmentation of customers in CEZ Group

Source: Own visualisation

Key account manager in the upper segment has fewer customers in his portfolio than the smaller business representative in his segment in order to ensure better care for their most important clients. Segmentation of customers is reflected in the organizational structure society. Customer segmentation is not static and this applies especially to business customer segment where the customer can move from a lower to a higher segment, or vice versa, according a monthly value of electricity used.

⁷⁴ HARRISON, Matthew; HAGUE, Paul ; HAGUE, Nick. *Why Is Business-to-Business Marketing Special?*

In the next part, I would like to describe the basic distribution customers in CEZ. Since the thesis deals with the B2B segment, I will focus primarily on specific of the B2B segment, but also delineate the main characteristic of retail market as well.

2.2.1 Consumer segment

Consumer segment represents especially the two sub-segments:

- Households with small consumption of electricity
- Small entrepreneurs

Small businesses and households do not consume large quantities of energy. These consumers do not own the transformer and they do not usually have any special manager or business representative who takes care of them. The contact centre for them is the call service of CEZ where they can get all necessary information.

2.2.2 Business sector

Business segment divides customers into the three basic groups according to their electricity consumption. Small and medium segment (abbreviation SME) includes companies whose consumption does not exceed 3 GWh a year and who have their own transformer. The boundary that separates the corporate segment from small and medium segment is the monthly consumption of energy of 3 GWh and the individual service that is offered to them.

2.2.2.1 Corporate sector

Corporate customer segment can be further divided into the following sub-segment:

- Top
- Large

The division of customers into these sub-segments is also based on the monthly consumption of energy. This segmentation criterion has significant importance, because this division assumes the solution. It determines the products that customer needs and it also helps company to address them with a suitable company offer.

Top customers

Clients who consume more than 40 GWh per year are included to the top sub-segment. These clients are the largest companies on the market, usually with the highest quality demands. Within this sub-segment, the customers are further distinguished by the business field and they are

divided into so-called verticals. Clients of this segment have diverse needs and that is the reason, why sales managers⁷⁵ and KAM⁷⁶ are assigned to the customers.

The number of sales representatives in the top segment is approximately 15 and therefore one sales representative have around 3-20 customers. In comparison with “traditional” sales representatives, the clients of this sub-segment are large factories and companies that are interested in special care or services.

Large customers

Customers whose yearly energy consumption is between 3 GWh and 40 GWh are considered as large customers. Classification of customers into one of this sub-segment again depends on the value of their monthly power purchase. Sub-segment of large customers is divided according the regions. The clients receive care by special service and key account managers.

2.2.2.2 Small and medium customers sector

Small and medium segments (SMEs) are still further subdivided, as the name suggests, according to their yearly consumption of electricity power into:

- Small
- Medium

The small sub segment can be defined by “smaller” clients, who are entrepreneurs with higher consumption of energy than average retail customer and the yearly value of their energy consumption does not exceed 1,5 GWh.

Medium sub-segment consists of customers who consume up to 3 GWh per annum.

2.2.3 Public sector

The segment of public sector is very diverse and it divides its customers into three sub-segments:

- Central government: Segment of the central government comprises central government institution, e.g. Ministry of Agriculture or the Department of Transport.
- Regional: Regional segment of the county is responsible for regional offices, universities or local authorities.
- Local: The local segment takes care of small municipal authorities.

⁷⁵ Sales manager or lead-team member supervises Key Account Managers.

⁷⁶ Account managers take care of their customers together with support staff that helps Account managers with realisation or preparation of materials for trade negotiations. Account manager can be internal salesman which is part of sales team or it can be external contractor.

In general, public sector belongs to the important consumer of energy. In 2008, the consumption of public sector reached 1.88 TWh.⁷⁷ Problematic issue with this customer is late payment and the difficulty of the process of forming agreement.

2.3 Proposed segmentation tool and its objectives

Nowadays not many segmentation methodologies in energy sector are existing and broadly used on the Czech market. As I presented in the first part, there are several incentives to cluster customers into groups according to more sophisticated criteria than electricity consumption, but the latter option still largely prevails in today's electricity sector. Although some strategies and case studies were already trying to define the most important factors for the segmentation, the evaluating system that succeeded, still does not exist.

The aim of the practical part will be to take learning from the interviews with the representatives of the energy company CEZ Group as well as case studies already tested abroad. Moreover, a better approach to segmentation of the customers will be sought.

Being inspired from the theoretical part, the basic division of criteria of customers is described in order to have some basic approach to segmentation methodology. Then the weight of individual assumptions is closer scrutinized.

Thanks to this approach it will be enabled to define the methodology that can determine the groups of the customers, criteria and their importance. The findings will be taken from the theoretical and practical experiences. EPRI institute influenced the proposed tool in the most significant way

2.3.1 Research goals

2.3.1.1 Segmentation criteria

In short, I defined 20 criteria that allow us to assess a customer in a broad sense and consequently classify them into an appropriate segment. Generally, a methodology has been converted from EPRI, who identified the basic criteria for segmentation. However, ERPI has not proposed a useful segmentation tool, but made a great contribution in segmentation according to the behaviour characteristic.

The proposed criteria assess four different areas – basic identification, business strategy needs, business operation needs and energy operation needs.

⁷⁷ Czech Statistical Office [online]. [accessed 2011-08-05].; Consumption of fuels and energy according to sector, code ENE0030UU. Available from WWW
<http://vdb.czso.cz/vdbvo/tabparam.jsp?voa=tabulka&cislotab=ENE0030UU&&kapitola_id=34 >

| Criteria group | Criterion |
|-------------------------------------|--|
| 1) Basic identification | B2C, B2B (industrial/commercial) |
| | Number of employees |
| | Private/public |
| 2) Business strategy needs | Competitive price |
| | Energy consumption |
| | Superior service and high-quality products |
| | Innovation and new product |
| | Risk sensitivity |
| 3) Business operations needs | Departmental cost control |
| | Business operation effectiveness |
| | Centralized decisions |
| | Leased equipment |
| | Cash position |
| 4) Energy operations needs | Continuous power |
| | Equipment efficiency |
| | Utility relationship |
| | Tariffs and appropriate rates |
| | Efficient technology and equipment |
| | Managed energy used |
| | Customers service |

Figure 13: Segmentation Criteria

2.3.2 Research Methodology

All customers' needs are going to be identified based on the questionnaire proposed. The questionnaire is divided into more subgroups described as segmentation criteria group. The basic identification of the B2B customers as the size and the sector of the customer will be used just for the need of the company to have the basic perception about the sample asked.

2.3.2.1 Questionnaire design

The form of the questionnaire comprises of three multiple choice questions and 20 statements. In these statements, a respondent can strongly agree, agree, disagree, strongly disagree or have no opinion. Only one answer per statement is allowed.

Basic identification of the customer:

1. Which business sector does your company belong to?

- a. Business to Business Commercial type
 - b. Business to Business Industrial type
 - c. Business to Customer
2. How many employees do you have?
 - a. Up to 50
 - b. Up to 250
 - c. More than 250
 3. Are you part of the private or public sector division?
 - a. Private
 - b. Public

Business strategy needs:

4. High-quality product and superior service provided by my energy supplier that focuses on my needs and contributes to my perception of the service quality is important for me.
5. Cheaper energy price is the most important criterion when I am looking for the supplier of energy.
6. New products and services are important for me and it is the way how to attract and keep me as the customer.
7. My energy supplier should belong to group of the adapters of new energy technological innovations as they are one of a strategic benefit for me.
8. I am willing to take the risk in order to get better energy-related technologies or energy-related programs.

Business operation needs:

9. Departmental cost control will help us in assessment of our business and will be additional advantage in cost control in comparison with the competition.
10. Our company prefers to have long-range approach to business planning so the programs and services with longer paybacks.
11. Our decision-making process is centralized and any investment decision can take a longer time in order to get it approved.
12. Our company tends to adapt new technologies if the technology improves the operations and offers us operating benefits as cost reduction.
13. We prefer to lease equipment with a high front-end investment before purchasing it.
14. We would like to invest in tariffs improving the financial performance where the front-end investment is minimized.

Energy operation needs:

15. We have a strong need for continuous power and we desire to minimize the number of outages.
16. Operating efficiency that lowers operating costs is a significant need for us.
17. We want to have an account representative who understands our business to whom we can have open and easily accessible communication.
18. We care about energy tariff and we want to have the most favourable option that would lower the cost of energy.
19. Efficient technologies and controls can improve our efficiency of operations.
20. We need to maintain a backup generating capability of energy.
21. Our company would like to have an opportunity of energy management assistance that will develop workable solutions.
22. Energy management service would help us to manage more effectively the way that energy is used at our facilities.
23. Flexible billing structure that fits our requirements would help us to optimize our operations.

2.3.2.2 The method of data collection and selection decisions

A process of market segmentation that I decided to use in my work was mainly the systematic approach. As my thesis is interested in B2B sector, it was very difficult to get the primary data on my own, although I conducted a small research in the next step of the analyses called the inductive segmentation.

In my deductive approach part, I was comparing the diverse resources about the groups of customers on the systematic way. Using this approach, I pursued to discover the significant segments which the other international organisations are already using. Thus, I used the results of the studies already verified abroad.

Particularly interested in the competitors offering similar products on the market, observing the tool of their marketing mix and the competitive areas nowadays, I was able to clearly define the characteristics of different segments.

However, the deductive segmentation approach is completed in the step two or three of the whole segmentation process (see the figure below). That is why, it is important to use also inductive segmentation and make research over the approaches already used to discover relevant segments. In order to confirm the new model of segmentation, I was using a priori forward

segmentation through the questionnaire sent to several representatives from B2B energy sector customers. My goal was to match them with the case study where the post hoc backward analysis was already approved. As a priori I decided to use the group of characteristics that were defined for each segment by the ERPI research case study.

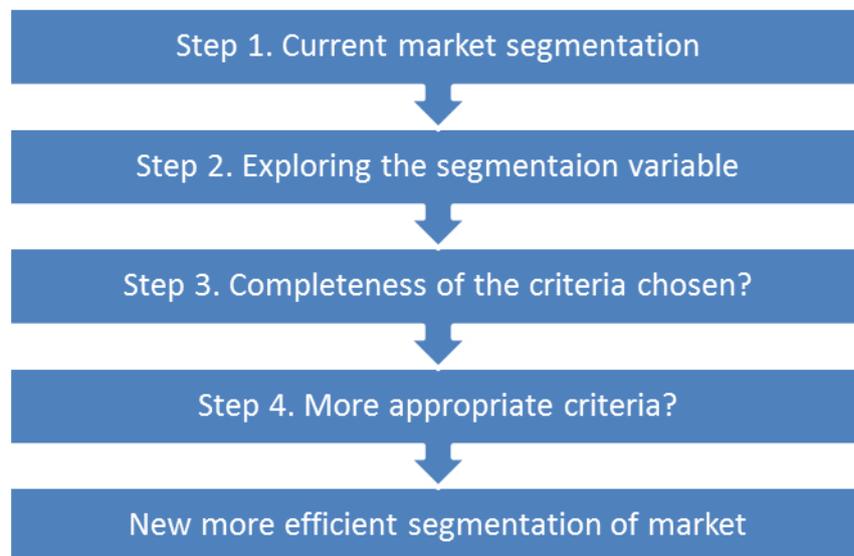


Figure 14: Schematic visualisation of segmentation process
Source: KOUDELKA, Jan. *Segmentujeme spotřební trhy*. p. 113.

2.3.2.3 Primary research

As data collection method chosen to collect the primary data, the following tools were chosen: personal interview and questionnaire. Simply said, we need to fill in an evaluation questionnaire for each customer to get their profile and confirm our secondary data research that determines the more efficient tool for segmentation.

The primary data research was combination of the two approaches. First approach was the personal meeting. Although it can represent more complicated approach, in case of B2B business it bears more inherent advantages compared to other survey methods. As this sector requires much more attention and knowledge gain, the specific individuals has to be interviewed (COO, decision makers, influencers etc.) and more supportive question can be asked to identify better the needs of the specific customers. Furthermore, the personal interview allows us to see their criteria for energy industry as well as vice versa the actual way of segmentation in B2B sector can be seen. The personal meeting and supportive questions may lead respondents to answer questions more truthfully, so the quality of the data is increased.

