# CZECH UNIVERSITY OF LIFE SCIENCE PRAGUE

FACULTY OF ECONOMICS AND MANAGEMENT

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DEPARTMENT OF MANAGEMENT

# DIPLOMA THESIS

BUSINESS STRATEGY IN CHEESE MANUFACTURING

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**DECLARATION**

I honestly declare that I elaborated my diploma thesis titled "Business plan in cheese manufacturing" entirely and completely on my own. I have marked all quotations in the text and all literature used in this work is stated in the Reference section of the thesis. I declare, as an author of the thesis, that I did not infringe any copyright of a third person.

Prague, 30th November 2011

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Lenka Marková

**ACKNOWLEDGEMENT**

# BUSINESS STRATEGY IN CHEESE MANUFATURING

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# PODNIKOVÁ STRATEGIE PRO VÝROBCE SÝRŮ

**Summary**

The diploma thesis is focused on evaluation of the current competitive position of selected cheese producer leading to strategic alternatives formulation for its further development. The assessment is based on strategic management theories and also macroeconomics, agriculture economics, statistics and economics of enterprises.

Firstly, literature resources are reviewed related particularly to the field of strategic management. This part deals with importance of external and internal analyses while shaping the business strategy. Selected theories provide bases for case study analyses.

Subsequent part describes specifics of cheese manufacturing, current state, global trends in dairy industry and characteristics of Czech dairy and cheese industry. It is pointed out a strong interconnection of world dairy markets in terms of milk prices and potential of cheese industry in developed countries.

The case study describes competitive standing of company Orrero, the cheese manufacturer of only "parmesan" cheese in the Czech Republic. The analyses include general, competitor, financial and portfolio analyses.

The final chapter is focused on customers of "parmesan" Gran Moravia, the profile product of Orrero. Developed qualitative and quantitative research gives a base for improvements of company business strategy. Outcomes of research point out the need to concentrate effort to quality issues and advertisement. Further quantitative research stress the importance of customer satisfaction as a tool to create customer loyalty.

At the end, the focus is given to current strategy of the company. Furthermore, strategic recommendations are formulated based on previous results.


**Key words:** Business strategy, Generic strategies, Cheese producer, Strategic analyses, Strategy formulation, Rivalry, Parmesan


**Souhrn**

Diplomová práce se zabývá hodnocením současné konkurenceschopnosti vybraného výrobce sýrů, které umožní formulovat strategická doporučení pro jeho další rozvoj. Hodnocení je založeno na zásadách teorie strategického managementu a také na makroekonomii, agrární ekonomii, statistice a ekonomii podniků.

Nejprve se provádí přehled literárních zdrojů se zaměřením zvláště na oblast strategického managementu. Ukazuje se zde významnost externích a interních analýz pro formování podnikové strategie. Vybrané teoretické postupy se pak dále uplatňují pro analýzy a hodnocení v případové studii.

V další části práce se popisují specifika sýrárenské produkce, současný stav a globální trendy v mlékárenském průmyslu. Uvádějí se charakteristiky českého mlékárenství a sýrařství. Zdůrazňuje se vliv globálního propojení a interakce světových trhů s mlékem s dopadem na ceny mléka a potenciál sýrárenského průmyslu v rozvinutých zemích.

Případová studie hodnotí konkurenceschopnost firmy Orrero na českém trhu, našeho jediného výrobce „parmazánu". Provádějí se analýzy konkurenceschopnosti, finanční a portfoliové analýzy.

Poslední kapitola se zaměřuje na zákazníky Gran Moravia, profilového produktu Orrera. Provedený kvalitativní a kvantitativní výzkum poskytuje podklady pro doporučení na zlepšení obchodní strategie firmy. Výsledky výzkumu ukazují na nezbytnost soustředit se na jakost a větší propagaci výrobků. Kvantitativní výzkum zdůrazňuje význam spokojenosti zákazníka jako nástroje pro další formování zákaznické loajality.

Závěrečná část se zabývá současnou strategií společnosti a možnostmi dalšího rozvoje. Strategická doporučení vycházejí z výsledků analýz a hodnocení provedených v této práci.


**Klíčová slova:** podniková strategie, generické strategie, výrobce sýru, strategické analýzy, formulace strategie, rivalita, parmazán

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## 1      INTRODUCTION

Fresh flowers from Holland, cheese from Switzerland, steaks from Argentina - the World has become global and fast moving marketplace in the beginning of 21$^{st}$ century. Dozens of new companies are arising and entering various world markets every day. Nevertheless, just few companies succeed only. Those are companies which rapidly adapt to changing business environment, and which are able to build sustainable competitive advantage and to achieve performance targets at the same time. Managers have to interconnect their traditional functional areas and response to the new complex environment by new way of thinking based on strategic management. Analyses are the starting point of strategic thinking. Laszlo Birinyi, successful investment manager quoted:

*"Things are always different- the art is figuring out which differences matter."*

There is a need of a deep understanding of factors surrounding the company. These factors form external and internal environment of the company. Without external and internal analyses managers cannot select powerful strategy leading to prosperity and sustainable competitive advantage. The most powerful business employs generic competitive strategies. The aim of these strategies is to hit down the rivals by performing better and being one step forward than rivals. However to formulate competitive strategies it is necessary to have better orientation in the business processes and distinguish important factors in right time to take an advantage.

## 2    OBJECTIVES OF THESIS AND METODOLOGY

*The objective* of the diploma thesis is to assess current competitive standing of the selected cheese producer and based of the strategic analyses of its competitive environment to formulate strategy for its future development.

*The methodology* of the diploma thesis is based on systematic application of basic principles of strategic management, critical review of the current cheese industry and competitiveness of selected cheese manufacturer in the Czech Republic. The thesis is structured into four thematic sections providing transparent view on shaping business strategy.

Firstly, in the literature overview, there are summarized significant publications addressed to the field of strategic management. The theoretical part is constructed in order to provide both methodological assistance and fundamental assumption for further case study analyses. Systematically, the literature overview is based on handbook resources published predominantly in English language and supplemented by electronic resources. The list of resources is given at the end of the thesis.

Secondly, there are characterized trends in dairy industry influencing significantly a business strategy of each cheese producer. This part examines both global trends and dairy specifics in the Czech Republic. Special emphases are given to milk prices considered as important factor in the cheese manufacturing.  The analyses of current global trends are based on online databases such as *FAOSTAT, statistical division of Food and Agriculture Organization*; and *USDA, statistical database of U.S Department of Agriculture*. For specifics of Czech dairy industry, it is used the database of *ČSÚ (Czech Statistical Office)*; *EUROSTAT, Statistical Office of the European Commission*; and also situational analyses published by the Czech Ministry of Agriculture and by SZIF (Agricultural Interventional Fund of the Czech Republic). Milk prices in selected European regions are also based on data collection of CLAL, the Italian dairy economic consulting organization.

Thirdly, the Case study enlarges theoretical view in respective field by practical dimension. The cheese manufacture Orrero was selected in order to make assessments of his opportunity to more intensify influence in the Czech cheese market. Therefore, the thesis is focused on challenges of business activities within the Czech Republic only. The

author of the thesis cooperated with the cheese manufacture Orrero a.s situated in Tři Dvory, Litovel. The external and internal environment of the company Orrero is analyzed.

External environment consist mainly of general and competitor analyses. General analyses are based on complementary resources such as database of *ČSÚ*, *EUROSTAT* and online surveys published by *the Czech National Bank* and *the European Central bank.* Competitor analyses are based on Porter's Five Force Model. For information concerning competition in the cheese industry, the professional magazine *Zboží&Prodej N.186* was applied. Important information about rivals of Orrero were obtained also on competitors websides or in case study Parmagiano-Reggiano of the European Comission. Futher, the author of the thesis analysed rivalry of parmesan type of cheese producers in most important food retail chains in Prague.

Internal environment comprises from financial analyses and portfolio analyses. Financial situation of the company is evaluated by selected financial ratios and by Altman Z-score model of bancrupcy. Financial analyses are based on Income statements and Balance sheets published online by the *Czech Ministry of Justice*. Product portfolio is analysed by BCG (Boston Consulting Group) matrix. Analyses inputs are based on multiple researches of the *Czech Ministry of Agriculture*, statistics of *ČSÚ* and also on internal information of Orrero.

Lastly, the section Analyses and assessment of cheese market perspectives was developed own quantitative and qualitative analyses of customers purchasing cheese Gran Moravia, profile product of Orrero. Consequently, the results of the customer analyses provide important information for formulation of future strategic alternatives.

The tool of qualitative research is represented by group interviews. It was selected five groups of people with four members in each group. Interviews were performed separately within the groups and the author of the thesis moderate the interview and gave inputs to discussion. The group interviews had informal character and respondents interacted spontaneous. Information was fixed by written word and results were interpreted.

The quantitative research is based on questionnaire survey. The objective of the research is to analyze overall satisfaction of Gran Moravia consumers. The author of the thesis questioned 100 customers purchasing the cheese Gran Moravia in the Farmer Market located in Vítězné Náměstí (Prague 6). The results were processed by three types of

analyses: frequencies analyses, descriptive statistics and correlations. The software IBM SPSS Statistics, program for statistical analyses, was applied. The first analyses sorted data in terms of frequencies of respondents' answers. The second type of analyses used descriptive statistic to determine averages of customers' replays. The third type of analyses, correlations, employee statistical measurement of the intensity of dependence of selected variables in order to determinate factors of overall satisfaction.

The diploma thesis is concluded by analyses of current business strategies. This part revises current business strategies of cheese producer Orrero. Further, the strategic recommendations for its improvement have been formulated. The analysis use mainly previous results of the diploma thesis and put them into strategic relations. This part is also supported by researches of *Incoma Gfk*, Czech organization providing economical analyses and communication advertisement policy published by Medea Group.

## 3 LITERATURE OVERVIEW

### 3.1 Strategy Hierarchy

According to Thomson [3], the strategy is defined as a "game plan management using to stake out a market position, to attract and please customers, to compete successfully, to conduct operations, and achieve organizational objectives." In other words, managers have to make choices between alternative markets, focus on customer needs, go ahead with competition and use resources in order to organize operations successfully.

Strategy of a company is subdivided into four levels, namely into Corporate strategy, Business strategy, Functional-area strategies within each business and Operating strategies within each business [3].

Corporate strategy is the top level strategy. The strategy is created by CEO (Chief executive officer) and other senior executives and it represents a general plan of a whole company that has more than one business (it covers production strategy, financial strategy, marketing strategy, brand strategy, sales strategy, and human resource strategy). In a larger company, there grows a need to delegate strategy from the top management to lower one. As the company is focused in single business, corporate level and business level merge into one level - into Business strategy [2, 3].

Business strategy is below corporate level. For this level are responsible general Managers of each specific line of business. The primary role of managers is to react to changing market environment, to strengthen market position and build competitive advantage. Secondary role of management is to control lower levels of strategies and objectives of business level have to fit with objectives of corporate level strategy [2, 3].

Functional-area strategies within each business are orchestrated by the heads of major functional activities within a particular business. For example, marketing department is creating a plan for improving sales; product development strategy includes innovations in order to fulfill costumer needs, etc. The primary role of functional managers is to create value for costumers, support business strategy and focus on competition [2, 3].

Operating strategy is at the bottom of the strategy hierarchy and it concerns strategic plans for key operating units such plants, geographic zones and distribution centers. This level is specialized to plan specific activities as advertising campaigns, the management of specific brands, supply chain activities, and website sales. Frontline managers have responsibilities for this level [3].

The strategy of a company as a whole is powerful when all levels of a strategy hierarchy are united and follow long- term direction of levels above [3,4].

## 3.2    Business Strategy

David A. Aaker, the professor of Business at the University of Berkley, in his book "Developing Business Strategy" [1] divides business strategy into six dimensions:

*1. The product market in which the business is to compete*

The size of business is determined by range of offered products and by chosen market and its competitors. Decision about products that business is offering on the market is crucial. Incorrect product orientation connected with incorrect using of resources leads to failure of a business. It is also selected level of vertical integration (a company can become its own costumer or become its own supplier)

*2. The level of investment*

Three strategies are distinguished seeking for a sufficient level of investment: investment to ensure business growth; investment to maintain the existing position on the market; and minimizing investment while doing business.

*3. The functional area strategies need to compete in the selected product market*

Into this area belongs: Product line strategy, Communication messaging strategy, Pricing strategy, Distribution strategy, Manufacturing strategy, Information technology strategy, Segmentations strategy, Global strategy, Internet.

*4. The strategies assets or competencies that underline the strategy*

This dimension covers activities having for a business the biggest strategic importance because of sustainable competitive advantage. It could be for example well established brand name or well known promotional campaign.

*5. The allocation of resources over the business units*

The area contain financial resources (external and internal), physical resources (plants, equipment, locations and access to raw materials), human resources, organizational knowledge and learning, and general organizational resources (company reputation, brand names, patents, contracts and relationship with external stakeholders)  All resources had to be allocated; an incorrect allocation can lead to failure of a business [1,5,6].

*6. The development of synergistic effects across the business*

If two or more business units inside the same company support and complement each other, synergy can be created. For example, two businesses can share sales force or warehouse. Synergy can significantly reduce costs or investment and create value.

Last two dimensions may exist in a company having more than one business.

## 3.3    Process of Strategic Management

In accordance to [7], the process of strategic management is defined as: "a combination of a managerial decisions and actions that determines the long-run performance of a corporation."

The traditional strategic management process contains four basic steps: Situation analyses, Strategy direction, Strategy formulation and Strategy implementation, as it is illustrated in Figure 3.1.
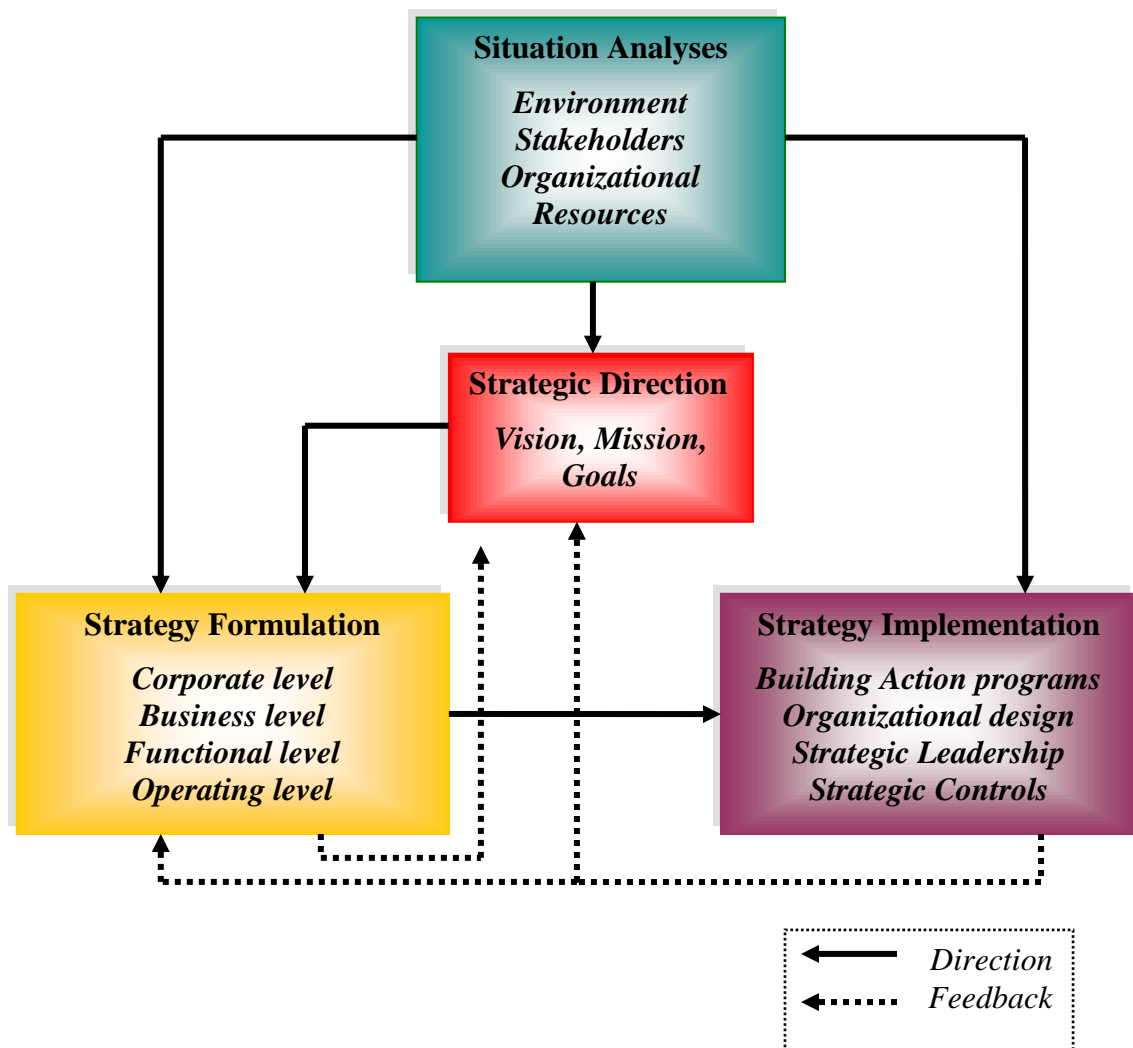


Figure 3.1    Strategic management processes, *resource [2, 6], own design*

The first step of the process is called *Situation Analyses*. It covers analyses of External and Internal Environment (Clauses 3.4 and 3.5), Stakeholders that are both, inside and outside of a company and Organizational resources.