In this part of my research I make an interview with representatives of CEZ Group. I met with the sales department and I was discussing with them mainly the actual situation on the B2B sector as well as their actual approach to dividing their customers into groups. The interview was divided into three parts. First, respondents were introduced to the topic and informed about the goal of the interview. Respondents were informed about the anonymity and asked for their personal perceptions and opinions. Then, they were asked about the current situation of the energy needs and their opinion about the segmentation. They were advised to make sure that they were talking about the topics and areas that have sufficient knowledge about so they could offer me with the real image. In the third part, the questions addressed to respondents were related to their needs and perception of the ideal segments and addressing of the needs.

Second approach was based on the questionnaire. The inspiration from the theoretical part and interview research was taken into account when I was determining the most appropriate questions that characterise the segmentation needs. In the theoretical part, the following needs were determined: business strategy needs, business operations needs and energy operations needs (ERPI inspiration). Through the interview process I found out other important traits that help us in creation of the tool determining segmentation. The questionnaire has 23 questions that find out if the needs described in the theoretical part are present and developed enough from the side of the utility company to customers. According these findings the customer segments were identified. The questionnaire does not necessarily have to be filled by customers themselves. Of course, this method would bring the most sincere results and much less communication noise. However, there are numerous obstacles that would arise when a paper questionnaire is given to a customer. For instance, a customer could simply reject, ask questions about segmentation itself or even give insincere question to get better conditions or impress. Thus, a second best solution appears to be when account manager/salesman fills in the questionnaire on behalf of the customer (no matter if customer know about it or not). By this solution a utility provider obtains the data for any customer, with or without his/her interaction. I sent my questionnaire to various Czech companies, as each size and sector of the customer would be included there. From my requested questionnaires I got 26 samples back. The structure of size, type and sector distribution is following:

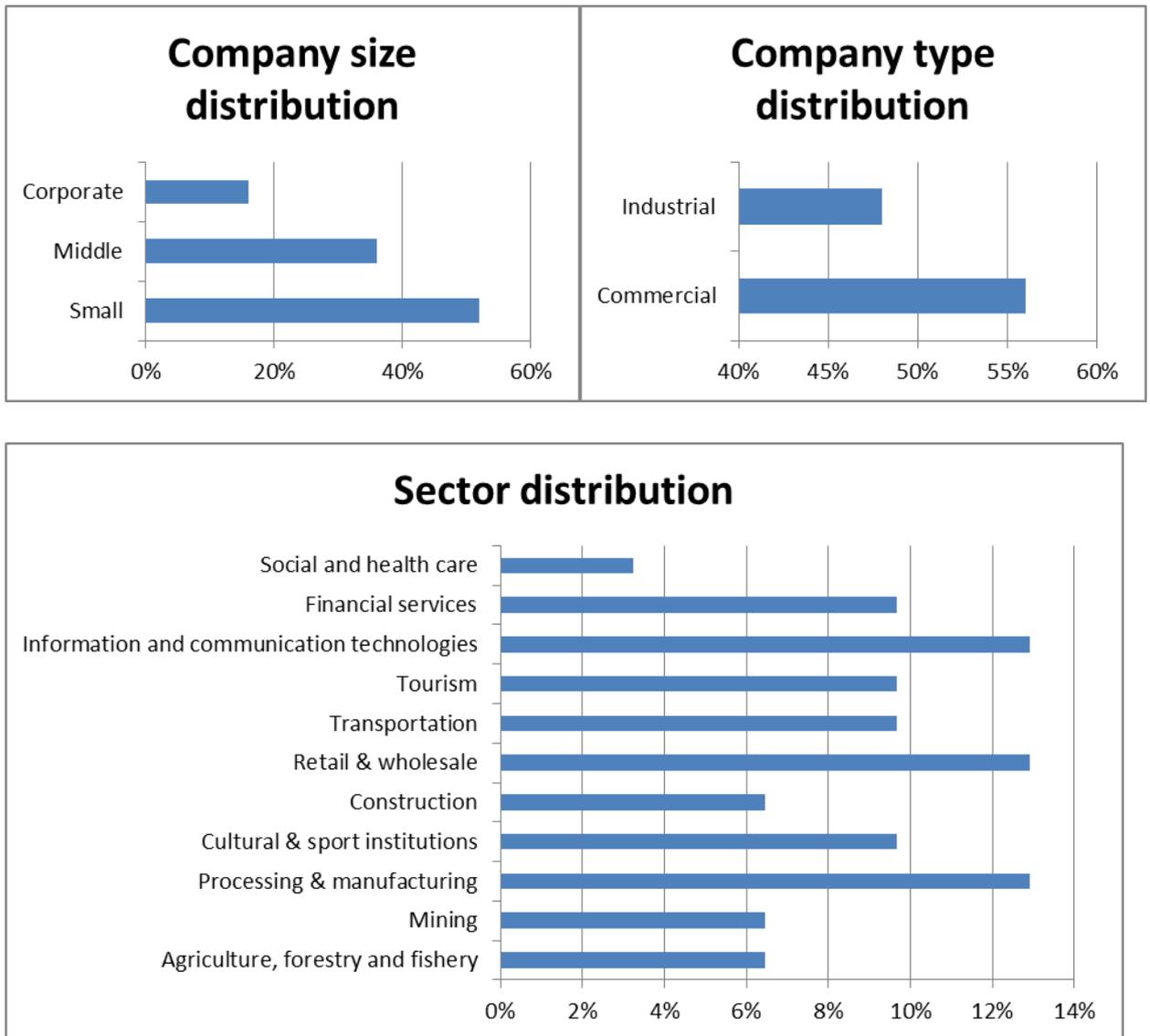


Figure 15: Size, type and sector distribution of replies

2.3.2.4 Data processing

As my methodology partially piles on the best practice from abroad and in the same time creates new tool how to get to segments, I will describe the data processing in two steps. Firstly, I will explain the method used in the case study of ERPI. Here the factor analysis was used to evaluate the importance and connection between the considered criteria. The analysis is based on the correlation ratio among segmentation variables. Using the method of factor extraction, the most important differences of customers are discovered. The factors are actually the criteria of segmentation, in our case needs. The main representative criteria for group of needs were selected.

Secondly, I was preparing the new tool based on the weight of frequency responses within segments. The tool was based on assumption that Czech and U.S. B2B customers are similar in their energy needs. The results of the questionnaire were sent to representatives of customers and

then they were evaluated in the MS Excel tool. The weighted importance of responses was evaluated and the individual segment character of customer can be chosen. In this database of research the affiliation of the respondents to the segment can be observed. This approach will be explained more in the next part.

As the goal of my thesis was to go further in the segmentation methodology on energy market, I will not deeply explain the factor analysis process of the ERPI case study, but I would like to concentrate on the tool that I created by myself. This tool can be used directly by the energy company representatives to divide their B2B customers into segments and provide them with the service and product needed.

2.3.2.5 Questionnaire Evaluation

After filling in the questionnaire, the assessment follows in order to categorize customers into nine respective profiles. For this purpose, the most probable replies of the typical representative of the profile group are determined, which is shown in the table below. In other words, I determined the most likely answer that a specific group would give. These answers are exclusively based on the methodology delivered by ERPI, since it analysed the approach of customer groups to specific factors. For short summary of profiles, see the chapter 1.5.2 “Segmentation model B – Electric Power Research Institute”, which shows the shortened key characteristics of respective profiles, mostly based on the 22 isolated customer needs. To be specific, ERPI model used their own process how to discover the segments and their description. Their method, based on post hoc forward segmentation, is depicted in the note#59 (page 46). In short, the main proceeding of this thesis was application of ERPI segmentation to the Czech market, by developing a practical tool to discover profiles in customers and by conducting a brief research to see the overview situation on the Czech electricity B2B market.

To introduce the following table, it shows the most probable answers, how the respective segments would answer (or should answer). The answers are chosen according to the character of the profiles.

| Question # | Leading edge | | Solid implementers | | | Slow changing | | Troubled | |
|------------|--------------|------------|--------------------|---------------|------------|---------------|-------------|-----------|----------|
| | Proactives | Innovators | Conservatives | Self-Reliants | Dependents | Utilitarians | Status Quos | Survivors | Besieged |
| 1 | A/B | A/B | A/B | A/B | A/B | A/B | A/B | A/B | A/B |
| 2 | C | A | A | A | C | B | A | C | A |
| 3 | C/B | A | A | A | A | A | A | A | A |
| 4 | SA | SA | N | A | A | SA | A | A | A |
| 5 | N | A | N | N | N | SA | SA | SA | A |
| 6 | SA | SA | D | SA | N | SA | N | SA | D |
| 7 | SA | SA | D | SA | N | SA | N | A | N |
| 8 | A | SA | SD | D | A | N | N | A | N |
| 9 | N | SA | A | SA | SA | N | SA | A | SA |
| 10 | D | A | N | A | SA | SA | N | A | A |
| 11 | SA | D | SA | D | SA | SD | D | SA | SA |
| 12 | SA | SA | SD | SA | SA | SA | N | A | N |
| 13 | N | SA | N | N | A | D | A | SA | N |
| 14 | N | SA | N | N | A | D | S | SA | N |
| 15 | A | SA | A | N | SA | N | N | N | D |
| 16 | N | SA | N | A | SA | A | A | SA | N |
| 17 | A | N | N | N | A | N | N | N | D |
| 18 | A | A | N | N | A | N | N | SA | N |
| 19 | A | A | SD | A | A | A | N | A | D |
| 20 | A | SA | SD | D | SA | N | N | SA | D |
| 21 | SA | N | D | N | SA | D | N | A | D |
| 22 | N | A | D | SA | SA | SD | N | A | D |
| 23 | SA | N | D | N | SA | N | N | SA | D |

SA = Strongly agree, A = Agree, N = No opinion, D = Disagree, SD = Strongly disagree

Figure 16: Questionnaire

Naturally, now a way how to obtain comprehensible results must be explained:

- 1) The answers are copied into the typical answers sheet. One choice (for example “agree”) can be written to more cells in one row (one row equals one statement and one column equals one profile) or it can be omitted completely. The reason for this is that different profiles can have same opinion about a specific topic.

- 2) In each column, the number of crosses (or recorded answers) is summed. By this procedure, a natural number in each column (= profile) is obtained.
- 3) In order to increase clarity, all the numbers together are summed and then give back percentage results to each profile.
- 4) The three highest results are selected and the rest is ignored. By this, the profile composition of each customer is obtained, also with accompanying weights.

2.3.3 Example of evaluation

Since the evaluation system might be slightly unclear, an example is given in order to demonstrate the evaluation process.

First, a customer or utility representative on his/her behalf fills in the questionnaire. The answers are written in green.

Basic identification of the customer:

1. Which business sector does your company belong to?
 - a. Business to Business Commercial type
 - b. Business to Business Industrial type
 - c. Business to Customer
2. How many employees do you have?
 - a. Up to 50
 - b. Up to 250
 - c. More than 250
3. Are you part of the private or public sector division?
 - a. Private
 - b. Public

Business strategy needs:

4. High-quality product and superior service provided by my energy supplier that focuses on my needs and contributes to my perception of the service quality is important for me. *No opinion*
5. Cheaper energy price is the most important criterion when I am looking for the supplier of energy. *Agree*

6. New products and services are important for me and it is the way how to attract and keep me as the customer. *No opinion*
7. My energy supplier should belong to group of the adapters of new energy technological innovations as they are one of a strategic benefit for me. *Agree*
8. I am willing to take the risk in order to get better energy-related technologies or energy-related programs. *Agree*

Business operation needs:

9. Departmental cost control will help us in assessment of our business and will be additional advantage in cost control in comparison with the competition. *Strongly disagree*
10. Our company prefers to have long-range approach to business planning so the programs and services with longer paybacks. *Strongly agree*
11. Our decision-making process is centralized and any investment decision can take a longer time in order to get it approved. *Disagree*
12. Our company tends to adapt new technologies if the technology improves the operations and offers us operating benefits as cost reduction. *Strongly disagree*
13. We prefer to lease equipment with a high front-end investment before purchasing it. *Agree*
14. We would like to invest in tariffs improving the financial performance where the front-end investment is minimized. *Agree*

Energy operation needs:

15. We have a strong need for continuous power and we desire to minimize the number of outages. *Strongly agree*
16. Operating efficiency that lowers operating costs is a significant need for us. *Strongly agree*
17. We want to have an account representative who understands our business to whom we can have open and easily accessible communication. *Agree*
18. We care about energy tariff and we want to have the most favourable option that would lower the cost of energy. *Strongly agree*

19. Efficient technologies and controls can improve our efficiency of operations. *No opinion*
20. We need to maintain a backup generating capability of energy. *Strongly agree*
21. Our company would like to have an opportunity of energy management assistance that will develop workable solutions. *Strongly agree*
22. Energy management service would help us to manage more effectively the way that energy is used at our facilities. *Strongly disagree*
23. Flexible billing structure that fits our requirements would help us to optimize our operations. *Strongly agree*
-

The next step involves copying the answers in typical answers' sheet.

| Question # | Leading edge customers | | Solid implementors | | | Late adapters | | Troubled companies | |
|------------|------------------------|------------|--------------------|---------------|------------|---------------|-------------|--------------------|----------|
| | Proactives | Innovators | Conservatives | Self-Reliants | Dependents | Utilitarians | Status Quos | Survivors | Besieged |
| 1 | A/B | A/B | A/B | A/B | A/B | A/B | A/B | A/B | A/B |
| 2 | C | A | A | A | C | B | A | C | A |
| 3 | C/B | A | A | A | A | A | A | A | A |
| 4 | SA | SA | N | A | A | SA | A | A | A |
| 5 | N | A | N | N | N | SA | SA | SA | A |
| 6 | SA | SA | D | SA | N | SA | N | SA | D |
| 7 | SA | SA | D | SA | N | SA | N | A | N |
| 8 | A | SA | SD | D | A | N | N | A | N |
| 9 | N | SA | A | SA | SA | N | SA | A | SA |
| 10 | D | A | N | A | SA | SA | N | A | A |
| 11 | SA | D | SA | D | SA | SD | D | SA | SA |
| 12 | SA | SA | SD | SA | SA | SA | N | A | N |
| 13 | N | SA | N | N | A | D | A | SA | N |
| 14 | N | SA | N | N | A | D | S | SA | N |
| 15 | A | SA | A | N | SA | N | N | N | D |
| 16 | N | SA | N | A | SA | A | A | SA | N |
| 17 | A | N | N | N | A | N | N | N | D |
| 18 | A | A | N | N | A | N | N | SA | N |
| 19 | A | A | SD | A | A | A | N | A | D |
| 20 | A | SA | SD | D | SA | N | N | SA | D |
| 21 | SA | N | D | N | SA | D | N | A | D |
| 22 | N | A | D | SA | SA | SD | N | A | D |
| 23 | SA | N | D | N | SA | N | N | SA | D |
| Σ | 5 | 6 | 3 | 2 | 13 | 3 | 5 | 8 | 2 |
| % | 11% | 13% | 6% | 4% | 28% | 6% | 11% | 17% | 4% |

Figure 17: Questionnaire evaluation

Clearly it can be observed that the three most dominant profiles in the customer are: Dependent (28%), Survivor (17%) and Innovator (13%). Since the percentage for the dependent profile is particularly high, we can assume that the customer mostly fits to the dependents group. As a managerial implication, a suitable product through appropriate sales process should be offered to them.

2.3.4 Classification into profile groups

According to the questionnaire replies, the customers' most important needs have been identified and grouping customers into the segment can begin, where they differ in the importance of their needs. The basic division of the customers can be described by the four broad groups: *leading edge, solid implementors, slow changing and troubled*.

Leading edge customers prefer new technology and they continually want to improve their products, market share and operations. In this group are included: Proactives, Innovators

Solid implementers are not innovators and they prefer proven products, customer base and operations. They are in a good economic situation and they are ready to adopt proven technology. In this group are included: Conservatives, Self-Reliants

Late adapters adopt new technologies relatively later and they are not so interested in changing their product line. They are often only marginally profitable. In this group are included: Dependents, Status Quos, Utilitarians

Troubled companies have difficulty to be profitable and they are often living on the edge of survival. In this group are included: Survivors, Besieged

2.3.4.1 Leading edge customers

Proactives

They are market focused companies, technology-oriented, risk-accepting with quite high price sensitivity. They can be considered as leaders in each business sector. They usually plan for a longer period and they centralize their decision making. Moreover, they maintain well their cash position. In general, proactives tend to have higher energy needs as to manage energy use, have flexible billing arrangements, tariff stability and backup generation capabilities.

Innovators

Innovators accept risk and they pursue to attract more market share through orientation on new product and technological leadership. Innovators generally decentralize their decision. Energy needs seem to them less important than their strategy and operations consideration; however they prefer continuous power.

2.3.4.2 Solid implementors

Conservatives

Their business is very conservative and they avoid risk. They prefer service with good quality, the role of price is definitely not decisive. They favour service with a personal touch rather than technology. Decision making is decentralized. They want continuous power, stable tariffs, equipment efficiency and supportive utility relationship. They are not interested in backup generation and customer service.

Self reliant

Self reliant do not show large interest in energy issues. They maintain financial stability and rely on the quality of the existing products. Self-reliant do not stress the importance to expand their product portfolio. New technologies do not represent important value for them. The need is to control of the costs by decentralized units. The energy need of this customer is minimal as they rely on their strategy and operational needs.

2.3.4.3 Slow changing

Dependents

Dependents resemble of the average customer taking from the point of view needs; however they have relatively strong energy needs. These companies depend on their energy providers. Dependents are relatively risk averse and more successful than others. They require continuous power, supportive utility relationship and backup generation. They are interested in a wide range of energy efficiency programs.

Status Quos

These customers do the same things as they have always done. They have a little need to develop new products and to control their costs. Otherwise they are the average in comparison with others in terms of needs.

Utilitarians

The basis of their strategy is to provide all the demanded products/services for all customers. They compete on superior service, low price and product innovation. They trust in long-range planning; energy efficiency is crucial for them, while energy functions bears little importance.

2.3.4.4 Troubled companies

Survivors

Survivors focus on the short term as they concentrate mainly on improvement of the financial performance. They need to be competitive on price and to be innovative in products. They want to be provided with superior service with lower price than average in order to improve their cash position and use energy-saving technology to improve their operations. They require rate stability, customized service and flexible billing.

Besieged

Besieged customers need to improve their cash position, mainly in comparison with other customers groups. They pay attention to the service and cost control. Their energy need lies quite low, much below the average. The owner typically makes all the decision.

2.3.4.5 Results

The lower tables depict the results of the survey and comparison of results with the ERPI study. As it was hypothesized, the Czech and American market show significant similarities and the segmentation could be used in the same model on both of them.

The main rationale for comparison of both markets was comparison of the market structure. As it is seen in the figure 17, the isolated nine profiles tend to answer in a specific way to the key questions. For example to the statement “We have a strong need for continuous power and we desire to minimize the number of outage.” only innovators and dependents should respond “strongly agree” in order to match their character, the rest of the segments should answer differently. Moreover, the ERPI study showed the percentage representation of each group, for example innovators make 8% and dependents 13%. By this logic, it can easily be calculated that 21% of respondents should answer “strongly agree”. Thus, I calculated the probability distribution of answers (knowing character of profiles and their distribution) in the U.S. market and compared it with the data obtained by my own survey. It is important to point out that this analysis must be done separately for commercial and industrial customers, since they represent different percentage, although they show the same character (=same predicted answers.)

The best comparison of the U.S. and Czech market is shown in the following box plot diagrams. This visual comparison allow easily to observe the distribution (minimum, 1st quartile, median, 3rd quartile, maximum)⁷⁸ of the U.S. and Czech customers. Clearly apparent, the shapes and values have very similar character and values. Most of the statistical variables even demonstrated the same values. To sum up, the hypothesis of the very similarity of segmentation by ERPI study (U.S.A.) and this thesis (Czech Republic) can be accepted.

Czech Commercial Customers: Box Plot

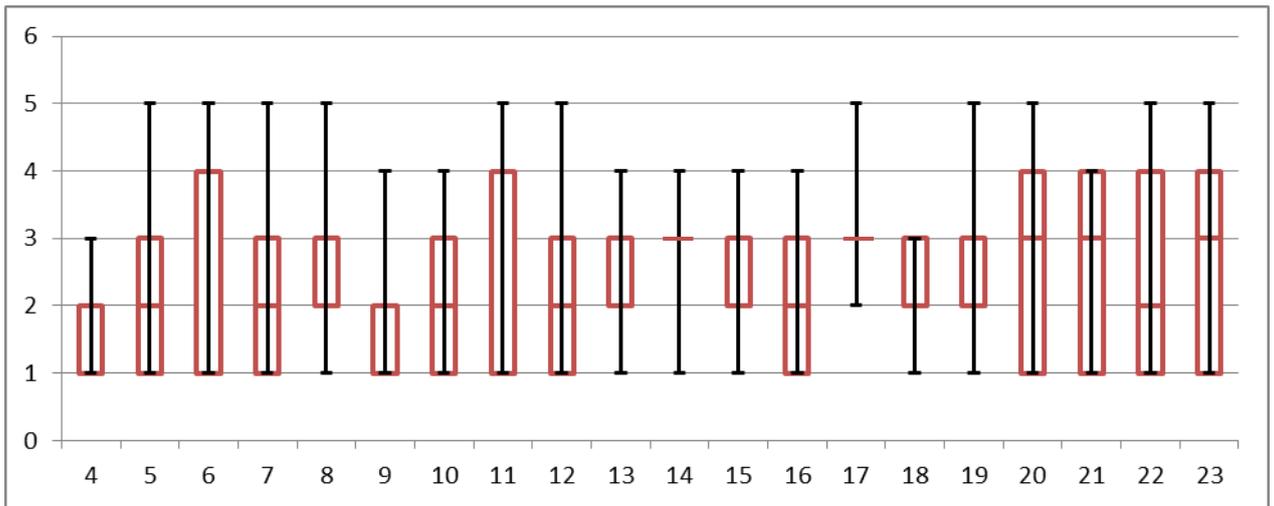


Figure 18: Box plot depicting statistical results – Czech Commercial Customers

U.S. Commercial Customers: Box Plot

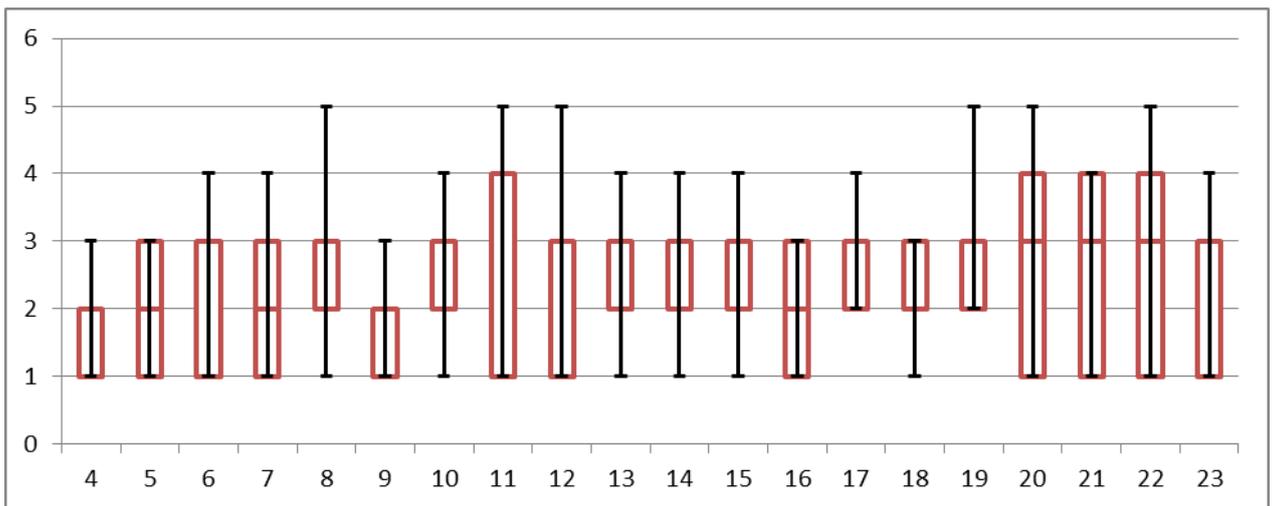


Figure 19: Box plot depicting statistical results – U.S. Commercial Customers

⁷⁸ Naturally, the character of questionnaire (five discrete choices) allows only limited space for comparison.