The second step *Strategic Direction* defines *goals, vision and mission* of the company. They provide a guideline and common direction for a manager. Long-term *goals* of a company are forming strategies as a whole. They represent a target that is needed to be reached. *Vision* is oriented to the future focused on prediction where the company is going and why. In contrast, *mission statement* deals with present, where the company stands right now and purpose of its existence [2, 3].

The third step *Strategy Formulation* consists of four levels. All levels have their own strategy and detailed descriptions of those strategies are given in Clause 3.6.

The last step of the process is *Strategy Implementation*.

## 3.4    Situation Analyses - External Environment

External analyses of a company environment represent the starting point when developing a strategy. Presently, the managers are facing massive flow of factors originated outside of a company and the company's competitive success depends on how fast they understand and respond to them. External analyses examine general environment and competitor environment, costumers and a market. Situation analyses should generate inputs for developing forecasts, identifying opportunities, threats and uncertainties. [1, 2, 3]

### 3.4.1    General Environment

The general external environment has significant influence on the company's strategies and the company cannot influence it. The environment is commonly evaluated by two analytical tool: STEP analyses or Scenario analyses. STEP analyses distinguish five factors: *Demographics factors*; *Socio-cultural factors*; *Legislation and regulation*; *Technology* and *Global economic factors* [1, 6].

*Demographic trends* such as age, income, education and population density are strong forces in an industry and they can be easily predictable by public statistics. For example, aging of population in developed countries leads to increase of demand for healthcare products such as medicaments; baby-boom causes opportunities for production

of specialized food producers; stronger influence of ethnical minorities can give a space for establishment of new businesses which orient their activities to attract minorities [2].

*Socio-cultural factors* can create opportunities for one industry but threats for second one. For instance, new trends in life style give a favor of businesses - as production of bio-food or diet food; people is increasing interest in fitness and it gives opportunities to sport equipment producers. Other example of socio-cultural changes is woman as a worker outside of home. Increased income of a family favors a range of industries such as services [2].

*Governmental laws, legislation and policies* significantly influence conditions in which companies operate in both ways, positive and negative. For example, EU agriculture business is influenced by subsidies or present environmental issues favor to green business. However, state regulations can have also negative impact on range of industries. For example, in EU, the production volume of milk is regulated by quotas. This overproduction prevention negatively influences the milk business. If the level of state production runs over, CAP will asset a penalty for „bad" producers. [2, 26]

*Technological innovations* play a key role in growth of industry. For instant, inventions in manufacturing processes can increase productivity and safe company's costs. On one hand, new products entering markets may attract customers and sometimes from a basic invention is created a new industry.  On the other hand, invention of new products leads to decline in prices and demand for out-dated products such as CD's substitution by MP3 format. Thus, technology development can effect an organization positively or opposite, it can be a threat for a business. Technological forecasting can be based on research journals or addressing experts outside of organization [2, 6].

*Macroeconomic forces* significantly influence performance of whole industries and it should be considered while developing long-term strategies. Main macroeconomic indicators influencing various industries include GNP (Gross National Product), interest rates, inflation, exchange rates and trade deficits. For instance, growth of GNP causes higher consumer and industrial demand for products and services; Interest rate fluctuations are associated with decrease or increase of costs for new projects (expenditure for plant and equipment etc.), costs of dept financing or costumer financial ability to purchase new products; Inflation's effects on industries can be both positive and negative. For instance, high inflation increases cost of production factors, enhance difficulties in financing old

debts and consumer's demand for goods and services will be cut down;  Exchange rates fluctuation influences doing business internationally and competitiveness with foreign companies; Trade deficit is influenced by governmental policies [2].

Scenario analyses are effective for dealing with strategic uncertainties. Development of scenario is based on information summarizing trends important for industry. Usually organization creates optimistic, pessimistic and most likely scenario. Second step is to match new strategy to each scenario and creatively react on slight changes of environment.

### 3.4.2   Competitor Analyses

Competitive environment comprises competition in industry and the profitability of the company.

Resources [2, 3, 6] concur that Porter's five-force model of competition is a key analytical tool for both, studying the competitive environment and describing an industry. In the model, the combination of five forces determinates nature and extend of competition, and potential profit of an industry - attractiveness of an industry. Potter's model determinates company's strengths and weaknesses, threats and opportunities. The competitive environment is analyzed in three steps. First step identifies the specific competitive pressures by characteristic of each of the five forces. Second step measures the strength of the pressure of each of five forces. Final step evaluates the general impact on an industry when all five forces are considered together. Figure 3.2 shows the five-force model of competition.[3]

Five forces are following:

1. *Competitive pressure associated with the treat of new entrants to the industry.*
2. *Competitive pressure allied with barging power of the company's suppliers.*
3. *Competitive pressure resulted from bargaining power of the company's customers.*
4. *Competitive pressure connected with the threat of substitute products.*
5. *Competitive pressure associated with the intensity of rival sellers in the industry*

*Rivalry among competing sellers*

According to resource [3], this force is usually the strongest of the five-forces impacting the environment. Rival sellers struggle to improve their market position and profitability. If the rivalry has stronger intensity, attractiveness of industry decreases and oppositely weaker intensity make industry more attractive. Table 3.1 shows examples causing stronger or weaker rivalry.
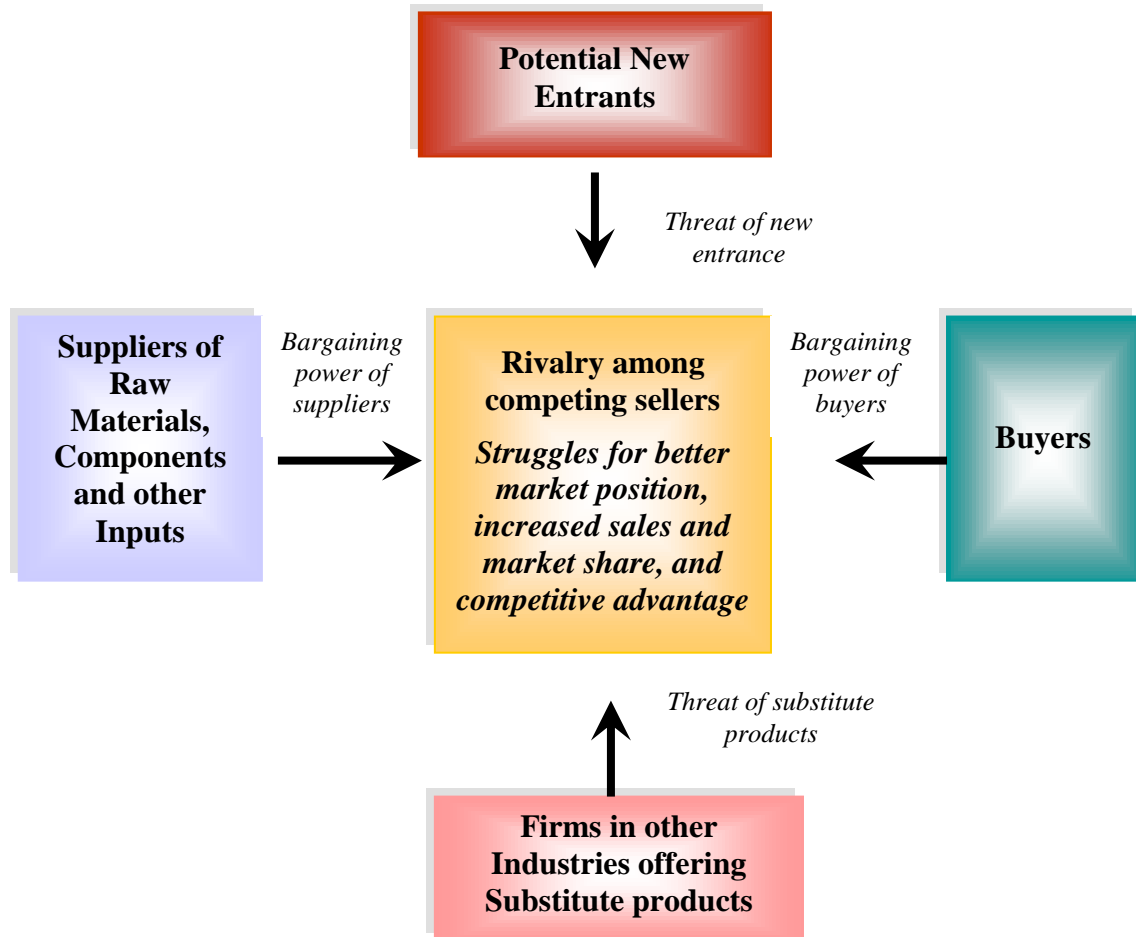
Figure 3.2    Potter's Five - Forces Model of Competition, *source [2, 3]*

| Stronger intensity | Weaker intensity | Weapons against rivals |
|---|---|---|
| Buyer demand is growing slowly | Buyer demand is growing rapidly | Lower prices |
| Rivals have diverse strategies, no clear leader | Rivals have similar strategies | Higher quality |
| Buyer costs to switch brands are low | Buyer costs to switch brand are high | Stronger brand |
| The number of rivals increases | There are fewer than 5 sellers and does not have impact on rival business | Wider selection of models |
| Competing sellers are active to improve their market share | Competitive sellers move non-aggressive to improve their market share | Higher level of advertising |
| Competitors use price cuts to boost unit volume | The products of rival sellers are strongly differentiated | Better dealer network |

Table 3.1    Factors of stronger or weaker intensity of rivalry in the industry and weapons against rivals, *source [3]*

### *Potential New Entrants*

New entrants into an industry may represent unpleasant threat for existing companies because it brings new production capabilities and it can radically change market share of companies, even those well-established. The competitive pressure is stronger when entering company is disposing of specific resources (such as large advertisement) that were not needed in an industry or it is already market leader in another geographic zone with a vision to expand. Managers have difficulties to choose efficient defending strategy against such a strong new entrant however few weapons exist to reduce the threat to entre. To decrease a treat for an industry, entering barriers have to be established. Some important barriers include:

- *Economies of scale* - Increasing volume of production leads to decrease the costs of production. New entrances have lower profitability due to lack of economy of scale, thus due to high costs of production.
- *Product differentiation* - Established companies can produce unique product in eyes of consumers and it will be difficult to increase interest in new product.
- *Capital requirements* - Some industries require high amount of investment to run a business.

- *Switching costs* - New entrances have to persuade consumer to switch the product and it creates psychological costs. It includes training personnel to use a product, testing product or negotiation with distributors.
- *Brand preference and customer loyalty* - In some industries consumers are strongly connected with an established brand. New entrant has to spend big amount of money for advertisement to build its own brand and reputation. Customer loyalty is slow and costly process.
- *Access to distribution channels* - New entrants have to build a way how to access to customers. They have to persuade distributors to purchase their product. New entrances can for example cut a product price and provide a part of their earnings to distributors [2, 3].

### Bargaining power of buyers

Individual buyers dispose predominantly only with low bargaining power. They can have higher power to deal with price when purchasing luxury goods such old cars or houses. However, buyers can increase their bargaining power for normal goods and influence prices in the following circumstances:

- *If the number of buyers is small or if a customer is particularly important to a seller.*
- *If buyer's costs of switching to competing brands or substitutes are low.*
- *If buyer demand is weak and sellers are forced to squeeze prices to support sales.*
- *If buyers are well informed about product market and which quality they can have for relevant price.*
- *If buyers have time to wait to purchase the product when they are unhappy with present deal* [2, 3].

### Threat of substitute's products

Industry attractiveness is influenced by amount of products that are able to substitute an industry's product. The competitive pressure of substituent products depends on their availability, the level of their price, if costumers are attracted by their quality, and how high are switching costs. Substituent products determinate price sealing of an industry. If

another industry offers a cheaper product with similar features in terms of quality and performance, and switching costs are low, customers can massively demand substitutive product and profitability of analyzed industry decreases [2, 3].

*Bargaining power of suppliers*

The power of suppliers can affect an industry's profitability. Intensity of the power depends on the range of factors. The intensity is particularly strong when just few suppliers dominate in a market; supplied product is unique or scared with high switching costs; it is greater concentration of suppliers than the buyer industry; there is luck of substitute product; suppliers can take an opportunity of vertical integration, and suppliers are oriented to more industries [2. 3].

### 3.4.3   Customer Analyses

Customer analyses include determining customer segmentation, motivation and unmet needs in order to outperform the competition and to establish strong customer relationship.

*Segmentation* means identification of customers and splitting them into several groups that share similar needs and demonstrate specific buyer behavior.  Each group has to be large enough to apply effectively unique business strategy. Customer can be characterized by geographic location, lifestyle, sex, age, employment and other specifics. Further, information related to product represents another variable determining market segments. It is investigated for what is a product used, what competitive products consumer regularly purchase, what is a level of price sensitivity, how important is the product quality, if costumers are loyal to brands, and what is important for customer-benefits issue. Quantitative methods of research are often used for purposes of customer segmentation [1].

*Motivation* comprises second important element of costumer analyses. Consumers are driven by their internal forces that influence purchasing decisions. The process of motivation analyses identifies these forces, divides them into groups and selects these motives that are relatively important. Qualitative research is used as the most effective tool to determine costumer motivation. Crucial motives are considered while creating a business strategy. [1]

*Unmet needs* represent both opportunities and threats for any business. This part of costumer analysis explores wishes and specific needs of customer that have been not

fulfilled yet by the market. On one hand, if an organization grants these needs, the costumers will be attracted by new offering. The higher purchase of products results into increase of a company's market share. On other hand, if a competitor detect these unmet needs firstly and adapt a new strategy, other established companies will be threaten by outflow of customers [1].

### 3.4.4 Market Analyses

Market analyses are built on customer and competitor analyses that are covered in previous clauses. This clause is rather focused on a market size and growth, distribution channels, trends, threats, opportunities and strategic uncertainties.

Market size can be determined by total sales level. According to resource [1], successful strategy can gain at least around 15 percent share. It is extremely important to know size of total market but also its submarkets. Submarkets are defined as company's activities such as the technology they use, services they provide, customer segments they target, or geographic areas in which they operate. Submarkets represent new opportunities where companies can expand and each of submarket has his own dynamics. For instant, if a submarket's attractiveness declines and the company depends on only one submarket, it would threaten company's existence. Thus, an organization should differentiate to more submarkets even if they are small [1, 23].

Market growth means higher sales and profit for an organization even if market share remains constant. Prediction of market sales is one of the most important leading factors when deciding investments. However these predictions are bounded by strategic uncertainties. Firstly, it is needed to focus on driving forces leading to sales growth. This includes fluctuation of production costs, opening of new submarkets, governmental policy, improvement in infrastructure or distribution, etc. Secondly, prediction can be based on extrapolation of historical data that have to be purified from random or short term fluctuations. Market sales forecasts can be also based on observing of analogous products or markets. [1]

Monitoring of market trends is one of the most important elements of external analyses. Market trend is influenced by demographics, lifestyle or technology. Trends are driving force of customers to buy a product and this force can influence more than one industry. If trend is captured and incorporated to the business strategy, higher sales are

secured. If company takes an advantage to create trend and driving it, this company would racket to top leaders of an industry [1].

Access to distribution channels belongs to important factors to gain competitive advantage. The distributor links a producer with its costumers because he decides about range of offering products or which brand should be put into attractive shelves. Thus, it is essential to create strong and wide relationship with distributors and to detect powerful channels. Companies should monitor also alternative distribution channels and their trends [1].

## 3.5     Situation Analyses - Internal Environment

Internal analyses do not just evaluate company internal situation in details but detect strengths and weaknesses of its present strategy. When focusing on evaluation of company's performance, the financial analyses represent the most common tool. It covers financial performance, its profitability and sales [1]. According to resource [2], the value chain analyses are the principal analytical tool to determinate strengths and weaknesses of a company. Internal analyses can forecast profitability which may be estimated by customer satisfaction [1].

SWOT analyses are another tool focusing on not only strengths and weaknesses but also on opportunities and treats [15].

### 3.5.1   Financial Analyses

Financial analyses represent important tool to analyze internal company's environment and its healthiness. Analyses can evaluate the position of a company in the market and if present strategy needs some corrections. Deviation in sales or profitability can positively influence company's performance but also endanger competitiveness. For example higher sales can launch advantage of economies of scale. The company's position can be measured by four basic categories of financial ratios:

- *Liquidity ratios* - refer to how quickly an asset can be converted into cash to meet its short-term financial obligations.
- *Leverage ratios* - show relative proportion of its dept to its equity and if a company face some financial risk.

- *Activity ratios* - measure the efficiently of used company's resources.
- *Profitability ratios* – determine ability to generate earnings in comparison to its expenses and other relevant costs incurred during a specific period of time [1,2].

Financial situation of a company can be measured also by summing single indicators into gross indicator. The models with one number characteristic are divided into Bankruptcy models (for example Altman model, Taffler model) and Credibility models (example Modify Quick test, Kralich Quick test).

Altman model is selected for the purposes of the thesis and it will generally evaluate well-being of a company. The results of the Z-score model are divided into 3 groups in accordance to Z values. If a Z gains value under 1,2, a company is going to the bankruptcy. If the value belongs between 1,2 and 2,9, a company performs in the Gray zone. That means that the financial situation of a company is favorable however, there are some serious signals for bankruptcy. If a Z value is bigger than 2,9, the company prospers [65].

The Altman model is based on the linear formula that combines five business ratios, weighted by Altman coefficients. The Z-score formula [65] is given as

$$Z = 0,012T_1 + 0,014T_2 + 0,033T_3 + 0,006T_4 + 0,999T_5 \qquad (3.1)$$

where

$T_1$ = Working Capital[1]/ Total Assets (*Liquid assets related to the size of the company*)

$T_2$ = Retained Earnings / Total Assets (*Measures profitability of the company*)

$T_3$ = Earnings before Interest and Taxes / Total Assets (*Measures operating efficiency*)

$T_4$ = Market Value of Equity / Book Value of Total Liabilities (*Adds market dimension*)

$T_5$ = Total Sales/ Total Assets (*Measures Total asset turnover*)

### 3.5.2 Value Chain Analyses

The main role of value chain analyses is formulating the company's strategy. The subject of value chain analyses is to determinate what is the share of single activity on value added of a company and what are costs of single activities. It determinates whether a company's costs and prices are competitive enough to become industry leader. Analyses are based on

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[1] Working capital =  current asset – current liabilities

decomposition of company's activities into separate primary and support activities and it is distinguished whether this activities belongs to strengths or weaknesses [2].

Primary activities cover *inbound logistic, operations, outbound logistic, marketing and sales,* and also *services* [2].

*Inbound logistic* - activities connected with materials handling, storage, inventory controlling, systems of managing supplies and its efficiency.

*Operations* - activities that transform inputs into final products such as machining and degree of automation, packaging, assembly, equipment maintenance, efficiency of production management, efficiency of production capacity.

*Outbound logistic* - activities associated with final product handling such as storage and its efficiency, and efficiency of delivery final products to customers.

*Marketing and sales* - activities supporting advertisement and promotion, product mix, price, evaluation of distribution channels, efficiency of marketing research, degree of costumer brand loyalty, brand reputation, sellers motivation and knowledge.

*Services* - activities linked to providing assistance to buyers such as customer training, installation, repair, buyer inquires, complains and technical assistance.

Support activities comprise of *the company's infrastructure, human resource management, technology development* and *procurement* [2].

*Company's infrastructure* - activities including finance and accounting, legal and governmental affairs, planning, top management, information systems,

*Human resource management* - activities required to recruit, train, motivate and reward employees, evaluation of employee's further education, carrier growth possibilities, working relationships, workers efficiency, and quality of working environment,

*Technology development* - activities and costs connected with product and process developments, product and service distribution, development of research, quality of laboratories, development of computer software, and telecommunication systems.

*Procurement* - activities including purchase of inputs, machinery and facilities, purchase efficiency concerning price, time and quality, finding alternative resources, and relationship with distributors.

### 3.5.3  Product Portfolio Analyses

The product portfolio analyses evaluate assessments of product mix manufactured by a company. It evaluates each of the organization's products individually to choose suitable strategies and to allocate resources for each activity. The analysis helps managers to decide on which of these products should be stressed attention and which should be cut out. The Boston Consulting Group Matrix, General Electric Matrix and Product Life Cycle Matrix represent commonly used tools of product portfolio analyses. For the thesis purpose, it is selected BCG matrix which is described below in further details [6, 71].

The BCG matrix graphically shows differences among company's products in terms of relative market share and industry growth rate. Relative market share is defined as the ratio between revenues generated by individual product of the case study of company and the largest competitor's revenues. The industry growth rate means growth rate of sales within the industry (measured by percentage values). The industry growth rate can be computed also as few years average. However, usually the BCG matrix is constructed for one year period or in accordance of production characteristics of the company.

The matrix consists of four quadrants. The axis-x represents the relative market share value and axis-y the industry growth rate. Inside of these quadrants are located individual products (represented by circles which size is determined in terms of product share of total sales). Each of quadrants has specific characteristic that follows.

➢ *Question marks* - low relative market share in high growing industry

The product located in this quadrant requires high cash but the cash generation is low. The managers have to decide if to strengthen this product by market penetration or by product improvement or if to exclude them.

➢ *Stars* - high market share in high growing industry

In this quadrant, products are characterized by long run opportunities for growth and profitability. The product has dominant position on the market but those strategies should be selected that maintain the product in the favorable position (investments to market development, product development, market penetration)

➢ *Cash Cows* - high relative market share in a low growing industry

Cash cows product generates cash in excess of their needs. It should be maintained product's strong market position for as long period as possible. Managers can choose strategies such as product development or diversification. It has to be distinguished which

cash cows products are still potential for generating financial recourses and which products has to be terminated.

> *Dogs* - low relative market share in a slow growing industry

Products located in dogs' quadrant are weak in generation revenues and also week positioned on the market. One of the most used strategies is liquidation.

### 3.5.4 SWOT Analyses

SWOT analyses are useful and commonly used tool in determining internal **s**trengths and **w**eaknesses of a company and its external **o**pportunity and **t**hreats. It describes and evaluates company's overall situation in an industry and highlight its market future opportunities and warns of future threats. The maintenance should be given mainly to strategically important issues [15].

Strengths are some activities or attributes that influence a company's performance positively and improve its competitiveness. An example of strength can be some specific skills in technological know-how, excellent customer service, unique promotional program, distribution facilities, valuable locations, capable employees, ownership of patents, modern or cost-saving technologies, valuable intangible assets such as brand name or strong customer loyalty, leadership on marketplace or entering multiple geographical zones, etc. [3].

Weaknesses represent company's imperfection pushing it to competitive disadvantage. For example drawbacks can be related to unclear strategic direction, incompetent employees, unsuitable production line, problems in debt financing, organizational disorders, weak market position, unskilled managers, etc. [3, 6].

Market opportunities give a company growth potential and increase its profit. Without discovering company's opportunities, the right strategy would be shaped wrongly. However, not all companies are able to capture all opportunities because of limited company's resources and competence. An example of opportunities is expanding to new geographical area, diversification, integration forward or backward, and orientation on new group of costumers, etc. [3, 6].

In the future, company's profitability can be endangered by some activities mostly coming from changing external environment. Threats can be seen in growing sales of substitute products, rival's introduced new competitive product or they ability to create

product in lower costs, changing of buyers needs and wants, slow growth of market, new governmental regulations, etc. [3, 6].

### 3.5.5  Costumer Satisfaction and Brand Loyalty

Monitoring of sales or market share is important for getting new information about fluctuations of observed indicators. Costumer purchase behavior is closely related to financial performance of an organization and it represents one of key factors influencing company's profitability. Costumers form attitudes and feelings related to a product, brand or image of a company that influence their purchase behavior. This feelings or attitudes based on experiences can be sum up to the term customer satisfaction. Phillip Kotler states in his book *A framework of Marketing management* [5]: "If the product matches expectation, the customer is satisfied; if it exceeds them, customer is highly satisfied; if it falls short, customer is dissatisfied." Satisfied customers do not just buy a same product regularly but guarantee long-term profitability for a company. Highly satisfied consumers and loyal consumers recommend product or brand to their surroundings and attract new customers. Satisfaction represents a main indicator that is able to forecast future costume purchasing behavior. Presently the organizations are highly aware of value of loyalty and they put customer satisfaction analyses on top of their strategy. Telecommunication Company O2 represents an example of a big company where marketing department generates annually dozens of reports strictly oriented on customer satisfaction [1, 22].

The primary goal of customer satisfaction measurements is to find out way for improvements. One of the CSM basic tools are Customer surveys. Interviews and questionnaires should be developed in order to prevent misleading questions that could sway costumers' answers. Appropriate questions reflect what is for customer really important. Another useful tool is represented by means of exit interviews because unsatisfied customer abounds with valuable comments helping to improve consumer satisfaction. The quality of customer services may be analyzed also by so called Mystery shopping. Mystery shopping belongs to qualitative method of research. This method is based on hiring "fake" costumers examining quality of services of own employee. Other possibilities include feedback from staff, monitoring of speed of delivery or quality of offered products or services [17].

### 3.6    Strategy Formulation

Since 60th of the last century, numerous strategists have tried to create typology of strategies to compete successfully with five competitive forces mentioned in Clause 3.5.2. Every existing organization could select one or combination of more strategies fitting to its own specific circumstances and industrial environment.  One of the most famous complex approaches belongs to Porter's Generic strategies based on competitive advantage [10].

Competitive advantage is the most important attribute that company should hold to achieve performance above the level of average profits.  Michael Porter describes two types of routs leading to competitive advantage, *differentiation* and *low-cost strategy*.

*Differentiation strategy* - Companies aim to create a unique product and to provide high value to its costumer than competitors. An example of differentiation can be the higher product quality or improving other product features, prestige or status symbol, after-sales service, technology innovation or reliability. The higher value provided to costumers allows charging premium price for a product [1, 2].

*Low-cost strategy* - Companies try to achieve sustainable cost advantage relative to its competition.  Minimizing of costs can be reached by attracting mass-costumers in large target market, creating economy of scale, spending less for R&D, automation of processes, savings in some stage of production, savings in costumer services, providing products in basic versions,  favorable access to row material,  favorable localization of plants, etc. [1,6].

Porter distinguished also third type of strategy called *focus strategy* that combines both types of strategies. However, in contrast with previous strategies, this strategy is focused on narrow market segment, thus to small buyer group, a limited geographic market or to narrow range of products. The product features fits with needs and wishes of the specific group. An example can be selling oversized cloths for corpulent people [1, 17].

Henry Mintzberg extent Porter's deliberate typology by new dimension, by his emergent strategy. "An emergent strategy is a pattern of action that develops over time in an organization". He claims that strategy has to react to turbulent business environment and adapt fast to this environmental changes rather than creating the strategy models. Nowadays, successful strategy has to be flexible [19].

Contemporary strategists concur that both deliberate and emergent approaches are still relevant if an organization use them both. David A. Aaker in his book "Developing

business strategies" highlights *preemptive move* and *synergy* as very effective strategies for an organization. *Preemptive move* is one of the hardest strategies to formulate and implement. A company predicts future steps of competitors and then implements a new strategy that nobody can duplicate. Thus, the strategy is based on first-mover advantage. For example in Japan, Coca-cola preempted competitors by acquiring of all distributors. Preemptive moves can be applied at products, costumers, distribution or service. [1, 20]

*Synergy* emerges when two businesses of one company can linked together in some stage of production. For example, the same warehouses, facilities for manufacturing, sales force, plants or offices may be used. Comparative advantage of synergy can be the lower operating costs, reduces of investment or increase sales [1].

## 4. DAIRY INDUSTRY CHARACTERISTICS

### 4.1 Introduction

Dairy foods belong to essential nutrition of the world population. Milk, cheese and yogurt contain rich resources of proteins, minerals (calcium, phosphorus, magnesium, potassium and zinc), carbohydrate and vitamins (A, $B_{12}$, D, K and riboflavin). It is well known that consumption of high nutritional dairy products positively impacts healthy growth of children. Furthermore, multiple researches of IDF (International Dairy Federation) have shown relation between consumption dairy products and improvement in health conditions of adults suffering from illnesses such as diabetes, hypertension, osteoporosis and obesity [20].