Czech Industrial Customers: Box Plot

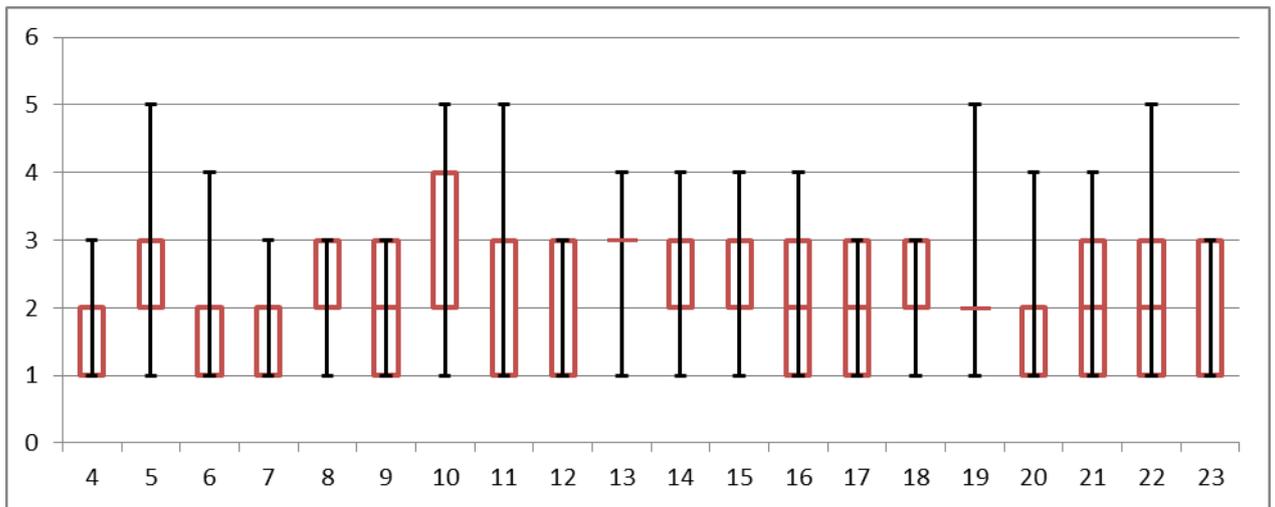


Figure 20: Box plot depicting statistical results – Czech Industrial Customers

U.S. Industrial Customers: Box Plot

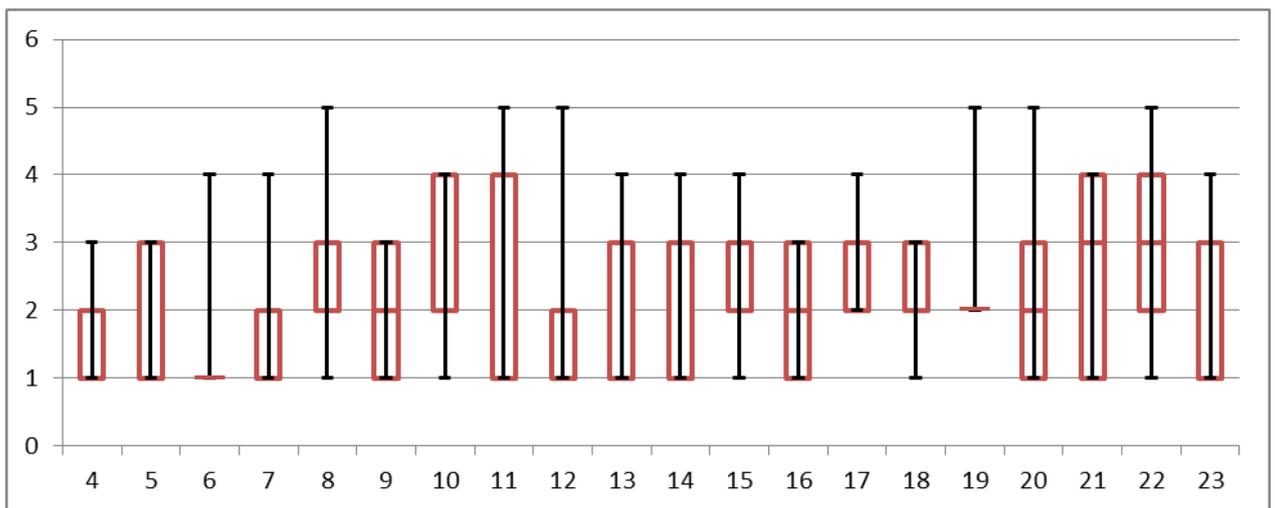


Figure 21: Box plot depicting statistical results – Czech Commercial Customers

Note:

- Explanation: 1 = Strongly agree, 2 = agree, 3 = no opinion, 4 = disagree, 5 = strongly disagree
- The black line connects the minimum and the maximum (=span of the answers). The red rectangles depict quartiles: the most upper = 3rd quartile, the middle = median (2nd quartile), the lowest = 1st quartile. Some lines are missing due to the same value of some quartiles. (In the extreme case it can be just one line depicting all three quartiles.)
- The data for Czech market are obtained from the questionnaire. The data for U.S. market are calculated according to the predicted answers and weights of each segment.

The tables bellow shows the key statistical numerical values for the survey (quartiles and mode).⁷⁹

| Question | SA | A | N | D | SD | Median | Mode | 1st quartile | 3rd quartile |
|----------|-------|-------|-------|-------|-------|--------|-------|--------------|--------------|
| 2 | N/A | N/A | N/A | N/A | N/A | „<50“ | „<50“ | „<50“ | „<250“ |
| 4 | 36,8% | 53,8% | 9,4% | 0,0% | 0,0% | A | A | SA | A |
| 5 | 37,8% | 28,0% | 30,2% | 0,0% | 4,0% | A | SA | SA | N |
| 6 | 51,8% | 5,0% | 10,6% | 24,4% | 8,2% | SA | SA | SA | D |
| 7 | 47,4% | 8,1% | 35,8% | 0,0% | 8,7% | A | SA | SA | N |
| 8 | 17,6% | 31,8% | 33,2% | 10,4% | 7,0% | N | N | A | N |
| 9 | 65,1% | 22,0% | 6,8% | 6,1% | 0,0% | SA | SA | SA | A |
| 10 | 30,2% | 36,2% | 23,2% | 10,4% | 0,0% | A | A | SA | N |
| 11 | 54,5% | 0,0% | 4,0% | 31,6% | 17,9% | SA | SA | SA | D |
| 12 | 48,2% | 15,3% | 20,3% | 0,0% | 16,2% | A | SA | SA | N |
| 13 | 18,3% | 30,1% | 31,9% | 19,7% | 0,0% | N | N | A | N |
| 14 | 9,2% | 4,1% | 71,5% | 15,2% | 0,0% | N | N | N | N |
| 15 | 18,1% | 29,1% | 36,2% | 16,6% | 0,0% | N | N | A | N |
| 16 | 29,1% | 33,2% | 28,4% | 9,3% | 0,0% | A | A | SA | N |
| 17 | 0,0% | 24,6% | 53,5% | 13,6% | 8,3% | N | N | N | N |
| 18 | 14,0% | 36,6% | 49,4% | 0,0% | 0,0% | A | N | A | N |
| 19 | 1,2% | 61,2% | 19,5% | 12,9% | 5,2% | A | A | A | N |
| 20 | 35,4% | 8,2% | 23,5% | 17,9% | 15,0% | N | SA | SA | D |
| 21 | 30,7% | 10,9% | 20,8% | 37,6% | 0,0% | N | SA | SA | D |
| 22 | 32,4% | 27,3% | 11,7% | 9,4% | 19,2% | A | SA | SA | D |
| 23 | 27,9% | 4,0% | 42,1% | 21,4% | 4,6% | N | N | SA | D |

Figure 22: Results from the Czech commercial market

| Question | SA | A | N | D | SD | Median | Mode | 1st quartile | 3rd quartile |
|----------|-------|-------|-------|-------|------|--------|-------|--------------|--------------|
| 2 | N/A | N/A | N/A | N/A | N/A | „<50“ | „<50“ | „<50“ | „<250“ |
| 4 | 40,0% | 36,8% | 23,2% | 0,0% | 0,0% | A | SA | SA | A |
| 5 | 17,5% | 22,9% | 55,6% | 0,0% | 4,0% | N | N | A | N |
| 6 | 70,3% | 10,3% | 2,0% | 17,4% | 0,0% | SA | SA | SA | A |
| 7 | 62,8% | 25,6% | 11,6% | 0,0% | 0,0% | SA | SA | SA | A |
| 8 | 22,0% | 42,4% | 35,6% | 0,0% | 0,0% | A | A | A | N |
| 9 | 36,6% | 22,2% | 41,2% | 0,0% | 0,0% | A | N | SA | N |
| 10 | 11,8% | 42,2% | 2,7% | 35,3% | 8,0% | A | A | A | D |
| 11 | 58,3% | 8,0% | 10,4% | 14,2% | 9,1% | SA | SA | SA | N |
| 12 | 63,6% | 10,6% | 25,8% | 0,0% | 0,0% | SA | SA | SA | N |
| 13 | 20,9% | 1,0% | 65,9% | 12,2% | 0,0% | N | N | N | N |
| 14 | 22,1% | 3,2% | 70,2% | 4,5% | 0,0% | N | N | A | N |
| 15 | 14,6% | 31,3% | 46,5% | 7,6% | 0,0% | N | N | A | N |

⁷⁹ Note: Questions 1 and 3 are omitted. Question 1 only serves to divide customers into commercial or industrial ones and question 3 approves that a customer belongs to the private sector. The statistical data from those responses could not be reasonable, due to their conditional character.

N/A= not applicable

| Question | SA | A | N | D | SD | Median | Mode | 1st quartile | 3rd quartile |
|----------|-------|-------|-------|-------|-------|--------|------|--------------|--------------|
| 16 | 39,9% | 12,1% | 44,4% | 3,6% | 0,0% | A | N | SA | N |
| 17 | 32,6% | 38,7% | 28,7% | 0,0% | 0,0% | A | A | SA | N |
| 18 | 6,0% | 45,0% | 49,0% | 0,0% | 0,0% | A | A | A | N |
| 19 | 5,5% | 73,6% | 3,2% | 5,9% | 11,8% | A | A | A | A |
| 20 | 45,6% | 35,5% | 7,6% | 11,3% | 0,0% | A | A | SA | A |
| 21 | 41,0% | 17,5% | 29,0% | 12,5% | 0,0% | A | A | SA | N |
| 22 | 27,6% | 33,9% | 35,0% | 1,1% | 2,4% | A | N | SA | N |
| 23 | 44,8% | 0,0% | 55,2% | 0,0% | 0,0% | N | N | SA | N |

Figure 23: Results from the Czech industrial market

In addition, when looking at the actual table showing the percentage weight of the profiles, the hypothesis is confirmed also by the final data, since the largest difference found is 6.6% between Czech and U.S. industrial proactives. As expected, the Czech market is composed of larger percentage of survivors and besieged, since the ERPI study was compiled long before the word-wide economic crisis of the 21st century. Note: the data for U.S. market are obtained from ERPI study and the data for the Czech market are calculated according to the survey.

| | Commercial | | Industrial | |
|----------------------|------------|-------|------------|-------|
| | Czech | U.S. | Czech | U.S. |
| Proactives | 11,4% | 13,0% | 22,4% | 29,0% |
| Innovators | 12,0% | 8,0% | 15,9% | 19,0% |
| Conservatives | 4,5% | 9,0% | 10,1% | 5,0% |
| Self-Reliants | 16,3% | 13,0% | 7,8% | 5,0% |
| Dependents | 14,0% | 13,0% | 7,9% | 5,0% |
| Utilitarians | 8,0% | 11,0% | 6,8% | 12,0% |
| Status Quos | 11,0% | 14,0% | 8,3% | 3,0% |
| Survivors | 13,0% | 10,0% | 14,4% | 11,0% |
| Besieged | 9,8% | 10,0% | 6,4% | 3,0% |

Figure 24: Segment structure of Czech and U.S. market

2.4 Managerial implication

The previous part showed the method how an electricity utility can arrive from the chaotic aggregate of customers to segmented portfolio of clients. However, any segmentation technique would be incomplete, if there was not follow-up regarding the business implication. Thus, the next part of the thesis deals with these management consequences.