In last four decades, world production of milk increased by more than 75% (from 373,7 to 695,8 million tons). This significant growth is caused by developing countries. For example, India has increased its production five times since 1970 and presently it is the second biggest world milk producer after the European Union. Milk plays exceptional role in developing countries. For example, Indian milk industry provides income to 70 million farmers. Milk also gives relatively quick returns for small-scale livestock farmers and it helps to fight with poverty and undernourishment. For the year 2009, the biggest milk producers follow: EU (152,25 Mt), India (112,11 Mt), USA (85,86 Mt), China (39,95 Mt) and the Russian Federation (32,56 Mt). World production of milk is illustrated in appendix. [21, 22]

**4.2     Factors in Milk Prices and Global Trends in Dairy Industry**

Prices of inputs significantly influence scale of production. In diary sector, milk and its prices play the most important role. In 2007, the diary consumption increased due to global structural changes (changing of diets in developing countries, urbanization, income growth, marketing improvement, governmental programs). This demand growth catapulted milk prices high and milk production rapidly increased. In 2008, global economic crises caused incomes fall followed by insufficient demand and subsequent lower consumption. This resulted into milk overproduction and milk producers had to decrease prices. After recovering from recession, international dairy prices remained at relatively high but stable levels during 2010. According to FAO, present high prices in diary industry can be attributed to high demand for imports in Russia and continuous trend in consumption of dairy products in east-south Asia. Figure 4.1 demonstrates development of milk prices in selected EU regions of both new and former members. The chart shows farm row milk prices in Italy (Lombardi), Bayern (Germany), Czech Republic and Poland from 2005 to 2011. The most expensive milk has been sold by farmers in Italian Lombardi. Bayern milk price is slighter higher than one in the Czech Republic. In Poland, farmers gain the least rewards from purchasers. [24, 25]

Unfavorable weather or disease causing low inputs and high prices of feeds represent other factors influencing milk prices. High energy prices and grain prices can also increase costs of feeds leading to rise in costs of milk production. Natural influences, wide range of global economic factors, political pressure and uncertainties make agriculture trends forecasts particularly difficult.
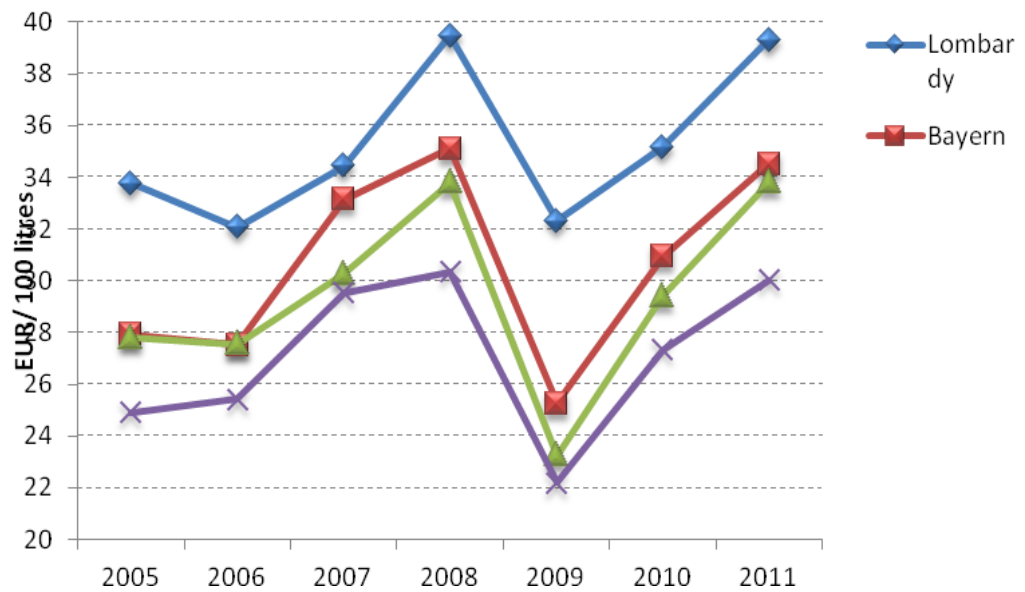
Figure 4.1       Farm-row milk prices in selected regions of EU (2005-2011), source CLAL, *own work*

FAO-OECD outlook 2011-2020 predicts that diary industry will continue to grow the most from all agriculture sectors due to changing eating habits in Asia and higher income. This growth will differ by continent. The highest industry increase is expected by around 3 % in China, India and South America. New Zealand should increase its production annually by 2,3 % and Australia by 1,2 %. In European Union production growth is forecasted by 0,3 % only until 2020. [25]

**4.3     Cheese Production and Trade of the European Union**

The EU represents the world leader in milk production and its dairy commodity trade is enormous. According to FAO, after New Zealand, the European Union has the biggest share 23,5 % (2009) in dairy world trade. New Zealand is specialized in exporting powdered milk. In contrast, in EU, cheese is the top exporting commodity. In 2009, the total amount of EU cheese export reached 3670 thousand tones. The biggest amount of cheese is shipped to the USA and to the Russian Federation. The EU production of cheese illustrates Figure 4.2. Even if the chart shows intermonth fluctuations, cheese production trend upwards from the year 2008 to 2010.
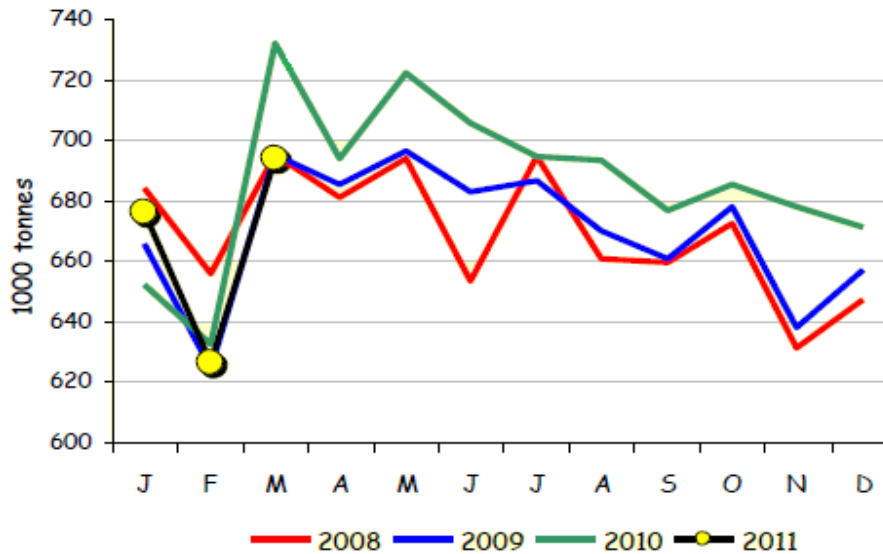
Figure 4.2      EU 27 Production of Cheese in 2008-2011, *source Svět mléka č.08/2011*

Namely, in EU, the biggest amount of cheese produced by Germany (2030,5 thousand tons) followed by France (1834,5 thousand t), Italy (1118,5 thousand t), Netherlands (723,5 thousand t), Poland (633,5 thousand t), and United Kingdom (321,7 thousand t) in 2010. These states comprise 76 percent of total cheese amount produced in EU in 2010.  Figure 4.3 shows the biggest cheese exporters of EU. In 2006, Germany overtook France and its exports hit the peak in 2008. This growth was followed by sharp fall of exports in 2009. The rapid decline of export is related to global economic crises. France holds second position of exports followed by cheese country Netherlands and Italy [21].

Not only Germany is the largest cheese exporter but also the largest importer of EU. In 2009, the cheese imported to Germany comprised the total amount of 578,8 thousand tones (in value of 3393 million USD). The United Kingdom and Italy hold second and third positions in value of imports. The EU is also the first in milk and dairy products consumption, covering 21 % of the total world consumption [21].
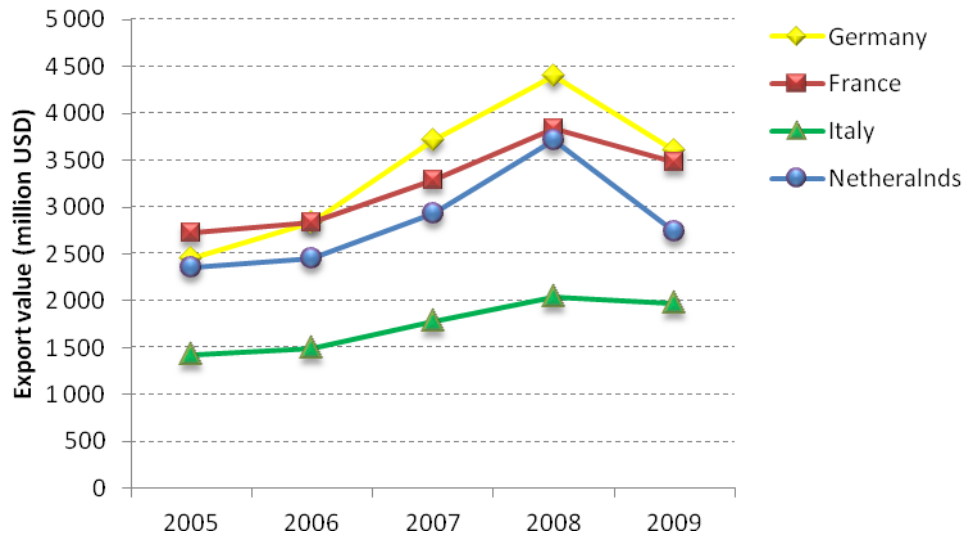
Figure 4.3      Key cheese exporters of EU between years 2005-2009, *source data FAOSTAT, own calculation*

## 4.4     Trends in Dairy Commodity Market Focused on Cheese

After depression in 2008, commodity market prices escalate into high levels due to significant demand of Asia. Butter, cheese, SMP (skimmed milk powder) and WMP (whole milk powder) are the main traded commodities in diary sector. Presently, EU butter prices remain high and demand for butter is strong, and similar situation is in USA. In contrast, Oceania and Russia reduce their butter production. Oceania converts its milk rather to WMP to satisfy rising demand in China. Russia decreased butter production because of high consumption of raw milk by population. SMP and WMP markets blossom due to strong demand from North Africa, Mexico and Asian regions. Thus, forecasts show increasing export of USA and EU to these countries [30].

Trends in cheese production vary geographically. In 2011, Oceania decreases cheese production by 1 % due to its specialization in WMP, particular is focused New Zealand. This cheese reduction should result in fall in New Zealand exports by 11 %. The U.S export is predicted to grow by 3 %. In the EU, it is expected the increase of production by 1 % due to higher availability of milk, higher domestic demand and favorable exports possibilities. Exports are forecasted to rise up to 5 %, shipping especially to the USA and the Russian Federation [30].

Figure 4.4 shows the variation of cheese prices during two last decades. The graph illustrates rapid prices growth since new millennium hitting the sealing in 2008. However, economic crises followed and cheese prices felt down, back to the level of 2005. After depression, the prices recovered remaining rather stable ones and reaching high level in 2011. According to FAO, prices should moderate but remain on the upper level. High prices could be attributed not only from continuous strong demand, but also from rise of feed prices and other production costs, such as energies, labor and land [29].
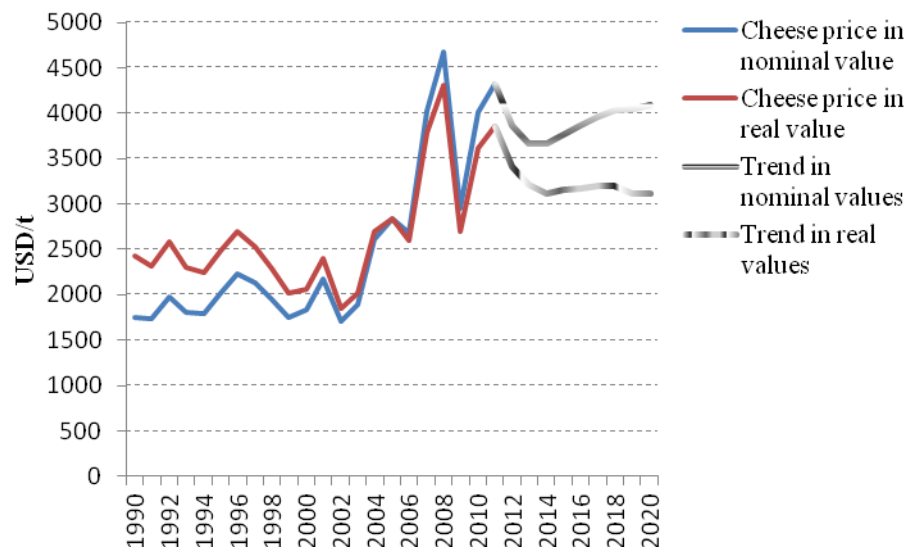


Figure 4.4       World cheese prices and trends from 1990 to 2020, *source data FAO-OECD, own calculation*

## 4.5    Dairy Industry in the Czech Republic

Czech dairy industry plays an important role in the Czech agriculture. From 2004 to 2009, the value of diary production had share between 16,9% and 20,6% in total value of agriculture production. Dairy companies provide income for 14% people of the total amount employed in food processing industry [35, 39].

The performance of dairy sector in the Czech Republic is corresponding with development in foreign diary markets. Thus, farmers and processing companies were not spared from recession and they had to resist fall of consumption and rapid prices decrease in the end of year 2008. Czech farmers produced in total 2612 million liters of milk in 2010. It means drop of 3,5 % in contrast to previous year [36]. The highest production fall by 13,2% and 9,6 % was measured in Jihomoravský and Olomoucký regions [37]. Milk

farms decreased their production because of low returns attributed to low levels of milk purchasing prices. Prices of raw-milk differ by region. For example in August 2011, Olomouc region had by far the lowest farm milk price 7,8 CZK/litter from all Czech regions, in contrast to Jihomoravský region, where creameries shopped the most expensive milk 8,73 CZK per liter.

Development of milk prices illustrates Figure 4.5. The chart shows the maximum of the milk price 10,1 CZK/liter in the first month of 2008. However global economic crises squeezed price to 7,2 CZK/liter by December 2008. Furthermore, in September 2009, farmers had to sell a liter of milk per 5,9 CZK. Afterwards the milk prices have been slowly but steadily growing until September 2011.
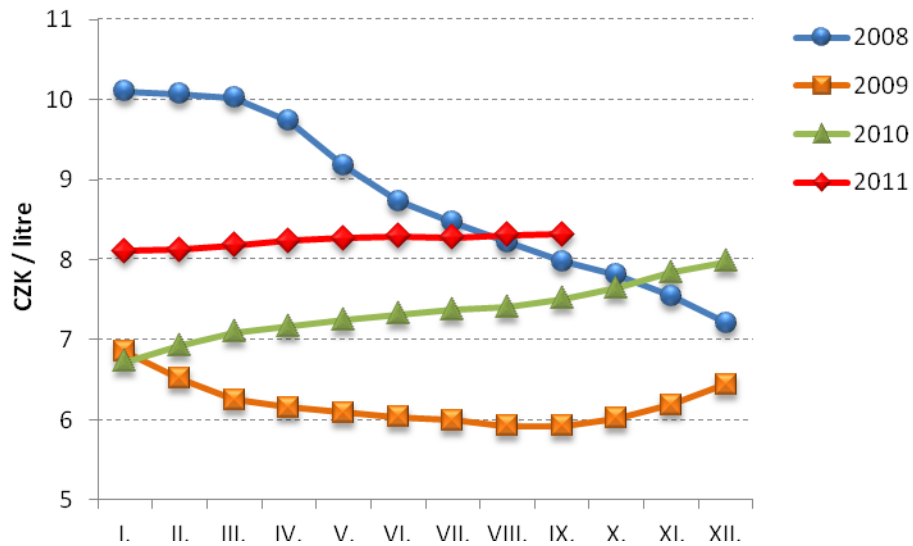


Figure 4.5    Development of average row-farm milk in the Czech Republic-monthly (2008-2011), *data source ČSÚ [30], own calculation*

The Czech diaries buy milk not only from local producers but also from foreign farms. In 2010, Czech diary companies bought 2251437 thousand liters of milk in total and from that amount 15620 thousand liters came from abroad. Until August 2011 it was purchased 1 543714 thousand of milk- from that amount only 7861 thousand liters came from foreign countries. Generally in the Czech Republic, there is a decreasing trend in purchasing milk from foreign countries [38].

Czech foreign trade of dairy commodities is characterized by growing trend of imports. In 2010, foreign producers declared dairy products in total value 10876.4 million CZK that means growth of 12 % in contrast to 2009. Cheese commodities comprise 52 %

of total imports. The second position has yogurt with 16% share of imported diary products. Milk and cream from foreign countries are transported with 12% share of total dairy imports (data showing share in import are related to the year 2010) [45].

Czech Republic exports mainly farm-raw milk to further manufacturing in foreign countries. It was exported 17,5% of total row-milk production into abroad, primary to Germany, Slovakia and Italy [39].

Since 2001, consumption of milk and milk products is steadily growing by 1,89 % (inter-annual average) in the Czech Republic. Statistics of last five years show yearly consumption per person: 56 liters of fluid milk, 15 kg of all kind of cheese and 33 kg of other milk products, in contrast to EU 27 average, where 79 liters of fluid milk and 16,5 kg of cheese is consumed [40].

Czech agriculture association forecasts further reduction in diary production, decrease of state of cattle, increasing of milk yields and fluctuation in milk prices. Czech imports should continue to growth and it is also expected growth in row-milk export [39].

## 4.6    Selected Commodity - Cheese in the Czech Republic

Czech diaries manufactured 134,5 thousand tones of all kind of cheese in 2010. It represents 11,9 thousand tones (9,7%) growth in contrast to previous year 2009. Namely, it was produced 82,6 thousand tones (61%) of natural cheese 18,5 thousand tones (14%) of processed cheese and 33,4 thousand tones (24%) of fresh cottage cheese. In comparison to EU, Czech diaries produce nearly 16 times less of cheese than Germany, 14 times less than France, and 9 times less than Italy. The Czech Republic holds tenth position in EU cheese production.

On one hand, consumption of milk has fallen significantly since 1950 in the Czech Republic. Presently, average Czech inhabitant consumes approximately 58 liters of milk in contrast to 182 liters 60 years ago.  On other hand, cheese consumption is associated with upward trend. In 1950 it was consumed 1,7 kg of cheese per person [48]. Since that time, cheese consumption has increased to 13,3 kg in the Czech Republic. Figure 4.6 demonstrates development of cheese consumption in comparison to EU 27 average in last decade. Czech cheese consumption reached EU 27 level in 2004 and hit the maximum of 13,6 kg in 2006. Afterwards consumption visibly fluctuates and fall to 12,4 kg (year 2010

is estimated in accordance to source [47] because official data were not published yet). Fluctuations can be attributed to income fall in crises in years 2008 and 2009.
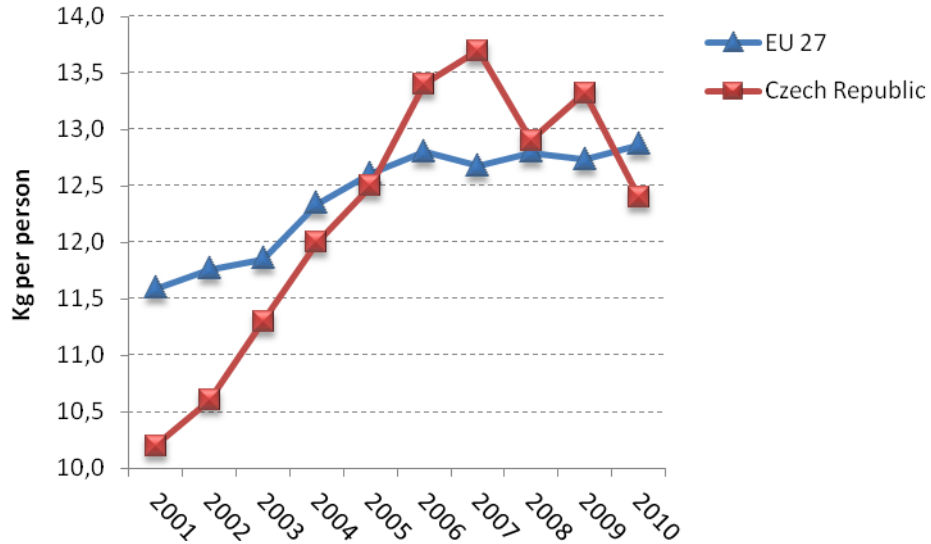


Figure 4.6    Cheese consumption in the Czech Republic and EU 27 from 2001 to 2010, source ČSÚ [40], USDA [41], EUROSTAT [42], Finanční noviny [43], *own calculatiom*

Figure 4.7 shows consumption of some types of cheese in 2009. Czechs consume hard natural cheese the most (51%), than the equal amount of processed cheese and soft cheese (18%). Blue natural cheese is consumed the least (13%). Czech population consumes the biggest amount of processed cheese on the world.

Czech dairy producers face higher competition on the cheese market. In 2009, there was imported 74433 thousand tones (in value 5031,6 million CZK) of cheese into Czech Republic. Cheese is shipped mainly from Poland and Germany. These two countries had 75% share of total cheese imports in 2009 [26]. In 2010 cheese imports grew by 12,5 % in contrast to previous year [26, 45].
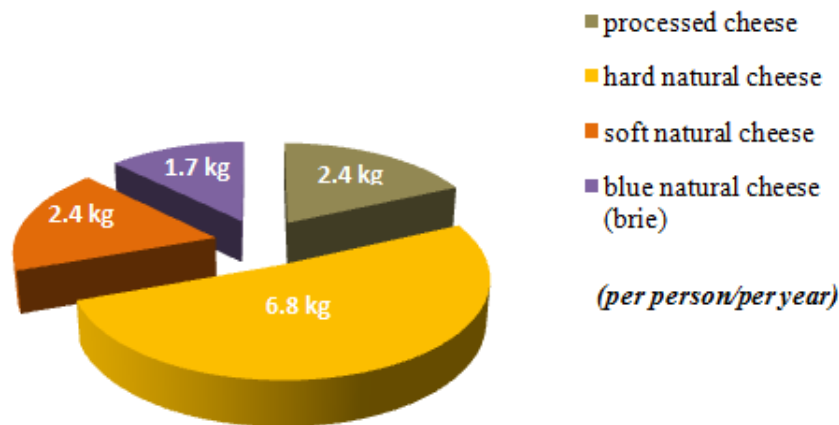
Figure 4.7     Consumption by cheese types in the Czech Republic in 2009, *data source [ČSÚ], own calculation*

Czech cheese export is relatively low. It was exported 25914 thousand tons of all kind of cheese to abroad in 2009. The biggest amount of Czech cheese was shipped to Slovakia in 2010. It was transported there the biggest amount of processed cheese in monetary value 88,5 million CZK and cottage cheese for 142.9 million CZK. Natural cheese is exported mainly to Italy in value of 755,3 million CZK, Slovakia in 441,1 million CZK and France 238,5 million CZK [26, 45].

## 5     CASE STUDY - STRATEGY OF CHEESE PRODUCER ORRERO

### 5.1     Company Characteristics

#### 5.1.1   Introduction of the Company

The cheese producer Orrero was selected for the case study of the diploma thesis. The motivation was that this company is the only one producer of "Parmesan" cheese in our country and would like to increase its market share within the Czech Republic.

In 1996, the Company Orrero was established on the border of the Moravian town Litovel by Dr. Marie Martinú in Pervilli, Czech lady that has found a new home in Emilia Romagna after events in August 1968. There she discovered the roots of cheese making - the origin of Parmigiano Reggiano and her thoughts turned back to Czechoslovakia where shop's shelves offered only few types of cheese in that time. After Velvet revolution in

1989, the transformation of state owned agriculture cooperatives to private agriculture units finally allowed to realize the project of "the Czech parmesan" in Litovel area. Mrs.



Martinú and her Czech-Italian co-partners did not choose this small town also called as "Venice of Haná" only by fortune. Little hills, national parks, sandstone ancient bridge crossing river Moravia and deep traditions of agriculture may remotely remind the land of Italian Emilia Romagna. The company Orrero is placed in town district called Tři Dvory and coincidently the plant is neighboring with the biggest Czech producer of pasta "Adriana". Nevertheless nostalgic motives were hardly only factors determining establishment decision of the cheese manufacturer.

Constant high quality of milk supply at relatively low prices (see Figures 4.1 and 4.2), flexible regulation of milk quotas are some of main reasons for setting up a dairy business in the Czech Republic [51, 52].

The main subject of company is processing of milk to produce several kinds of cheese. Namely it is produced extra hard cheese of "parmesan type" labeled as Gran Moravia, than cheese Verena ("Asiago type"), semi-hard cheese Provolone and soft cheese Mozzarella. Condensed whey, butter and semi-product for processed cheese plant are secondary tradable article of the cheese manufacturing [52, 53].



Figure 5.1      Facility of Company Orrero a.s, Tři Dvory 98, *source Orrero*

In 1996, Orrero put into operation its facilities and start up production. At the beginning, the plant was capable to process only 6000 liters of milk per day. Two years later the production was doubled to 12000 liters of milk per day. In 2000, Orrero a.s signed joint venture[2] with Brazzale s.p.a, the one of the most important dairy companies in Italy, and new investments helped to widen production capabilities by great range. In 2001, the management decided to build buildings to increase further production to 40 000 liters of milk per day and to 60 000 liters one year later. Following two years the daily capabilities of processing milk grew annually by 40 000 liters. Since 2004, the plant have been processing 240 000 litter of milk per day to produce around 7000 tons of several types of cheese.

Consequently the Czech cheese producer Orrero became the biggest producer of hard cheese on the world shipping its products to all continents. Since 1996, when Orrero had only 6 employees, the amount of working places increased to 124 (data from 2010). Furthermore, the company is planning to enlarge factory to process up to 440 000 liters of milk per day by 2015. The enlargement will allow producing yearly around 8750 tons of Gran Moravia, 3000 tons of Verena, 1600 tons of Provolone and 1000 tons of Mozzarella. Thus amount of by-products as butter, condensed whey and cheese for further processing will increase as well [53].

*Caseria Brazzale s.p.a is the oldest diary company in Italy. The history of Brazzale gets to the end of 18th century when already seven generation of family Brazzale dedicate their activities to butter and cheese production. It covers the entire chain from breeding to diary production, processing and product packaging. The group has begun with production of butter labeled as "Burro delle Alpi" in the North-Italian town Zanè. In the 40s, Brazzale group pioneered with industrial production of globally famous extra hard cheese Grana Padano and it become one of the Consortium founder. "Alpillate" or "Zogi" represent another famous brands made by the company Brazzale. Besides production, the group is a great trader with Italian diary product and it is penetrated in markets all over the world. His success is based also in developing of new cheese cutting and packaging technologies that are important quality and cost saver [49, 50].*

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[2] *A joint venture is a business agreement between two or more organizations to form a partnership to share markets, distribution channels, assets, intellectual properties, knowledge and profits but also expenses or loses [47,48].*

### 5.1.2 Legal Characteristics of the Company Orrero

The company was enrolled to Czech trading register as Orrero s.r.o with fixed asset of 400 000 CZK in 30th of May 1995. The company was founded by six co-partners: Ing. Augustin Gec, Vladimír Truhlář, Ing. Petr Lakomý, MUDr. Marie Martinú in Pervilli, Oredo Pervilli and Giovanni Battista Rocca. During 15 years existence the ownership relations have been changing and varying. In 2003, Orrero s.r.o changed its legal form to Orrero a.s. with fixed asset of 210 000 000 CZK. In 2003, the Chairman of the board of directors became Ing. Augustin Gec from Olomouc region and he has stayed in function until now. The fixed asset was divided into 42 000 shares with 5000 CZK as a price of a single share. Shares of the company are not traded on public. In 2010, the most important shareholders represent company Torrerossa Partecipazioni, S.p.A, company of Brazzale Group, with 57.6% of share and formal founder Giovanni Battista Rocca with 27.4% of share.

### 5.1.3 Specification of Main Products of Orrero

Gran Moravia is the crucial product of Orrero a.s recognized as a long-matured extra hard



cheese. Similarly to the original Italian parmesan, Gran Moravia is a handmade product following traditional manufacturing procedures. High-quality milk as a basic ingredient represents a cornerstone of Gran Moravia image. Milk farms are carefully selected in accordance to breeding quality, health and welfare of animals. Milk producers are located mostly in middle and north Moravia and on the east Bohemia. Brazzale Group puts special emphases to environment protections and product quality. In 2003, the Ministry of agriculture awarded Gran Moravia by KLASA[3] mark. In June 2011, the International organization DNV certified Gran Moravia as eco-sustainable supply chain. The chain requires 5 hectares of pasture for each single milk cow in lactation, free standing with individual berths, nitrates level in soil 7 times lower than EU regulations, 10 times lower level of natural aflatoxins that are present in forage. In 2010, Orrero was processing milk from 62 farms that comprised in total 12 500 dairy cows located on 60000 hectares [52, 55].

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KLASA[3] represents a mark that has been issuing by the Ministry of Agriculture since 2003. Only the best quality food and agricultural products can be awarded by KLASA [56].

After few procedures (as standardization of milk, regeneration and projection of milk, thermally treating of milk, renneting and cutting, cheese formation, cheese salting and drying), cheese is seasoning from 10 to 15 month. Because seasoning storage rooms capabilities reach only 1/3 of the production, majority of cheese stay in Orrero warehouses only 3.5 month. Than the cheese is transported by camions to Italy and seasoning process is finishing in storages of Brazzale Group. Gran Moravia is cut into slices and commercially packed [52, 53].

The final product, approximately 6000 tones of cheese, is shipped all over the world. Around 5% of the total production representing 140 tones of Gran Moravia is transported back to the Czech Republic. The Cheese is sold in different packaging size. Customers can purchase loaf of 32 kg, sliced to 100 to 8000 grams, and grated packaging. In the Czech market, Gran Moravia is supplied to wholesale and it is further distributed to market chains as Albert, Albert hypermarket, Interspar, Makro, Globus, Billa, Kaufland and Terno. Recently the company Orrero established also four company shops called "La Formageria". In those shops, shelves offer Orrero and Brazzale chain products and also some delicacies from Italy, France and Switzerland. The shops are located in Olomouc, Brno, Hradec Králové and Ostrava [46, 52].

Orrero facilities produce industrially also few other types of cheese. Verena is similar cheese to Asiago cheese that is originally produced in North-Italian Alps. Verena is a new type of Orrero cheese and belongs to pressed cheese category. The seasoning period lasts around 2 to 5 months. Provolone is steamed semi-hard cheese with taste piquant or sweet, aged minimally 4 months. Provolone Dolce (sweet) was awarded as The Czech dairy product of the year 2010 in category semi hard and hard cheese type [46, 52].

## 5.2 External Environment Analyses of Orrero

### 5.2.1 Identifying dairy industry economic features in the Czech Republic

*Market size:* 2612 million liters of milk in total produced by diary companies in the Czech Republic (year 2010)

*Submarket size (cheese market)*: 134,5 thousand tones of all kinds of cheese (year 2010)

*Growth rate of dairy industry*: mainly negative growth rate, -0,38% inter-annual minimum measured in 2007 and -3,56% negative maximum in 2010. Industry grew positively by +1,64% only in 2008 (considered five years period from 2005 to 2010).

*Growth rate of cheese submarket*: From 2005-2009 inter-annual growth negative, -8,4% maximum in the year 2008 and -1,8% minimum in the year 2009. In 2010 the cheese industry grew rapidly, by +9,67%.

*Position in the life cycle*: maturity

*Number of rivals*: Dairy processing industry is rather partly concentrated than fragmented into many smaller companies. In 1918, milk was processing by 532 diary companies. Presently, statistics show only 173 dairy companies in the Czech Republic. The trend leads to further concentration of diary manufactures. For example, TOP five diary companies have share 40 % of total industry revenues.

*Customers:* nearly all households

*Production capacity:* Industry is not overcrowded. It was produced more milk than was purchased by Czech processing dairies.

*Technological innovation:* Technologies in diary processing are mostly standardized. There are appearing only modernizations of production lines or improvements for example in packaging to make food more durable.