Let's suppose that a customer has already been evaluated and the structure and percentage weight of his profile is therefore uncovered. That is exactly the point when the work for product manager starts: What is the best product for him/her? Which way does he/she receive

information? What features are the most important in his/her choice? Does he respond positively to novelties or rather defensively negative?

Simply said, marketing department need to know three main elements:

- 1) Behaviour characteristics – the key attributes that describe the customer’s behaviour in business.
- 2) Suitable product – Every customer responds to different benefits and features of a product. Quality can represent an essential value for one person, while another person can see that as a completely useless thing. Hence, each customer must be offered a different product that meets his/her needs and requirements. In some case, the same product could meet the needs of more customer groups; however, the main communicated benefits must be different.
- 3) Sales process – Not only the product itself, but also the sales process differs from one to another customer group. Customer groups react in a dissimilar way to marketing/sales communication. This point encompasses not only sales channels, but much more as efficient contact persons, after-sales care, negotiation process, information sources, killer arguments and more. By knowing this, a utility provider can target their customers in the most efficient and effective way to acquire and retain customers.

All three sections are introduced in each of the nine customer groups. The primary data were received from my own research through interview. The secondary data used in the following part were taken from case study as well as from the competitor web pages and marketing materials as inspiration for CEZ Group.

2.5 Proactives

Behaviour characteristics

- Aggressively managed;
- Market focused;
- Price-sensitive;
- Risk-accepting.

Suitable product

- Consultancy service – Proactives are generally very open to improvements and advice, even coming from outside. Thus, proactives are the best targets for workshops and seminars offered by energy supplier. An example can be given by

PG&E Academy that offers very wide range of educational programme for their business customers from “Basic Electricity” to “Advanced Corrosion”.⁸⁰

- Price premium – Proactives do not seek for the lowest price, since it may compromise their striving for best quality and production of always the best. However, they constantly evaluate their price/performance ratio and do not hesitate to exit disadvantageous relationship for them.
- Freedom of price selection – Dominant character of proactives prevents them from just accepting “one rate”. Proactives take their freedom of running their business in the broadest sense and select the best rate for them. In other words, proactives are interested in multiple-rate products such as energy exchange-bound or with individual energy planning. Very good inspiration is provided by the AGL Freedom Energy Plan. This product does not limit customer in one selected rate and also gives an easy option for premature exit.⁸¹
- Accent on clean energy – Proactives judge the source of their energy. In this way, the supplier of energy should provide clean energy, coming in the best possible quality. Generally, today’s market offers many eco-friendly choices, from simple “eco” surcharges (PREKO from PRE)⁸², over whole products (EkoStandardPower from E.ON)⁸³ to entire green electricity suppliers (Nano Energies)⁸⁴.
- New technologies – Proactives seek for the cutting-edge technologies and energy-efficiency programmes. Innovative, new and up-to-date represents the extra added value for proactives.⁸⁵ An interesting inspiration could be Business Welt Online from RWE that gives companies opportunity access their customer account, events calendar electricity news and terminology dictionary, everything exclusively online.⁸⁶

⁸⁰ PG&E [online]. [accessed 2011-07-22]. PG&E Academy. Available from WWW <<http://www.pge.com/mybusiness/customerservice/otherrequests/trainingclasses>>.

⁸¹ AGL Energy [online]. [accessed 2011-07-22]. AGL Freedom Energy Plan. Available from WWW <<http://www.agl.com.au/business/business-energy-plans/Pages/AGL-Freedom-Energy-Plan.aspx>>

⁸² PRE [online]. [accessed 2011-07-22]. PREKO. Available from WWW <http://www.pre.cz/podnikatele/produkty-aceny/preko.html>

⁸³ E.ON [online]. [accessed 2011-07-22]. Produktová řada EkoStandardPower. Available from WWW http://www.eon.cz/cs/companies/power_products/ekostandardpower.shtml

⁸⁴ Nano Energies [online]. [accessed 2011-07-22]. Připojte se k zelené energii a ušetřete za elektřinu. Available from WWW <<http://www.nano-energies.cz>>

⁸⁵ For example see study published by the Pacific Gas and Electric Company under the auspices of the California Public Utility Commission, available at <<http://www.eebestpractices.com>>.

⁸⁶ RWE [online]. [accessed 2011-07-22]. RWE Business Welt Online. Available from WWW <<https://www.rwe.de/web/cms/de/122996/rwe/angebote-services/geschaeftskunden/rwe-business-welt-online>>

Sales process

- Reaching for the board – Proactives are characterized that management of the company is strongly top-down driven with most ideas and instructions coming from the top management. Thus, sales representatives must be in contact with the highest level to deal with the real decision makers.
- Let proactives be dominant – The nature of proactives tend to be rather dominant. Thus sales representatives must be especially flexible, information-providing, empathic, businesslike and concise.
- Extraordinary service – With the accent of proactives on superior quality, proactives require the same from their suppliers. Thus, a utility company should provide the best service to them: perfect account management, maximal accessibility, multi-channel, full cost-control, tailored products etc.

Representation in the Czech Republic

- Commercial: 11,4%
- Industrial: 22,4%

2.6 Innovators

Behaviour characteristics

- Risk-friendly;
- Technological leadership;
- Product-development oriented;
- Quality lead.

Suitable product

- Electricity taken for granted – Innovators relatively do not care about energy supplies, as long as it is delivered with the best quality. Although innovators stress in-house creativity, they do not yearn for much innovation from the “basic” product as electricity. A promising future way towards this need can be seen in the RWE’s product “RWE Klassik” (although for the time being only for residential customers), which offers reliable and non-stop electricity with no extra worries or unnecessary interaction. The main motto of the products runs: “Sie brauchen sich um nichts zu kümmern.“ (You do not need to worry about anything.)⁸⁷

⁸⁷ RWE. [online]. [accessed 2011-07-23]. RWE Energiekatalog p. 9. Available from WWW <<http://flash.dialog-medien.net/energiekatalog/2011>>.

- Strong link to reliability – Innovators require uninterrupted supplies of electricity and are very sensitive to power outages or quality mismatch. So, the killer argument for innovators is clean and continuous power supply in the long term. A very good and attractive communication scheme regarding this point can be observed at PG&E – outage map, written commitment to reliability, preparation & response, compensation or energy system status.⁸⁸
- Superior, but unobtrusive service – Innovators appreciate perfect service from an electricity company that solves all the problems, communicates well and fulfils customer’s needs. Still, this service should be hidden and invisible, only stepping into when need and not bothering with “special offers” or energy savings plans.

Sales process

- Power of middle management – Companies as innovators tends to accept the voice of the mid and lower management. Moreover, innovators build decentralized structures of business with significant decision power in the lower levels. As an implication, the sales force from the energy industry must begin from the department leaders, facility managers or even engineers, and climb higher with their support.
- Peer review – Surprisingly, innovators look around in their respective sector.⁸⁹ As a consequence, electricity supplier should maintain a very good reputation in the industry. As the word of mouth spreads, the supplier gets more contracts and renown in the industry. A promising incentive programme in this point has been initiated by for example Nano Energies that give special bonuses for recommendation of new potential customers.⁹⁰

Representation in the Czech Republic

- Commercial: 12,0%
- Industrial: 15,9%

2.7 Conservatives

Behaviour characteristics

- Risk-averse;

⁸⁸ PG&E. [online]. [accessed 2011-07-23]. Energy System Status. Available from WWW <<http://www.pge.com/mybusiness/customerservice/energystatus/gridstatus>>.

⁸⁹ MCRAE, M.; BROWN, J. (eds). *CLASSIFY-PROFILES: Volume 2: Commercial and Industrial Customer Needs and Energy Decision Making*. p. 5-5

⁹⁰ Nano Energies. [online]. [accessed 2011-07-23]. Výhodné bonusy. Available from WWW <<http://www.nano-energies.cz/domacnosti/vyhodne-bonusy>>

- Price-insensitive;
- Technologically conservative;
- Importance of relations.

Suitable product

- Stability – Once conservatives find their product, they stick to it. Change in names, terms, price, service is not called for. Even if it may be beneficial for the customer, they do not wish those swings, which undermine the credibility of the supplier.
- Rate stableness – Current electricity industry offers very wide range of rates; it can be dependent on peak/off-peak, day of week, season, energy exchange, consumption, accuracy of planning and many others. Conservatives do not appreciate this innovativeness, but simplicity and stability. So, the product for conservatives should not be complicated with changing rates, but rather a solid and stable rate mechanism, usually simple charge for a unit of energy. The simplest but probably the most effective offer for conservatives presents one fixed rate for the whole term, such as for example “AKTIV + PÁSMA 2011” by RWE.⁹¹
- Price insensitiveness – Conservatives not only wish changes in rates and their main decision argument is definitely not the price itself. Thus, unlike other customers, conservatives do not prefer low electricity bill to other benefits.
- Quality delivered – In general, conservatives have a high standard. The electricity supplies must meet high reliability and quality, provided service should be according to their needs and foremost, the supplier should adapt after the conservative, definitely not vice versa.

Sales process

- Importance of personal relations – Conservatives favour stable and time-tested relationships. Thus, once a relationship is created, the responsible account manager should stay as long as possible with the same customer. When changed, customers perceive new person as a complete turn-over and it can lead even to a break-up of the contract.⁹²
- No push for innovations – Energy audit, consumption advisory, device thermovision and many other activities are offered to customers from energy companies. It would be mostly contra productive, if those services were pushed by

⁹¹ PRE. [online]. [accessed 2011-07-24]. AKTIV+ PÁSMA 2011 | AKTIV+. Available from WWW <<http://www.pre.cz/pasma2011.html>>

⁹² A noteworthy way is presented by German RWE that stresses their “non-core” activities supporting long-term relationships: RWE card, magazine, customer council, sponsorship, merchandising, children sport support, newsletter and other.

energy company representative to conservatives, since they simply do not yearn for unnecessary changes and especially new and unproven technologies.

- COO first – Generally, chief operation officer plays the most important role in the decision process about electricity supplies,⁹³ and his vote cannot be beaten.
- Customer portfolio care – Once a customer is acquired, it hardly changes for any reason and they can be seen as a “golden goose”, which does not desert to other supplier for savings or better service. Generally conservatives prefer trust and commitment to total satisfaction.⁹⁴ In other words, conservative customers easily overlook flaws, but highly value personal relationship and long-term stability. In extreme case, when a conservative client is lost, finding a new one might be very costly and time-consuming.

Representation in the Czech Republic

- Commercial: 4,5%
- Industrial: 10,1%

2.8 Self-Reliants

Behaviour characteristics

- Full faith in existing products;
- Superior quality and service;
- Reluctance to expansion.