*Product innovation:* Diary companies are often introducing new product. For example, it is invented different flavor of cheese, new image or brand name to attract customers.

*Vertical Integration:* Degree of vertical integration can be expressed by few types of ratio indicators. Here vertical integration is measured by revenues to value added ratio.

$AV$ = value added of an industry;

$TR$ = total revenues of product and services sales in an industry

$$VI = \frac{AV}{TR} = 0,162$$

ČSÚ published that TR reached 37 549 million CZK in category CZ-NACE 10.5 (Processing of milk products) in 2009 and AV represents 6088 million CZK. Index of vertical integration shows relatively low value. Thus degree of vertical integration in diary industry can be considered also as relatively low.

*Degree of product differentiation*: Even if products are quite standardized in dairy industry, processing industries often introduce new product on the market. For example, cheeses are flavored by different spices, new image in packaging or brand name to attract customers.

***Scope of competitive environment:*** Few big companies operate on national or multinational level. Majority of small diaries compete only in local area.

***Economies of scale:*** Companies with big production capacities advantage economics of scale in manufacturing or shipping. Diaries with wide product range favor economics of scale in product purchasing.

### 5.2.2   General Environment Analyses

*Macroeconomic environment*

The Czech Republic is characterized for its export based economy. The share of export to GDP is enormously high; it reaches 75 % of GDP.  Czech trade is strongly dependent on European Union, particularly on Germany (30% share of total exports). Thus, Czech economic growth is closely related to the performance of other member's economies. Presently, the European Union is going through a period of instability. The debt crises of the Euro zone have been causing also slow down of economic growth for the Czech economy. This growth stagnation can be attributed to decrease in household's consumption in both inside and outside of the country. Governmental cuts and new reforms that are aimed to decrease public dept, lead to decrease also demand for goods and services. Figure 5.2 illustrates percentage growth of Gross Domestic Product, commonly used measurement for economic activity. Czech economy performed well with high economical growth from 2005 to 2007. In 2009, all countries in EU came to recession due to global economic crises. Afterwards the growth of Czech economy reached around 2 % only. Predictions carry high level of uncertainty in European Union and scenarios are verified every three months. Latest outlook predicts further slowdown of economy in whole European Union in 2012 with slight improvements for 2013.
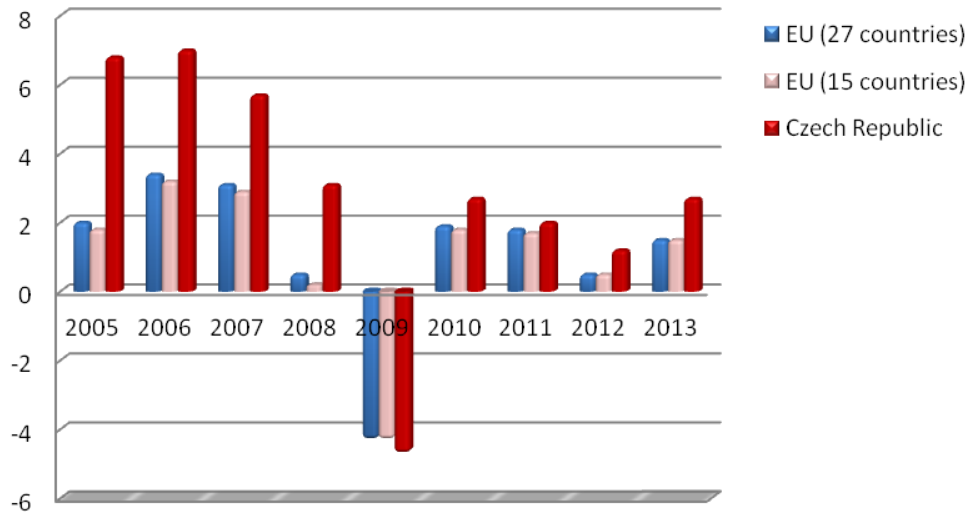
*(Years 2012 and 2013 constructed as prediction of European Commission and Czech National Bank)*

Figure 5.2      GDP growth in the European Union from 2005 to 2013, source Eurostat, European Commission and Czech National Bank, *own calculation*

Inflation represents an important factor influencing businesses in many ways. Firstly, high inflation affects the prices of production inputs as prices of raw materials, wages and supplies and consequently the cost of production rises. Secondly, for example if the Czech Republic has higher inflation rate than competitor countries, then Czech prices gradually rise above imported prices. Thus more imports would be bought and demand for domestic goods would decrease. The same effect occurs with the Czech export. Thirdly, high inflation causes rise of interest rates and businesses have to pay more for bank loans. This results in decrease of company's investments and employment. Since new millennium, the highest inflation rate reached 6,3% in 2008 in the Czech Republic. Latest statistics shows 1,5 % as an average inflation rate for 2010.  Czech national bank forecasts inflation rate 1,8 % for 2011 and 1,6 % for 2011 and 2012.

High unemployment rate affects negatively businesses. Unemployed people dispose of smaller budget to spend and demand for goods and services decreases.  Figure 5.3 shows development of unemployment rate in the Czech Republic in contrast to EU 27 average and Euro zone. 7,9 % unemployment was in the Czech Republic in 10/2011. The Czech Ministry of Finance forecasts unemployment 6,8 % in 2012.
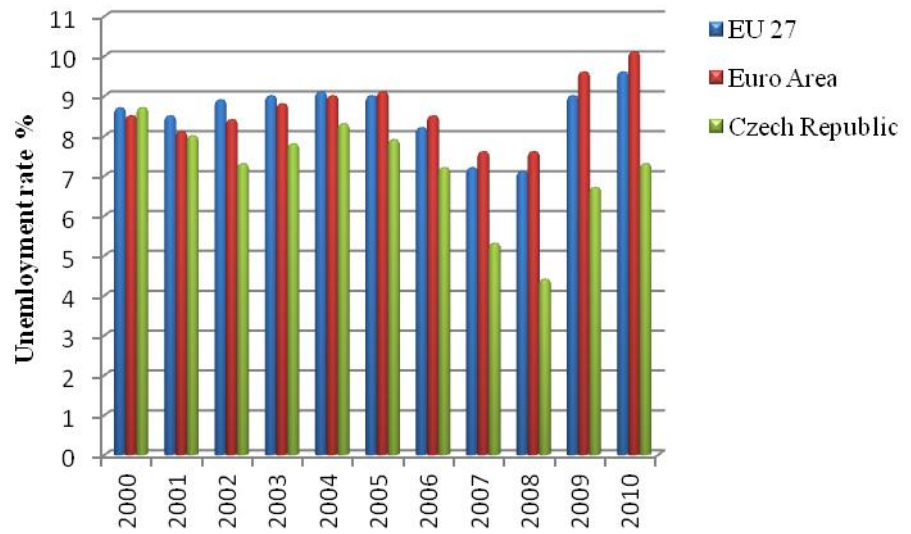
Figure 5.3      Development of unemployment rate in European Union, source Eurostat,

*own work*

Fluctuation between exchange rate of the Czech crown and other currencies represents higher risks mainly for International businesses. Exchange rate volatility can be both advantage and disadvantage for international company if a payment in the foreign currency has to be made at a future date. Czech companies exporting to other countries benefit when their domestic currency depreciates because their products become cheaper in other countries and it grows the demand for these products. Oppositely, companies that import from foreign countries (for example a raw material) benefit when the domestic currency becomes stronger. Thus it enables them to purchase more goods. For instance, the Cheese producer Orrero a.s benefits when domestic currency depreciates, since exports 96 % of its production to abroad. Figure 5.4 illustrates CZK / EUR exchange rate volatility of the Czech crown from November 2006 to November 2011. In February 2008, exchange rate hit the peak of 29,49 CZK/EUR. Afterwards the chart shows continues trend of appreciation with 24,123 minimum in August 2011. According to resource [61] Czech crown should depreciate to 26 CZK/EUR because slow down of an economical activity in the Czech Republic. However long term forecasts of Czech National Bank shows appreciation of Czech currency to 23,1 in 2012 and further 22,5 in 2013.

Figure 5.4     Development of EUR/CZK exchange rate of currencies, source European
Central Bank

*Demographic Trends*

The population in developed countries has been ageing, so in the Czech Republic. This
trend reflects wide range of socio-economical problems. One of its economic consequences
is the higher financial burden of the public budget (healthcare and pension system). The
increasing number of pensioners also requires higher contribution of working population.
Thus, businesses will spend more for wage costs for its employees and this can cause slow
down of economical activities. Increasing of age level when retire may cause insufficient
professional innovations and decrease in worker productivity. Furthermore the changes of
population age structure effects life style of entire country. Pensioners have limited budget
for products consumption so they are price sensitive. This contributes to changes in food
markets, industrial goods and services; and leisure activities. Figure 5.5 shows
development of the age structure in the Czech Republic. The diagram indicates decline of
population of category 15 - 64 with time. In 2010, it was measured 70,1% share of
economical active people to total Czech population. In accordance to middle variant
scenario, Czech statistical office forecasts that the economical active population should
have only 63,5% share in total population.
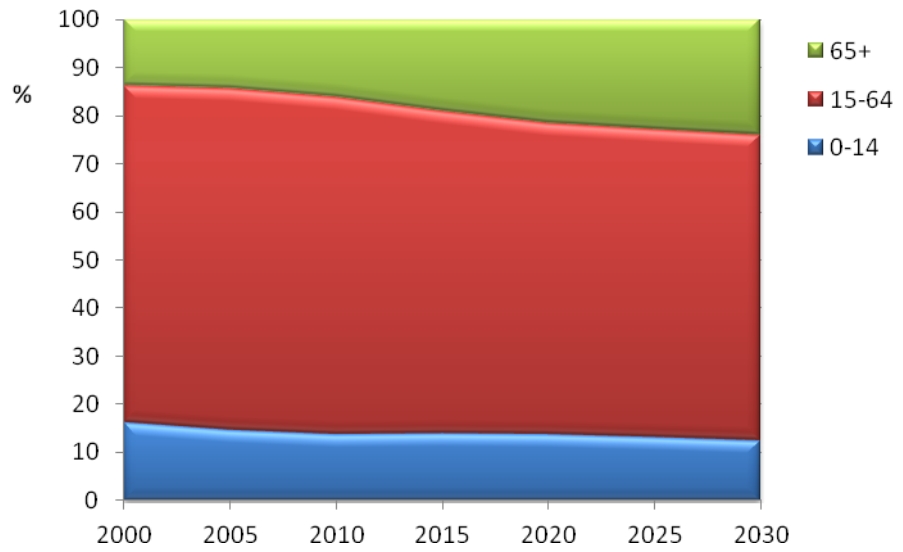
Figure 5.5      Outlook of ageing of the Czech population (2000-2030), source ČSÚ, *own work*

Figure 5.6 illustrates the development of average salary and elderly pensions during the last decade. There is an upward trend of average income growth in the Czech Republic. However, the income growth slowed down in last three years due to unfavorable economic situation in the European Union.
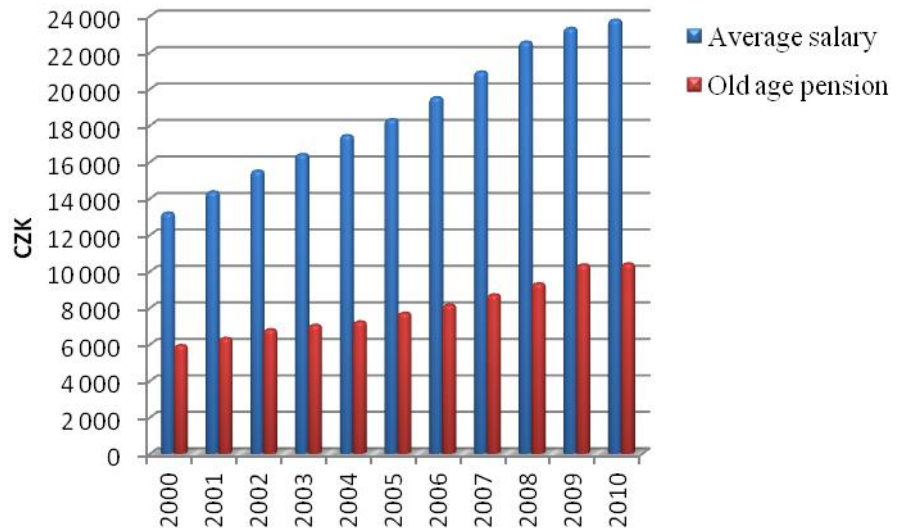


Figure 5.6      Development of average salary and old age pension in the Czech Republic, source ČSÚ, *own calculations*

*Governmental laws, legislation and policies*

The dairy industry is important for many EU Member States. The agricultural significance of milk production differs considerably between countries being influenced by climatic conditions and other agricultural factors. The EU dairy market is regulated by the Common Market Organisation (CMO) for milk and milk products.

The EU milk quota system was introduced in 1984, in order to limit public expenditure on the surplus milk production and to stabilize milk prices and income of milk producers. However, the milk quota on the one hand limits milk production and, on the other hand, is stabilising milk producer prices. It may also contribute to maintaining dairy activities in less competitive regions as mountainous parts of countries.

During last years the European dairy policy has been changing and producers are allowed to be more market-oriented. The new approach of organisation CMO together with European Commission contributed to development of new European regulations and to reductions of intervention prices.

The Luxembourg Agreement in 06/2003 declared that the milk quota system will come to end in 2015. The Common Agricultural Policy (CAP) of the European Commission endorsed the proposal of milk quota abolition and recommended to increase of quota by 1% annually from 2009 to 2013 to allow a smooth transition of the milk sector to the end of quotas. [76]

## 5.2.3   Analyzing Competitive Forces

*Potential new entrants*

As was pointed out in Clause 3.4.2 of the literature overview, new entrants into an industry have to face entering barriers. On one hand dairy industry is characterized by decreasing trend in milk consumption in the Czech Republic. This drop in purchase means a higher struggle about costumers. Already established companies have an advantage to attract customers because their products are known on the market. On the other hand, Czechs consume constantly more products with higher value added as cheese (see Figure 4.7). Thus, potential cheese manufactures would face lower entering barriers than companies selling milk as a product.

Other factor determining intensity of entering barriers can be attributed to historical circumstances. After Velvet revolution in 1989, privatization of state agriculture cooperatives not only allowed rising up multiple private dairies but also initiated a great flow of foreign direct investment. In the second half of 90th of last century new companies or acquisitions captured with significant amount of capital the majority of market share. Thus, dairy industries became more concentrated. Potential entrance has to compete with big national and multinational companies.

New potential dairies entering the industry will face other particular barriers that follow:

- New entrance will not advantage economy of scale and has to operate with cost disadvantage.
- The dairy is an industry with high capital intensity. New entrance has to build plants, buy production lines or expensive dairy technologies. When opening a cheese manufacture it has to be consider long period of capital return connected with the period of cheese seasoning.
- Even if products in dairy sector are less differentiated than in other industries, potential entrance has to promote new product to create customer loyalty. Effective promotion increase costs in a great range for new entrant.
- Access to distribution channels is not an important barrier in dairy industry. There are located multiple multinational distribution chains and companies.
- Switching costs do not exist in dairy industry.

*Bargaining power of buyers*

The low differentiation of products leads to strong bargaining power of purchasers. In this context, purchasers mean distribution chains, wholesales or retailers. Multinational food chains have particularly strong bargaining power. Research of economic department CULS[4] published that price is determining factor whether to buy a product for 70 % of Czechs. In contrast to more developed economies when quality is more important than price for buyers. Czech retailers put a pressure to processing companies and forcing them to sell products for minimum price. Retailers compete against each other by pushing prices

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[4] Czech University of Life Science Prague

down as much as possible to attract customers and gain higher market share. Power of purchasers is particularly strong due to higher milk supply than demand. Final consumers have rather power to influence the amount of production than directly product prices. Dairy companies monitor current trends in product consumption and regulate their capacities. Dairy production and consumption describe in details Clauses 4.5 and 4.6.

### Threat of substitute's products

There exist few substitutes of dairy products. Soya milk or other crop extracts can only substitute animal milk. Milk substitutes are used for diets, especially when doctors diagnose allergy for lactose or gluten. However milk intolerance does not threat dairy producers because by milk allergies suffer only 0,2 % of population [57] Substitutes for butter are demanded for other reason than allergies. In contrast to butter, margarines are processed from crop oil and do not contain cholesterol. The trend of healthy food and margarines promotional boom influenced butter consumption quite radically. In the year 1989 an average person consumed 9,4 kg of butter per year and only 4 kg in 1998 and 1999. Nowadays people are returning back to include butter to their diets, with average consumption 5 kg per year [58]. The comeback of the butter could have been associated with price increase of margarines and low satisfaction of Czech consumers with margarine taste.

### Bargaining power of suppliers

Bargaining power of suppliers, especially primary milk producers, are particularly low. This low bargaining power is caused by few factors. Firstly, milk production exceeds consumption in the Czech Republic even if farmers exports 17 % production abroad. A surplus of milk leads to weakening bargaining power of primary producers. Secondly, milk producers are fragmented into approximately 2500 subjects. Interests groups such as Mleecob was established to unite primary producers and increase their bargaining power in the Czech Republic. This sales cooperation represents an interest of 300 milk producers and helps to deal with other subjects on dairy production vertical about purchasing prices. Agriculture chamber represents the second, more important, organization that tries to increase bargaining power of agriculture producers [60]. However, interest groups are less

powerful in contrast to more concentrated processing dairies and multinational distributor channels. Stronger bargaining power, it is disposed only by suppliers producing particularly high quality milk or fulfilling other conditions that are important for processing organizations (such as BIO or eco-sustainable production requirement).

### *Rivalry among competing sellers*

Rivalry among competitors can be analyzed at two levels. Rivals can be detected under the terms of entire industry or more deeply, by analyzing competitors in accordance of competitive products. The dairy industry occupies itself with production of milk and milk drinks, processing of yogurts and milk desserts, cheese and butter. For the purpose of the company Orrero, analyses are focused on cheese sub-industry only. Cheese manufacturers produce hard cheese, semi-hard cheese, soft cheese, fresh cheese or processed cheese. Czech dairies produce all or just few types of cheese. They represent competition for Orrero because its product portfolio covers also few types of cheese specified in 5.1.3.

Thus, firstly it will be analyze rivalry and its intensity among competitors producing cheese in general in the Czech Republic. Secondly, the research will be focused on competitive products of cheese Gran Moravia, the crucial product of Orrero. Gran Moravia represents only parmesan produced in the Czech Republic. The unique position of this product has been threatened by imported similar products only such as Grana Padano or Parmigiano-Reggiano.

Figures 5.7 to 5.9 demonstrate TOP 10 most favorite cheese brands consumed in the Czech Republic in 2010 (in accordance of respondents that consumed cheese in last 12 months). Data are based on marketing research published by the Zboží&Prodej- No.186 [73] Cheese types are segmented into 3 groups: proccesed cheese, natural cheese and mould cheese. The popularity of brands represents a determing factor in this analyses. In accordance to consumer preferences, it can be find out the most important rivals in the Czech cheese industry. The overview of the most important rivals is illustrated in Table 5.1.

*Selected cheese brands in the Czech market*
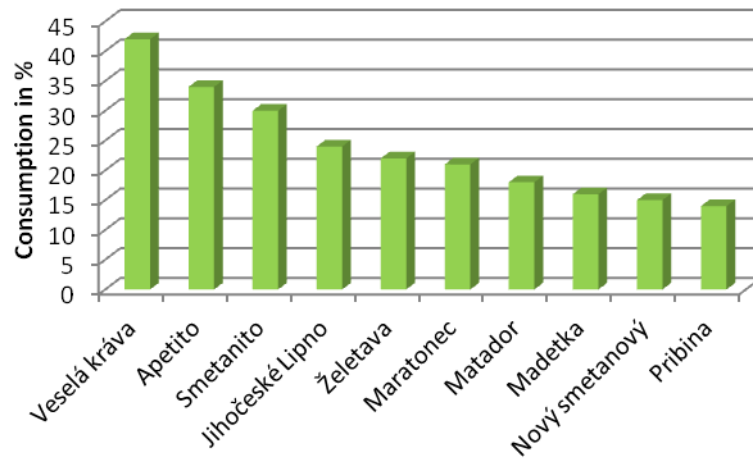


Figure 5.7       Top 10 brands of proccesed cheese consumed by Czechs in 2010, *source magazine Zboží&Prodej- No.186, own design*
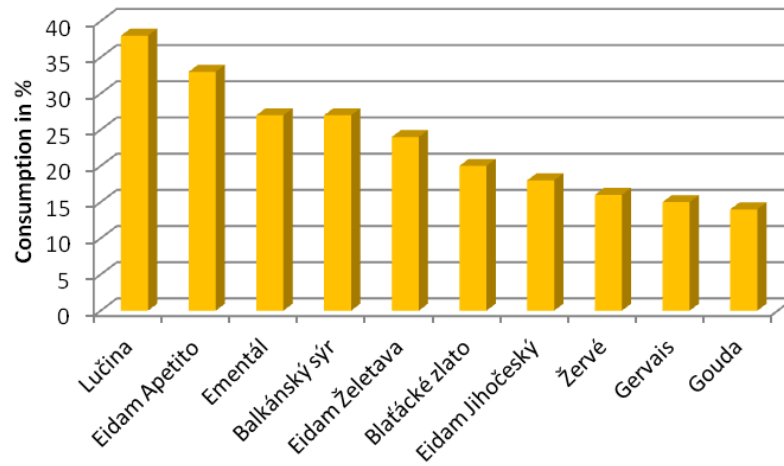
Figure 5.8    Top 10 brands of natural cheese consumed by Czechs in 2010, *source, source magazine Zboží&Prodej- No.186 own design*
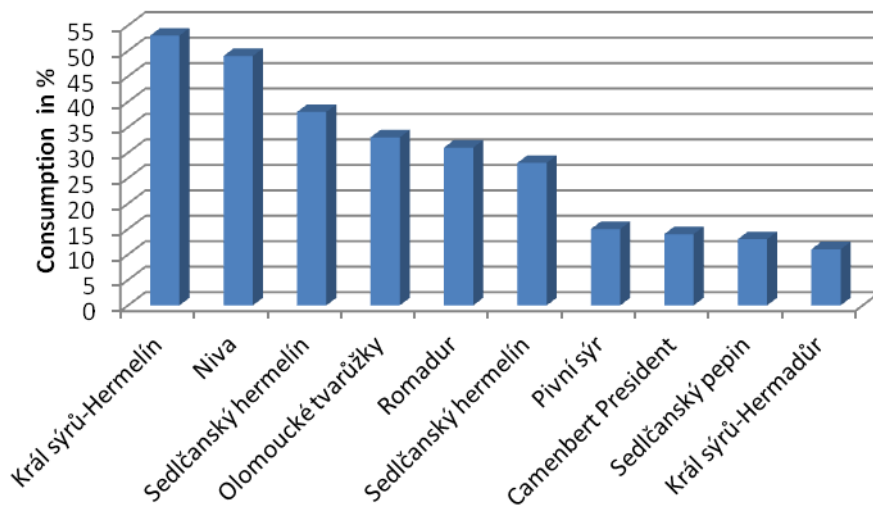


Figure 5.9    Top 10 brands of mould cheese consumed by Czechs in 2010, *source magazine source magazine Zboží&Prodej- No.186,own design*

| State of origin | Group | Subsidy company | Cheese brands on the Czech market | | Pref. Products |
|---|---|---|---|---|---|
| France 🇫🇷 | **Fromageries Bel** | *Bel Sýry Česko, a. s.* | Veselá Kráva<br>Želetava<br>Gervais<br>Smetanito | Kiri<br>Mini Babybel<br>Matador<br>Leerdammer | *7* |
| France 🇫🇷 | **Bongrain** | *Bongrain Food service ČR*<br>Povltavské mlékárny<br>Pribina<br>TPK | Sedlčanský<br>Tartare<br>Král sýrů<br>Apetito<br>Liptov | Lučina<br>Pribina<br>Maratonec<br>Javor | **11** |
| France 🇫🇷 | **Lactalis group** | *Lactalis s.r.o* | President<br>Bridel | Galbani | **1** |
| Czech Republic 🇨🇿 | **Madeta** | | *Madeta product line (Top preference only)*<br>Blaťácké zlato<br>Jihočeské Lipno<br>Romadur | Madetka<br>Jihočeský eidam | **5** |

Table 5.1      Cheese leaders on the Czech market, their brands and preferences, *own work*

Table 5.1 shows that majority of leaders of the Czech cheese market have French origin except of Madeta that has Czech owners. The table illustrates some formally Czech dairies that were acquired by multinational Groups. The Bongrain group represents a leader on Czech cheese market. Bongrain products are most preferable among Czech inhabitants. People consume 11 products from all 3 cheese categories. The most favorite are mould cheese types such as Král sýrů and Sedlčanský hermelín.  The second position is occupied by group Fromageries Bel. People evaluated their 7 products as the top preferred products. Madeta is placed on the third position with 5 preferred products. President is the strongest brand of Lactalis group and it belongs to most consumed cheese in the Czech Republic. These four companies represent strong competitors for cheese producer Orrero because their brands are well known by Czechs. The multinational concerns preempted both well-established Czech dairies and their brands such as Lučina (launched in 1881) or Král sýrů (launched in 70s). In contrast to smaller independent Czech cheese producers, the foreign dairy Groups could afford investments to expensive advertisements, especially through television. For example, TV commercial of the brand "Veselá Kráva" was the pioneer commercial for processed cheese in the Czech history. The excellent success of

this commercial boost sales and people remember the red laughing cow until nowadays. Presently the company Bel sýry Česko, a.s has a 50% share on the Czech market, by both volume and value.

The intensity of rivalry among competitors is illustrated in Table 5.2. Each of the factors has been evaluated by scale 1 to 5. The value 1 represents the strongest intensity of rivalry, value 5 the weakest intensity respectively. The table shows that majority factors were evaluated by 1 to 3. Thus, the rivalry has a strong intensity in the Czech cheese industry.

Orrero faces not only domestic rivalry but also competition from imported products. Gran Moravia represents essential product of the company and managers of the manufacture Orrero put their effort to increase company's market share through this Moravian parmesan. However, few Italian companies import their parmesan into Czech market. In total, there is imported around 140 tons of both Parmigiano-reggiano and Grana Padano to the Czech Republic every year [69].

| Factor | Stronger intensity | 1 | 2 | 3 | 4 | 5 | Weaker intensity |
|---|---|---|---|---|---|---|---|
| The growth of buyer demand | Demand grows slowly. | | | | * | | Demand grows rapidly. |
| Unity of rivals strategies | Diverse strategies | | | | * | | Similar strategies |
| Switching costs | Buyer switch costs are low | * | | | | | Buyer switch costs are high |
| Growth of rival number | The number of rivals increases | | | * | | | There are fewer than 5 sellers or so many that their moves do not impact on rivals business |
| Strategy to improve market share | Rivals are active to improve share | | * | | | | Competitive sellers move non-aggressively |
| Volume boosting tactics | Competitors are using price cuts and other weapons to boost unit volume | | * | | | | Competitors do not need to use price cuts or other weapons to increase sales |
| Size and capabilities of rivals | Rivals are equal in size and capability | | | * | | | Size and capability differs among rivals |
| Level of product differentiation | Products are standardized | * | | | | | Products are differentiated |
| Intensity of marketing tactics | Heavy advertising, often rebates | | * | | | | Low level of advertising, rarely rebates |
| Presence of multinational companies | High intensity of acquisition | * | | | | | Low intensity of acquisition |

Table 5.2     Factors determining intensity of rivalry among competitors, *own work*

Nord-Italian Company Zanetti S.p.A. represents the most distributed brand of parmesan in the Czech Republic. Grana Padano and Parmigiano-reggiano produced by Zanetti are distributed into majority of retailers such as Tesco, Billa, Globus etc. In 2010, turnover of Zanetti reached 320 million of EUR, and 54 % of its sales have been realized abroad. Hard cheese has a 70% share of total sales and the soft cheese sales represent the rest [62]. Zanetti family began to export its products to Switzerland, France and the UK after the WWII. Nowadays, their products have been shipped mainly to the European Union and East-European countries but Zanetti also enter to markets in USA, Canada, South America, Australia, Japan and other Asia countries. According to Mateo Zanetti, CEO of the company, their 7 branches have been producing 400 wheels of parmesan every day and this ranks Zanetti to number one in both as a producer and exporter of Grana Padano and Parmigiano-reggiano in Italy. Exports of parmesan labeled as Zanetti represents more than 20% share of total exports of Italian "Grana type" of cheese [63, 64].

In Czech Hypermarkets Albert, brand Galbani offers also cheese Parmagiano-reggiano that belongs to French Lactalis Group since 2006. Acquisition with Galbani turned Lactalis Group into the world's second-largest cheese company and world larges manufacture of dairy products in general. Formerly Italian company Galbani represents international concern nowadays that exports cheese all over the world. It comprises 6 branches in Europe and four sales offices in Spain, Poland, Japan and USA. In Italy, subsidiary company Egidio Galbani S.p.A has in operation 4 factories located in North Italy in order to produce both types Grana Padano and Parmigiano-reggiano. In 2010, turnover of Lactalis Group reached 14,7 billion EUR and from that value Galbani brand sold its products for 1,2 billion [62]. However, it has to be considered Lactalis and Galbani groups offer wide range of milk products in their portfolio. Cheese comprise only 36% share of total turnover (5.292 billion EUR) [66].

Czech multinational retailers such as supermarket chain Billa offer also their private labels of parmesans. There is enclosed an overview of important multinational food retail chain and their distributed parmesans in the appendix A1.