Suitable product

- Low expectation and need – In general, self-reliants expect very little from utilities regarding both quality and service. Not only self-reliants simply overlook even large flaws in product quality (outages, voltage fluctuation etc.), but they also do not expect any improvement of their cash position by electricity producer. Premium services such as energy consultancy, customized service or back-up generation are definitely unwanted and unneeded. Thus, the basic energy product with elementary quality match suffices completely to self-reliants. This minimalistic solution can be seen e. g. in the CEZ’s product line “Basic”.⁹⁵

⁹³ MCRAE, M.; BROWN, J. (eds). *CLASSIFY-PROFILES: Volume 2: Commercial and Industrial Customer Needs and Energy Decision Making*. p. 6-1.

⁹⁴ GARBARINO, Ellen; JOHNSON, Mark S. The Different Roles of Satisfaction, Trust and Commitment in Customer Relations.

⁹⁵ CEZ. [online]. [accessed 2011-07-24]. Available from WWW <<http://www.cez.cz/cs/pro-zakazniky/elektrina/ceny/domacnost/basic.html>>

- Price indifference – Self-Reliants usually hold a strong cash position, therefore they do not express the need to decrease their costs. So, the decision process is definitely not exclusively based on price judgement (in addition with low energy consumption – see the next bullet point.)
- Low energy consumption – Usually, self-reliants spend relatively little amount on electricity or energy in general. Commercial customers mainly use electric power for air-conditioning and lighting, while industrial clients do not consume large quantities either (less than 10% of operating costs).⁹⁶ Thus, the offered product must mirror this low need and only supply basics. Marketing of energy savings programmes, bonuses for larger consumption or sophisticated pricing schemes would not meet any success in this customer group.
- Quality indifference – Usually, self-reliants are not very sensitive to power outages or quality fluctuations, since firstly they do not consume much energy or rely their operation on it and secondly, they do not care for energy issues at all.

Sales process

- Lack of concern for energy-related issues – Simply said, self-reliants do not care much for energy, they just rely on themselves and receive what is given. Due to their low consumption, energy topic merely does not interest them at all and especially any technological novelties and energy savings are completely ignored by them.
- Internal and senior decide – Generally, self-reliants have full confidence in their in-house experts and their opinion, external consultants and energy advisors are not seen as a reliable source of information. Furthermore, decision body consists mainly from senior managers who bear the responsibility.

Representation in the Czech Republic

- Commercial: 16,3%
- Industrial: 7,8%

2.9 Dependents

Behaviour characteristics

- Mass market;
- Average;

⁹⁶ MCRAE, M.; BROWN, J. (eds). *CLASSIFY-PROFILES: Volume 2: Commercial and Industrial Customer Needs and Energy Decision Making*. p. 6-4.

- Price competitive;
- Service oriented.

Suitable product

- Energy for all needs – Average does not mean unified. In other words, mass market shows various demands and uses for electricity. Different volume, different time regime, different use curve – all this diverse needs must be met in one universal product, which is not exclusively oriented, but rather multi-purpose. An inspiration for clear navigation and various needs can be given by Southern California Edison that starts their offer not with products themselves, but with easy, intuitive and attractive four-step energy solution: (1) Sector selection; (2) Learn about energy savings; (3) Prepare for implementation; (4) Act.⁹⁷
- Stable supplies – As the name of the group implies, these customers are merely strongly dependent on the utilities, since it belongs to the critical factors of their business. Thus, the offered product must meet the highest protection against power outages, which cause substantial harm to both commercial and industrial customers. Appropriate product inspiration can be given by E.ON BackupPower.⁹⁸
- Simple price scheme – Dependents avoid taking more risks than needed. Complicated pricing with input variables could warn off customers, since fluctuations of electricity price (even if beneficial for them) is simply not wanted by risk-averse clients. This does not mean that the best scheme must be single-tariff. A well explained and easy-to-understand multi-tariff would work quite well, but must have fixed prices.
- Interest in energy savings and cogeneration – Surprisingly, dependants are open to various programmes which help them decrease their energy costs.⁹⁹ Offers should contain this opportunity, however always fully optional, that attract customers with the simplest thing – saving cash. On the other hand, this offer could not be against usually conservative character of dependents. An appealing programme can be

⁹⁷ Southern California Edison. [online]. [accessed 2011-07-25]. Available from WWW <<http://www.sce.com/business/ems/default.htm>>.

⁹⁸ E.ON. [online]. [accessed 2011-07-25]. *Solar: Schattenkraftwerke und BackupPower*. Available from WWW <https://www.eon.de/de/eonde/gk/produkteUndPreise/Strom_GK/Industriekunden/Stromprodukte/E.ON_BackupPower>.

⁹⁹ MCRAE, M.; BROWN, J. (eds). *CLASSIFY-PROFILES: Volume 2: Commercial and Industrial Customer Needs and Energy Decision Making*. p. 7-1.

found at PG&E that gives various cash rebates for energy-efficient installation¹⁰⁰ (e.g. 0,15 USD price discount for every square foot of roof isolation)¹⁰¹.

Sales process

- Average strategy – Generally, dependents mirror the mainstream utility customer. This mass market characteristic has been simply used by most utilities, due to relative unified products – energy. The easiest way is to maintain the current mediocre marketing strategy with usual channels.
- Flexible sales force –As said before, dependents consists of various customers who prefer different handling of their needs. Some want to socially discuss their needs facing sales representative, some prefer thorough analysis and selection in the e-shop, some want a quick and expert advisory in a physical branch.
- Security of supplies as killer argument – Strong dependency on electricity makes dependents very vulnerable to black outs. As a result, the main point to be communicated is stableness, long-run and security of energy supplies. Naturally, customers prefer low price, first-rate service or high quality, but safety for their electric power decides far mostly on the first spot.

Representation in the Czech Republic

- Commercial: 14,0%
- Industrial: 7,9%

2.10 Status Quos

Behaviour characteristics

- Average;
- Flaws in cash flow;
- Little product development;
- Low-quality service.

Suitable product

- Oriented on low energy consumption – Generally, commercial and industrial customers have merely lower energy needs. This customer group pays small energy bill, which accounts for lighting, air-conditioning and IT.

¹⁰⁰ PG&E. [online]. [accessed 2011-07-25]. *Rebates, Incentives and Resources*. Available from WWW <<http://www.pge.com/mybusiness/energysavingsrebates/rebatesincentives>>.

¹⁰¹ Appliances and General Improvements Rebate Catalogue, p. 2. Available from WWW <http://www.pge.com/includes/docs/pdfs/mybusiness/energysavingsrebates/incentivesbyindustry/appliances_generalimprovements_catalog_final.pdf>

- Low sensitivity to quality/outages – Due to the low consumed electricity volume, status quos are not very much concerned with quality fluctuations or power black-outs. Electric-powered operations are not critical to them and can be easily overcome for a shorter time.
- Gas importance – Noteworthy, status quos use heavily gas for their energy needs. Industrial customers report more than 60 % of their energy use in gas.¹⁰² This creates an opportunity for “double” product of both gas and electricity.
- Price important, but always at slow lane – Status quos do not belong to the largest and most profitable businesses in the economy. Therefore, they always appreciate lower rate from a utility provider. In no way are they interested in power savings, technological novelties, cogeneration or flexible billing. All in all, they simply do not care much for extra service and innovations, except price lowering. But in any case, the best offered product from unknown provider cannot overcome the stable and content relationship, which plays the first importance for status quos.

Sales process

- Conservatism – Status quos do not like to change very much. Usually, they tend to be in the business for the long time with established business relationships. Thus, once they accept an electricity supplier, they do not change for a small reason. Conservative customers generally accept mistakes or higher price, and do not run over to another supplier for better conditions.
- Senior initiates, junior executes – As a rule of thumb, senior executives initiate any important decisions or changes, whereas their subordinates carry out the details and execute as the whole. As a consequence, the primary targets of sales need to be senior executives who possess the decision power. After they are taken on the board, the focus should shift towards their subordinates that work out the rest and are worth being in close contact, too.

Representation in the Czech Republic

- Commercial: 11,0%
- Industrial: 8,3%

¹⁰² MCRAE, M.; BROWN, J. (eds). *CLASSIFY-PROFILES: Volume 2: Commercial and Industrial Customer Needs and Energy Decision Making*. p. 7-5

2.11 Utilitarians

Behaviour characteristics

- Various strategies;
- Business drive;
- Customer-oriented;
- Innovative.

Suitable product

- Designed for miscellaneous needs – Utilitarians declare a simple strategy: to go whatever their customer wants and keeps them in the business. Hence, it is extremely complicated to design one or a few products that would match their needs. Some compete on price, some on superior service, some on market niche, some on mass market and all these strategies require different attitude from utilities. It is a question whether to melt this customer group among remaining or create a multi-purpose and universal product for utilitarians. At present, most utility companies offer wide range of rates – single-tariff, double-tariff, special rate, energy exchange-dependent etc., which can meet various needs of utilitarians.
- Long-term view – Without any doubt, utilitarians plan in the long-range in comparison the rest of companies. So, the right product must meet the need for planning easiness and forecast ability. This does not necessarily mean fixed rates, but a match for company's analysts. Some companies might want a double-rate, some dependent on external factors; some completely fixed one, but always the best one for their planning. Most likely, utilitarians would appreciate the offer from 3E, which guarantees a price cap for five years.¹⁰³
- Low energy consumption – Utilitarians have tendency to consumer low energy volumes, for business implication see the multiple examples above.

Sales process

- Problem of discovery – If we look at the characteristics of utilitarian customers, it fairly represents easy-to-apply criteria. Thus, it is quite difficult to isolate utilitarian customers from the rest.
- Flexibility from sales – Even after successful discovery of a utilitarian customer, utility must determine the key needs of customer and choose the right product that matches those needs.

¹⁰³ 3E Europe Easy Energy. [online]. [accessed 2011-07-26]. Available from WWW <http://www.3-e.cz/small_business.html>

- Energy in the background – Utilitarian customers do not put much importance to energy consumption issue, for business implication see the multiple examples above.
- Decision making as innovators – See the innovators profile.

Representation in the Czech Republic

- Commercial: 8,0%
- Industrial: 6,8%

2.12 Survivors

Behaviour characteristics

- Poor financial performance
- Price competition
- Innovative
- Low-quality

Suitable product

- Cost-driven – Survivors compete mainly on price and they pass this financial pressure to their suppliers to obtain the lowest possible price. Hence, the price criterion decides whether to adopt or abandon. However, survivors are open even for increased costs in one area, if it saves them money in the end. An inspiration can be given by CEZ with their whole section “Chci ušetřit” (I want to save), which thoroughly shows diverse ways how to save money regarding electricity consumption.¹⁰⁴
- Low initial investment – Although survivors are generally open to new ideas, in this case energy savings programmes and electric-related novelties, they do not have large financial sums at their disposal. Since their credit rating prevents them from obtaining initial investment funds, they must seek other ways. For utilities offering energy savings programmes it implies that customers must automatically offered additional product which decreases the initial financial burden – lease, credit, prolonged maturity, rental etc.
- Energy saving in the foreground – As previously said, survivors do expect energy savings proposals from electricity providers, since it decrease their overall costs. Thus, one of the first offers towards survivors must be energy consumption

¹⁰⁴ CEZ. [online]. [accessed 2011-07-27]. Chci ušetřit. Available from WWW <<http://www.cez.cz/cs/pro-zakazniky/chci-usetrit.html>>

decreasing programme with clearly communicated financial benefit. PRE offers interesting complementary services in this field – thermo vision, power factor, quality audit, partnership in installation¹⁰⁵, or the Centre for Energy Advisory¹⁰⁶.

- Rate stability – Due to the rather tight cash flow, survivors cannot afford unexpected expenditures. Therefore, they highly appreciate rate stability which calms them down from sudden financial distress. Fixed rates (no matter if one or more) help them in financial planning and forecasting. An appropriate example how to handle this issue is given by ScottishPower that can fix the electricity price for up to three years.¹⁰⁷
- High energy bill – Survivors consume larger quantities of electricity in comparison with others, mainly for heating/cooking (commercial customers) or energy-intensive operations (industrial customers). As a consequence, every per cent rate decrease makes a significant difference to their bottom line.

Sales process

- Price decides – Survivors decide almost exclusively on the price. So, the sales must be immediately ready to be competitive in this field. Any other benefits cannot outweigh the finance itself.
- Regular contact – Survivors desire a regular contact from utilities, which help them to sort out their energy needs, keep them informed and foremost provide them with a “feeling” of concern. Thus, energy-company representative must pay regular visits and contact to prevent them from fleeing to the lower rate offer.
- Open for various information sources – Survivors are not narrow-minded in obtaining advice how to improve their business and operations. Thus, generally speaking, survivors do not mind receiving recommendations from utilities and attend their workshop or seminars.
- Financial monitoring – As spoken before, survivors can easily run into financial distress. Therefore, close and thorough (but discreet) financial monitoring should be an indivisible part of after-sales services towards survivors, so that they do not run into bad debts category.

¹⁰⁵ PRE. [online]. [accessed 2011-07-27]. Partnerský program. Available from WWW <<http://www.pre.cz/velkoodberatele/produkty/servis/partnersky-program.html>>

¹⁰⁶ PRE. [online]. [accessed 2011-07-27]. Energetický poradce PRE. Available from WWW <<http://www.energetickyporadce.cz>>.

¹⁰⁷ ScottishPower. [online]. [accessed 2011-07-27]. *Fix your energy prices*. Available from WWW <<http://www.scottishpower.co.uk/your-business/small-business/fix-your-energy-prices.aspx>>

Representation in the Czech Republic

- Commercial: 13,0%
- Industrial: 14,4%

2.13 Besieged

Behaviour characteristics

- In crisis;
- Short-term focus;
- Low free cash flow;
- Priority of obtaining cash.

Generally, it can be asserted that besieged can be described with the same attributes as survivors. Also, the suitable product and sales process converge in various ways. Nonetheless, there are some differences to be found, which are described below.

Suitable product

- Importance of payment conditions – Rather than product itself, besieged are extremely interested in the accompanying conditions which help them overcome temporary financial distress. In other words, even the best price cannot attract besieged, if the invoice maturity puts a lot of pressure or if a collateral is needed. Thus, utilities should focus on the adjustment of conditions for besieged in order to keep them financially viable.
- Low energy needs – Universally speaking, besieged consume low volume of energy and they try to cut down on this consumption to save additional funds. However, they are not in the position to invest in energy-saving-related improvements.

Sales process

- Potential of besieged – Common mistake would be to ignore besieged, since they cannot spend large expenditures at the moment. Definitely besieged customers still pay (at least some part of) their bills and moreover, they present a future potential when (or if) they overcome the current problems. One of the very few utilities that actually present an offer for troubled customers is E.ON with a low-cost product and secured supplies.¹⁰⁸
- Advance care from utility representative – Definitely, troubled customers would not appreciate impersonal and official warning letters and notices from utilities. Vice

¹⁰⁸ E.ON. [online]. [accessed 2011-07-30]. *Strom- und Erdgasversorgung für TelDaFax-Kunden sichergestellt*. Available from WWW <<https://www.eon.de/de/eonde/pk/services/TelDaFax/index.htm>>

versa, utility representative should be seen as partner to surmount the distress. This attitude helps the utility to be in the closest contact with up-to-date state of the customer, urge paying their bills and create the faith base to the future.

- Simple decision structure – Besieged customers tend to be rather small in size, therefore their management structure is neither extensive nor complicated. Usually, the owner or CEO decides in even small matters.

Representation in the Czech Republic

- Commercial: 9,8%
- Industrial: 6,4%

2.14 Summary of recommendations for CEZ Group

As discovered, the segmentation used by CEZ Group, which presents the representative of the B2B energy supplier on Czech market, is quite simple and not advanced. According to information that I could gain during the interview, the customers are divided mainly according criteria as their size and energy consumption. All in all, any special purpose method or sophisticated tool was not prepared by company.

My new tool offers CEZ Group a new perspective. Thanks to the questionnaire that was created for the needs of sales managers, they can segment their current customers, satisfy their needs and they can target them with the customized offer. In comparison with the standard segmentation, this tool offers already proven results with the research behind that I developed in my thesis. The assumption of similarity of Czech and American energy B2B market was approved, so my new method together with the basis taken from abroad allows CEZ Group to work directly with their clientele.

Which segment should CEZ Group focus on? I would like to give the company recommendation not to be conservative and to decide to have offers for all segments that were defined. All the determined segments are important as each of them have some specifics that suit the specific group of people. In the same time I am sure that CEZ Group has capacity to offer the diverse products, services and this flexibility could enlarge the number of their B2B customers. The sales department of CEZ Group can optimize the structure according the new segmentation and set the offers of new products and services as described for each group of customers. Through the solution offered, CEZ Group can target almost whole market as the segments were differentiated between each other and they cover all types of customers within these differences.

Conclusion

If I should sum up my thesis into one sentence, it would be: "Segmentation methodology of B2B energy market is essential as it enables the company to know better their customers as well as it improves the understanding of the business, but this process must be characterized by appropriate conditions and meet its objectives." Of course, this simplified claim deserves more comprehensive explanation, which will be based on the conclusions of the individual parts of my work.

Energy industry sector shows several signs that describe its unique place among utilities: natural tendency toward monopoly, the need for services provided, capital intensity, difficulty with storage, time variability of product demand and utility structure. So the understanding of the functioning of energy market in Czech Republic represented an important part of my research for the next steps of analysis. In overall the six basic entities are defined that influence the functioning of energy market: 1) generation, 2) transmission, 3) distribution, 4) market operator, 5) electricity trader and 6) customer.

After understanding the energy industry, the importance of the B2B segmentation concept was clarified. This tool emerged when companies realized that they cannot serve all their customers efficiently with one offer as their needs are diverse but they have to divide them into segments that can be served more effectively. The tool for segmentation was developed over long time and the insight into the approach was undergoing a development with regard to historical, industrial and political-economic situation. Trends are ranging from a classical economics theory, which uses the preferences that are exhibited through supply-demand equilibrium as basis for the segmentation, through behavioural economics, technology diffusion, social psychology to sociology that is using the institutional context that formulates the preferences as basis for segmentation. Also the conceptual approach to the segmentation was changing as well.

There were four significant concepts whose influence on segmentation I presented and described: production, product, sales, and marketing concept. There are another two special concepts as target marketing and mass marketing that were described more closely. Target marketing recognizes the significant market segments and then concentrates on them. On the other hand, the mass marketing segmentation approach ignores the differences between customers and considers whole market as one segment.

After getting known the basic concepts of the segmentation, I pursued to investigate the principles of segmenting. The basic characteristics of segments should be defines as: S-specific, M-measurable, A-achievable, R-realistic and T-time-related. In the same time, the segments

should bear the essential criteria that a company delineates and pursues: stability, agility, objectivity and positive link to products or services provided. In generally these criteria can be divided into two groups: casual and matter criteria.

Segmentation as an indicator for a company where to focus their efforts has a standardized process to achieve the desired results on target markets. It can be divided into these stages: Market determination, Identification of crucial criteria, Segment discovery, Development of segment profile, Check of criteria, Evaluation and targeting. As this topic was touched just marginally, I looked into the stage segment discovery where I discovered segment attractiveness and competitive advantage as the essential factors which “segment is worth to segment”.

My main focus of interest lay in the specifics of B2B segmentation where the principle of segmentation is very similar as in the customer market. Generally, B2B marketing is specific by the fact that companies seek to meet the needs of other companies that are derived from the end consumer demand. So why it is important to segments on B2B market? The answer sounds quite easily. If company does not know, which market it serves, what are their customers and needs, it is difficult to exploit the market potential. Thus every company needs to find the replies on several questions connected with market.

B2B segment is constituted from organizations and companies. It is sometimes also called organizational market as it can be segmented on several factors classified into two major categories: macrosegmentation and microsegmentation. Macrosegmentation looks into the criteria as size, industry and geographical location while microsegmentation requires more deep knowledge.

The process of market segmentation in energy industry is basically similar regardless the product, so also of energy. The energy industry has not been a leader in the development of customer segmentation. All in all, energy industry should be considered as rather conservative and underdeveloped regarding customer segmentation.

Even though the fact that market segmentation process can be defined in energy industry, the effective application of segmentation can be challenging. Company can lack of information to define the description of the groups.

Naturally the first step in research of methodology examining the segmentation on B2B market was review of already issued works. In some industries as FMCG, this practice of segmentation has already greatly expanded and it is elaborated in detail. In the field of energy, the studies are

still mostly missing and I found only isolated works and their influence has often focused excessively statistically.

The portfolio of papers from Electric Power Research Institute (EPRI) can be regarded as the most important contribution to the topic of B2B energy segmentation. This institute published numerous publicly available studies in the field of electricity management. My research found two models that are used in the energy sector. The former one has been published by the Institute for Energy Engineering, Polytechnic in University of Valencia. The second used stems from a customer research conducted by formerly mentioned Electric Power Research Institute.

The first model uses three-level top-down segmentation, which divides customer portfolio from the whole to the pieces. It quintessentially ignores the customer needs and focuses on the technical use of the utilities product – energy.

The second model took a stand of bottom-up and strived to see “the world through customers’ eyes”. The result of the study was 22 primary needs that mostly influence the decision of a customer for an (energy) product. Subsequently, customers were divided into archetypes, thus segmented into easy-to-comprehend classes. Customers of utility companies stress 22 drivers that can be divided into three categories – business strategy needs, business operations needs and energy operations needs. These 22 needs were thoroughly analysed and clustered, in order to get meaningful customer categories. In addition, customer profiles were added to the data set and the whole process resulted in nine customer segments, divided into four groups: (1) leading edge customers, (2) solid implementor customers, (3) slow changing customers and (4) troubled customer.

However, the described requirements on the assumptions and objectives of the segmentation would be an empty theory, if these findings could not be applied in practice. In case of this thesis the application is reflected in the new methodology model measuring and evaluating the profiles of customers and dividing them into the segment.

I based my practical part on the inspiration taken from the first theoretical part. Firstly I looked into the dominant energy company on the Czech market – CEZ Group. Observing the structure of the business and segmentation methodology there, I found out the following variables existing: company size mixed with energy consumption. The following segments were described: consumer, business and public sector. Generalization of this section was highlighted in the practical approach to energy in the Czech Republic where I confirmed the approach of CEZ Group Company by adding other currently used variables as pricing and billing method

including tariffs, time zones, consumption diagram, industry, conditions of the contract and technical parameters and services. To evaluate the current segmentation model in the Czech Republic, some advantages as well as opportunities in the current approach broadly exist. The actual criteria describe the most important features for customers in energy industry. However the actual approach to segmentation is not very structured and the evaluation of these variables can be hardly delivered.

As nowadays not many segmentation methodologies exist in energy sector that would be broadly used on the Czech market and companies are not still sure how to measure the efficiency and quality of it, I came out with the methodology partly solving these challenges of the energy industry.

The aim of the practical part was to take learning from the interviews with the representatives of the energy company CEZ Group as well as case studies already tested abroad and try to define the better approach to segmentation of the customers into the group and also to find a way how to measure the effectiveness of the segmenting.

Taking inspiration from the theoretical model and practical experiences of expert working in this area, my practical part aimed to generate a model that included segments with homogenous behaviour and with maximum differences among other groups. Thanks to the interview and work with secondary data I collected the sufficient information for describing the needs influencing the decision of customers. All the needs were identified based on the questionnaire proposed. Then the model was evaluated and the most common replies of the typical representative of each profile group were determined.

The output of my model is easily understandable percentage that expresses the degree of inclusion of the customer to the profile that was created according the describe needs and, on the other hand, it can be decomposed into individual needs. The model therefore shows the overall picture of the regulator as well as detailed assessment of their properties.

The limitation of my thesis was caused by specifics of the group observed that was B2B sector in energy industry. That is why I decided to focus more on the methodology as the title indicates. The new segmentation tool enables direct application of knowledge gained during my research that can influence, or more accurately said, improve the B2B segmentation approach to customers on the Czech market.

I would like to end my master thesis with thought that I would be glad if my new methodology segmentation and analysis of B2B segmentation on Czech market will be subject of discussion

from different angles in the future. I am aware of the subjectivity of my topic and the impossibility of studying all the material, but I hope my thesis has contributed to the academic community, professional and public to clarify this issue and make progress towards further research in the area of B2B segmentation in energy industry.

Bibliography

Act No. 458/2000 Coll., on conditions of the running of a business and state supervision in the power industry, amending selected acts of law (the Energy Act), as amended

COMMISSION STAFF WORKING PAPER: Progress report of the Energy Efficiency Action Plan 2006. European Commission. Brussels, 2011. Available from WWW <http://www.europa-nu.nl/9353000/1/j4nvgs5kjg27kof_j9vvikqpopjt8zm/vinkd2nkvnxu/f=/pdf>.

DIXIT, A. K.; PINDYCK, Robert S. *Investment under uncertainty*. Princeton University Press, 1994, ISBN: 978-0691034102.

DOYLE, Peter. *Value-Based Marketing: Marketing Strategies for Corporate Growth and Shareholder Value*. Wiley, 2000. ISBN-10: 0471877271.

ENCINAS, N. et al. Energy market segmentation for distributed energy resources implementation purposes. *IET Generation, Transmission & Distribution*. 2007, 1, (2), pp. 324–330. ISSN Print: 1751-8687, Online: 1751-8695.

GARBARINO, Ellen; JOHNSON, Mark S. The Different Roles of Satisfaction, Trust and Commitment in Customer Relations. *Journal of Marketing*. Vol. 63, No. 2, Apr., 1999, pp. 70–87. Available from WWW <<http://www.jstor.org/stable/1251946>>.

HÁBA, Stanislav. *Síťová odvětví v EU: Hodnocení regulace elektroenergetiky v ČR*. Prague, 2010. Master Thesis. University of Economics, Prague.

HAGUE, Paul. *Segmentation in B2B Markets*. B2B International. Available from WWW <http://www.b2binternational.com/library/whitepapers/pdf/segmentation_in_b2b_markets.pdf>.

HARRISON, Matthew; HAGUE, Paul; HAGUE, Nick. *Why Is Business-to-Business Marketing Special?* B2B International. Available from WWW: <<http://www.b2binternational.com/library/whitepapers/whitepapers04.php>>.

JOBBER, David. *Principles and Practice of Marketing*. McGraw-Hill Publishing Co., 2004. ISBN 0-07-710708-X.

KOTLER, Philip. *Marketing Management (Millennium Edition)*. Prentice Hall, 1999. ISBN-13: 978-0130122179

KOTLER, Philip. *A Framework for Marketing Management*. Upper Saddle River, NJ: Prentice-Hall, 2006. ISBN: 978-0131452589

KOTLER, P. *Marketing Management* (1st ed.). New Jersey: Englewood Cliffs, 1967.

KOUDELKA, Jan. *Segmentujeme spotřební trhy*. Prague: Professional Publishing, 2005. ISBN 80-86419-76-2.

MACHKOVÁ, H., KRÁL, P. a kol. *International Marketing: Theory, Practices and New Trends*. Prague: Oeconomica, 2010. ISBN 978-80-245-1643-1.

MCCARTHY, J. *Essentials of Marketing*. Irwin Professional Publishing, 2009. ISBN: 9780077405410

MCDONALD, M. *Market Segmentation: How to do it, how to profit from it*. Elsevier, 1998. ISBN 978-0-7506-5981-9.

MOSS , S. J.; CUNED, M. *Market Segmentation and Energy Efficiency Program Design*. California Institute for Energy and Environment, November 2008. Available from WWW <<http://uc-ciee.org/downloads/MarketSegmentationWhitePaperSummary.pdf>>.

MCRAE, M.; BROWN, J. (eds). *CLASSIFY-PROFILES: Volume 2: Commercial and Industrial Customer Needs and Energy Decision Making*. Prepared by National Analysts, Inc. for Electric Power Research Institute, April 1995. Available from WWW <<http://my.epri.com/portal/server.pt?space=CommunityPage&cached=true&parentname=ObjMgr&parentid=2&control=SetCommunity&CommunityID=405>>

NISSEL, H. E. *Federal Rate Design Standards and Energy Conservation*. Public Utilities Fortnightly, 1979. p. 24, ISBN 6238598.

NUNES, Paul; JOHNSON, Brian. *Mass affluence: seven new rules of marketing to today's consumer*. Harvard Business Press, 2004. ISBN 1591391962.

PHILLIPS, Ch. F. *The regulation of public utilities*. Arlington Virginia: Public Utilities Reports, 1993.

Report on progress in creating the internal gas and electricity market. Communication from the Commission to the Council and the European Parliament. Brussels, 11.3.2010. SEC(2010)251 final. Available from WWW: (1) Report

<http://ec.europa.eu/energy/gas_electricity/doc/2010/com_2010_0084_f_en.pdf>; (2) Technical Annex <<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=SEC:2010:0251:FIN:EN:PDF>>.

SHEPHERD, William G. *Public Policies Toward Business*. Homewood: Richard Irwin, Inc. , 1985. ISBN 0256084645.

SMETANA, Juraj. *Finanční analýza společnosti CEZ a porovnání s evropskou konkurencí*. Prague, 2010. Master thesis. University of Economics, Prague.

SLANÝ, A.; ŽÁK, M. *Hospodářská politika* (1st ed.). Prague: C.H. Beck, 1999. 271 s. ISBN 8071792373.

TEDLOW, Richard S. *New and improved: The story of mass marketing in America*. New York: Basic Books, 1990. ISBN 0465050239.

TEDLOW, Richard S.; Jones, Geoffrey. *The Rise and fall of mass marketing*. Routledge, 1993. ISBN 0415075734.

WEINSTEIN, Art. *Handbook of market segmentation: strategic targeting for business and technology firms*. Routledge, 2004. ISBN 9780789021571.

WILSON, Charlie; DOWLATABADI, Hadi. Models of Decision Making and Residential Energy Use. *Annual Review of Environment and Resources*. Vol. 32: 169-203 (Volume publication date November 2007). First published online as a Review in Advance on June 26, 2007.

WRIGHT, Malcolm; ESSLEMONT, Don. The Logical Limitations of Target Marketing. *Marketing Bulletin*, 1994, 5, 13-20, Article 2. ISSN 1176-645. Available from WWW: <http://marketing-bulletin.massey.ac.nz/V5/MB_V5_A2_Wright.pdf>

ZIMUND, W.G. *Exploring Marketing Research* (6th Edition). Fort Worth: The Dryden Press, 1997. ISBN: 0-03-018763-X

Internet Sources:

- 3E Europe Easy Energy <www.3-e.cz>
- AGL Energy <www.agl.com.au>
- Best Practices Benchmarking for Energy Efficiency Programs <www.eebestpractices.com>
- Czech Statistical Office <www.czso.cz>
- CEZ Group <www.cez.cz>
- ČEPS, a. s. <www.ceps.cz>
- E.ON <www.eon.cz; ww.eon.de>
- Electric Power Research Institute <www.erpi.com>
- Energy Regulatory Office <www.eru.cz>
- Investopedia <www.investopedia.com>
- Nano Energies <www.nano-energies.cz>
- OTE, a. s. <www.ote-cr.cz>
- PG&E <www.pge.com>
- Power Exchange Central Europe <www.pxe.cz>
- PRE <www.pre.cz>
- ScottishPower <www.scottishpower.co.uk>
- RWE <www.rwe.de>
- Southern California Edison <www.sce.com>
- Wikipedia, the free encyclopedia <en.wikipedia.org>

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Appendix

Price of energy on exchange

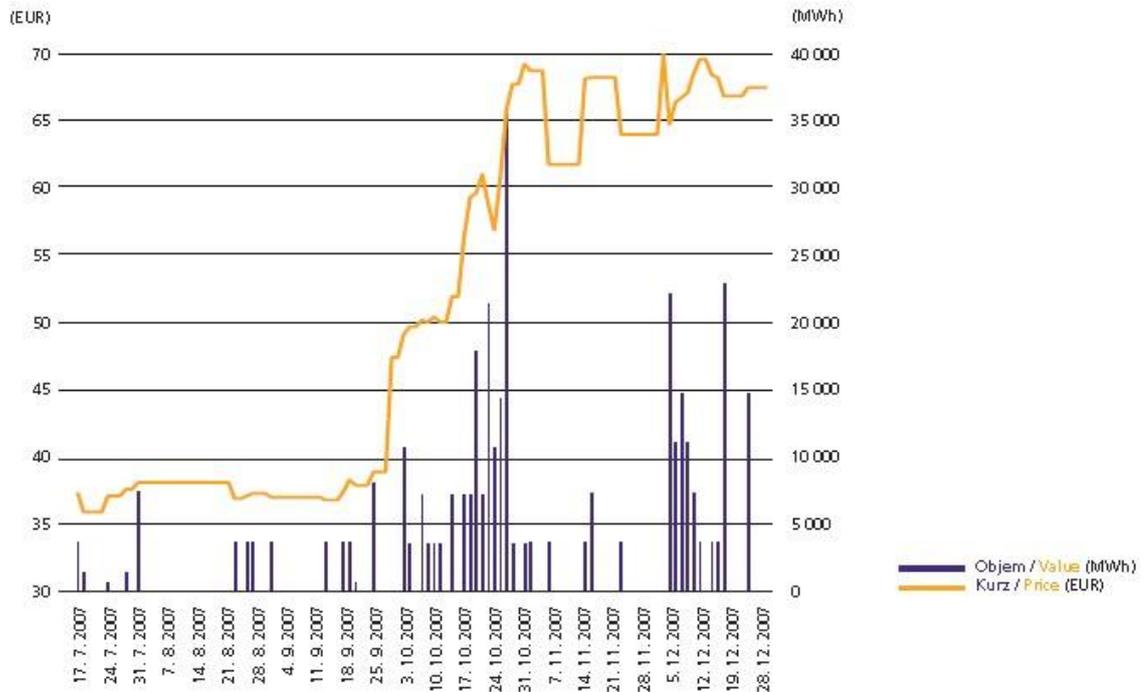


Figure 25: Monthly ahead PX prices 2007, Source: Power Exchange Central Europe, Fact Book 2007, p. 48.

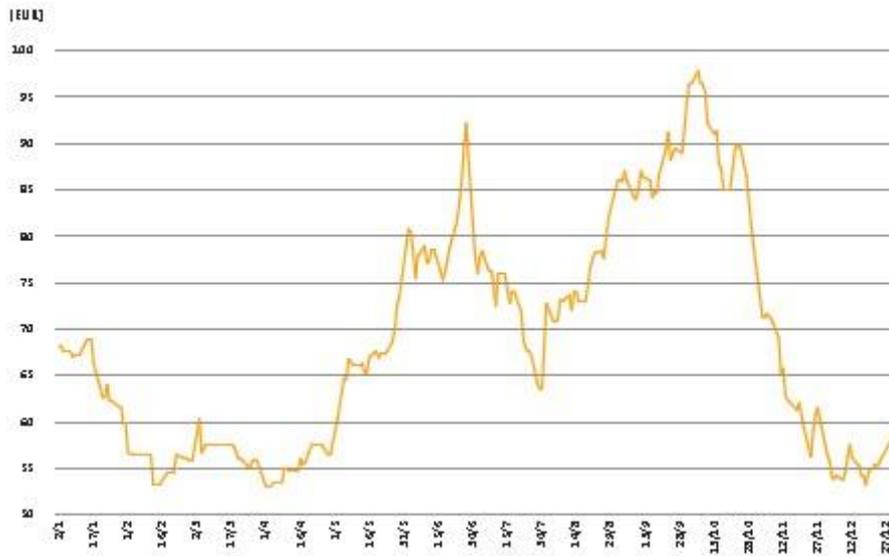


Figure 26: Monthly ahead PX prices 2008, Source: Power Exchange Central Europe, Fact Book 2008, p. 38.



Figure 27: Monthly ahead PX prices 2009, Source: Power Exchange Central Europe, Fact Book 2009, p. 39.



Figure 28: Monthly ahead PX prices 2010, Source: Power Exchange Central Europe, Fact Book 2010, p. 40.