**5.3    Internal Environment Analyses**

**5.3.1    Financial Analyses**

*Asset and capital* of the company Orrero a.s has been modified since 2005. The fixed asset has decreased by 11 % since 2005 and it gain only 34% share of total assets in the year 2010. In a contrast, current assets rose by nearly 50 % during the last six years period. The growth can be attributed to increase of cheese amount that is seasoning in storehouses (item Work on progress and semi products increased by 62 % from 2005 to 2010). In 2010, Orrero a.s disposed with 719.414 million CZK of total asset. The asset of Orrero a.s is mainly covered by liabilities (76% average share in six years).
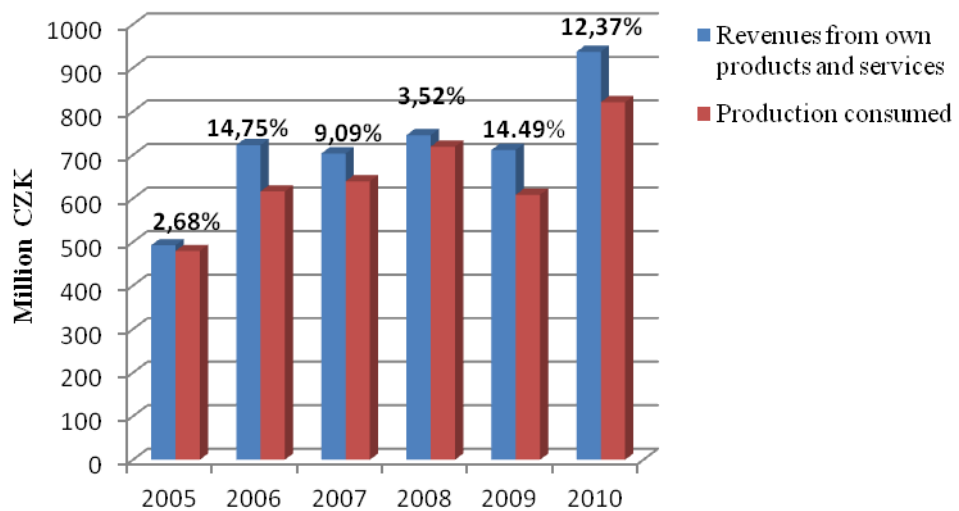


Figure 5.10    Development of item Revenue from own products and services in contrast to production costs from 2005 to 2010; source Income statements of Orrero a.s, *own calculations*

In Orrero a.s, the revenues of merchandise have increased by 82 % since 2005. *Revenues from own products and services* have risen also, by 52 % since the same period and these revenues represent the biggest share of total sales in Orrero a.s. Figure 5.10 shows development of revenues from own products and services from 2005 to 2010 in contrast to its costs. In years 2005 and 2010 the Production consumed almost reach the level of revenues. Positively, other years the revenues and costs difference comprise around 100 million CZK. The chart shows fluctuation in revenues from own products and

services as well as production costs. The difference varies between these two items each year. The percentage value above each column represents difference between revenues and costs. Thus, presently company does not favor advantage of economies of scale because there is present some visible trend of production growth and decrease of costs in the same time

*Earnings after taxes* are illustrated by Figure 5.11. The chart shows that in the years 2006 and 2008 the company operated with loss. Positively, the year 2010 shows quadruple increase of profit to 65.048 million CZK.
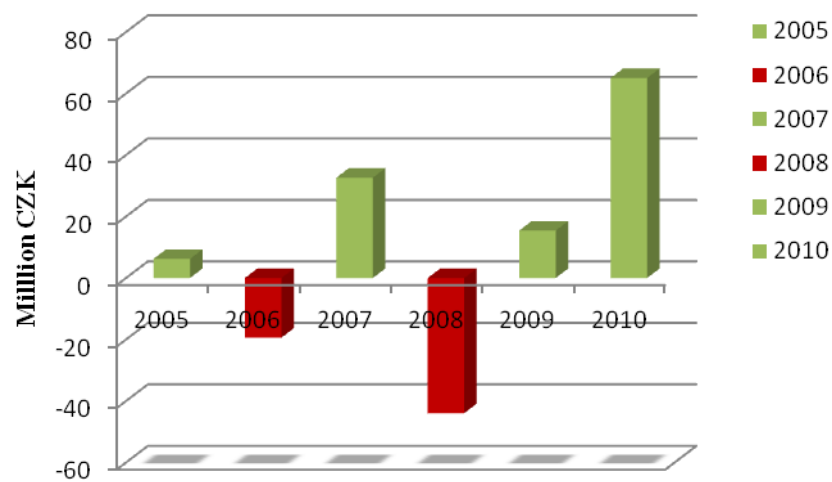


Figure 5.11 Earnings after tax from ordinary activity from 2005 to 2010, source Income statements of Orrero a.s, *own calculations*

For the evaluation of financial situation of Orrero a.s., the basic categories of financial ratios are selected such as rentability, leverage, liquidity and activity ratios. Than Altman Z-score model of predicting bankruptcy will be applied.

Rentability ratios are basic and in the same time key factors of the company profitability. Generally, as higher values of rentability are, as better for a company. The theses will examine two selected ratios of rentability ROA (Return on Equity) and ROS (Return on Sales).

➤ *Rentability of total assets ROA (Return on Equity)*

| Year | EAT (th. CZK) | Total assets (th. CZK) | ROA |
|------|---------------|------------------------|-----|
| **2005** | 6212 | 555746 | **0.0112** |
| **2006** | -19398 | 496540 | **-0.0391** |
| **2007** | 32627 | 619082 | **0.0527** |
| **2008** | -43941 | 514152 | **-0.0855** |
| **2009** | 15427 | 481854 | **0.0320** |
| **2010** | 65048 | 719514 | **0.0904** |

Table 5.3      Rentability of total assets of the company Orrero a.s (2005-2010),

*own calculations*

Table 5.3 shows lower values of ROA than 10,5 % departmental average (data source ČSÚ) during observing time period from 2005 to 2010.  Orrero managed badly with negative net revenues in years 2006 and 2008 and so the rentability reached negative values as well. However, the year 2010 shows improvements of the company financial situation when rentability of assets reached its maximum 9,04 %.

➢ *Rentability of sales ROS (Return on sales)*

The table 5.4 demonstrates that rentability of sales does not reach high values. Minus values of ROS are caused by negative earnings in 2006 and 2010. Only the year 2007 rentability of sales reached higher value of 4,15 % than departmental average of 3,54 %. Positively, in 2010 the sales rentability reached six years maximum of 6,27%.

| Year | EAT (th. CZK) | Total Sales(th. CZK) | ROS |
|------|---------------|----------------------|-----|
| **2005** | 6212 | 554565 | 0,0112 |
| **2006** | -19398 | 685306 | -0,0283 |
| **2007** | 32627 | 786534 | 0,0415 |
| **2008** | -43941 | 781797 | -0,0562 |
| **2009** | 15427 | 753372 | 0,0205 |
| **2010** | 65048 | 1038154 | 0,0627 |

Table 5.4      Rentability of sales of the company Orrero a.s, (2005-2010),

*own calculations*

Leverage ratios represent other method to examine financial health of a company. Leverage of a company relates to the dept amount analysis with respect to its balance sheet. Leverage analyses try to measure the relation between liabilities and assets to find optimal financial structure of a company.

> ➤ *Debt Ratio*

The leverage of the company is very high during the observed period as indicated in Table 5.6. Debt proportion to the company's asset is approximately 76 % in contrast to 45 - 49 % of the sectoral average. The highest debt around 81 % to asset was measured in 2008. The high level of leverage may be unfavorable when asking a bank loan. Sometimes, bank may refuse to provide this loan to a company or the interest rate will be high, even if the company has ability to pay. However, the year 2010 shows decrease of debts by 10 % from previous year to 67 %. The biggest share of liabilities is represented by bank loans and financial accommodations (63% share in the year 2010).

| Year | Leverage (th. CZK) | Total assets (th. CZK) | Debt Ratio |
|------|------|------|------|
| 2005 | 426119 | 555746 | 0,767 |
| 2006 | 379108 | 496540 | 0,764 |
| 2007 | 469094 | 619082 | 0,758 |
| 2008 | 414335 | 514152 | 0,806 |
| 2009 | 366849 | 481854 | 0,761 |
| 2010 | 487542 | 719514 | 0,678 |

Table 5.5    The proportion of Debt on Balance sheet from 2005 to 2010,

*own calculation*

> ➤ *Interest coverage ratio*

It measures how easily a company can pay interest on outstanding debt. If the coverage ratio is equal to 1, it means that all profit covers expenses for annual interest. The bank standard is moving around value 3, well positioned companies reach around values 6 to 8. Table 5.6 illustrates interest coverage of the company Orrero a.s during the observed period.  In 2006 and 2008 years, the company operated in the loss, so the company had difficulties to cover its interests. Other years the interest cover ratio reached low values from 1 to 2. However the year 2010 shows significant improvements where interest coverage ratio rocket to maximum value 5,412.

| Year | EBIT (th.CZK) | Interest expenses (th.CZK) | Interest Coverage |
|---|---|---|---|
| **2005** | 9729 | 8894 | 1,094 |
| **2006** | -19131 | 11647 | -1,643 |
| **2007** | 33964 | 16854 | 2,015 |
| **2008** | -54130 | 20308 | -2,665 |
| **2009** | 19265 | 13220 | 1,457 |
| **2010** | 80547 | 14883 | 5,412 |

Table 5.6    Interest coverage ratio of the company Orrero a.s, from 2005 to 2010,
*own calculation*

Liquidity ratios measure ability of a company to pay off its short-terms debts obligations. Liquidity is immediate ability to convert its asset to monetary units in order to pay liabilities. Ratios are distinguished into three levels of liquidity: Cash position ratio, Quick asset ratio and Current ratio. For the purposes of the thesis it is examined Current ratio only because it is consider as most general indicator of the company financial situation.

➢ *Current ratio*

It shows how much times current assets cover short-term payable of the company.  The optimum is considered as value from 1,8 to 2,5 of current ratio. However, the type of business has to be taken in account. Higher value of current ratio may have those businesses with high inventory and longer period of maturity date. Orrero a.s belongs to manufactures that dispose by great value of inventory (42 % of in inventory share to current assets) because of long period of Gran Moravia seasoning. Table 5.7 shows that the company Orrero a.s is able to pay off its short term payables. Current ratio gain high values during period from 2005 to 2008. This could mean ineffective distribution of financial tools in current assets. Positively, current ratio values get close to optimality in the last two years 2009 and 2010.

| Year | Current Assets (th.CZK) | Short-term payables (th.CZK) | Current ratio |
|------|-------------------------|------------------------------|---------------|
| 2005 | 283814 | 64837 | 4,377 |
| 2006 | 218296 | 56323 | 3,876 |
| 2007 | 356715 | 71906 | 4,961 |
| 2008 | 242358 | 80568 | 3,008 |
| 2009 | 266206 | 126017 | 2,113 |
| 2010 | 425037 | 149163 | 2,850 |

Table 5.7     Current ratio of liquidity of the company Orrero a.s, from 2005 to 2010, *own calculation*

Activity ratios measure the efficiency of the company in using its resource. It indicates how rapidly the company converts various accounts into cash or sales.

➢ *Total assets turnover*

This indicator shows how many times assets are turnover in one year. Optimal values are fixed from 1,6 to 3 in general. For the sector, total assets turnover average gain around 1,4. The table demonstrates that values reach slightly below optimum value range but correspond with sectoral average (except the year 2005 when asset was not turned even one time). This indicates that Orrero a.s operates with its assets on average.

| Year | Total Sales (th. CZK) | Total assets (th. CZK) | Total assets Turnover |
|------|-----------------------|------------------------|-----------------------|
| 2005 | 554565 | 555746 | 0,998 |
| 2006 | 685306 | 496540 | 1,380 |
| 2007 | 786534 | 619082 | 1,272 |
| 2008 | 781797 | 514152 | 1,521 |
| 2009 | 753372 | 481854 | 1,564 |
| 2010 | 1038154 | 719514 | 1,442 |

Table 5.8     Total asset turnover of Orrero a.s from 2005 to 2010, *own calculation*

➢ *Altman Z-score model*

The Altman model is described in Clause 3.5.1. Table 5.9 shows results computed in accordance to the Z-score formula. Source data for calculation of Z values are based on

Balance sheets and Income statements of Orrero a.s from 2005 to 2010 years [67]. Then, Figure 5.12 illustrates these Z values in time. The chart indicates that the company operate in the gray zone. In 2005 and 2007 years, Z values went under the red line (under value 1,29) to the Bankruptcy zone due to annual loss. Other years the Z-scores reached the Grey zone only and any of the Z value has ever get close to the upper red line (above value 2,9).

| | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | Coef. |
|---|---|---|---|---|---|---|---|
| $T_1$ | 0,3940 | 0,3262 | 0,4601 | 0,3147 | 0,2909 | 0,3835 | 0,012 |
| $T_2$ | 0,0112 | -0,0391 | 0,0527 | -0,0855 | 0,3202 | 0,0904 | 0,014 |
| $T_3$ | 0,0175 | -0,0385 | 0,0549 | -0,1053 | 0,0400 | 0,1120 | 0,033 |
| $T_4$ | 0,2960 | 0,3056 | 0,3172 | 0,2379 | 0,3107 | 0,4749 | 0,006 |
| $T_5$ | 0,9979 | 1,3822 | 1,2705 | 1,5206 | 1,5635 | 1,4431 | 0,999 |
| Z | 1.0041 | 1.3848 | 1.2792 | 1.5170 | 1.5731 | 1.4541 | |

Table 5.9    Z-score model of financial well-being of the company (2005-2010),
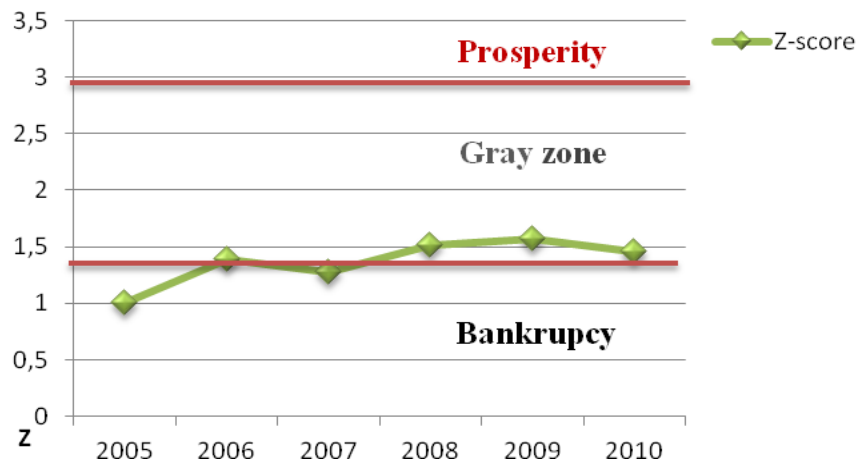
*own calculations*



Figure 5.12    Altman's Z-score model of company well-being from 2005 to 2010,

*own calculations*

### 5.3.2  Product Portfolio Analyses

The Clause analyses product range manufactured by the company Orerro a.s. Following types of cheese manufactured by the Company will be examined:

> *Gran Moravia (all variants - industrially packed, weighted, grated, Tochetti)*
> *Verena -Brazzale*
> *Provolone - Brazzale (Dolce and Piccante)*

Product portfolio listed above is intended for both, foreign and Czech market. However, this analysis will focus on Czech market only in order to fulfill the objectives of the thesis (to improve market share of Orrero a.s in the Czech Republic). Presented Portfolio analysis is based on the Boston Consulting Group (BCG) Matrix. The BCG matrix graphically portrays differences among products in terms of industry growth rate and relative market share position (for BCG theoretical specification see Clause 3.5.3).

From broad point of view, Verena and Provolone might be compared with all kinds of natural cheese and so Fromageries Bel, Borgain, Lactalis and Madeta would be the biggest competitors of Orrero in the Czech Republic. However Orrero a.s. produces specific types of Italian cheese that are not produced by anyone else in the Czech Republic. Thus, the broad assumption is not suitable for Orrero portfolio analyses because it would generate too many general conclusions. This analysis investigates more specifically the types of cheese produced by Orrero. The following types of cheese are distinguished - Parmesan type, Asiago type (similar to Verena) and Provolone type of cheese.

The BCG matrix requires detailed information about competitors' products to know market share related to the biggest competitor. Thus, for the research purpose, it was requested the most important rivals for important data (Zanetti, Galbani, Agriform). Unluckily, crucial companies do not want to disclose financial information by segments or they are not in favor releasing internal information on public.

Nevertheless, it is estimated below rough indicators of Orrero a.s market share. Here, the market share is represented by ratio of the total imports of single types of cheese and Orrero sales in the Czech Republic. Asiago cheese, Grana Padano, Provolone (two types) and Parmagiano-reggiano belongs to PDO[5]. It follows that imports of these cheese represents only competition for Orrero portfolio because any equivalents have been not produced in the Czech Republic yet.

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[5] Protected Designation of Origin - product can be considered as real by the European law if it is
  produced in its specific origin area.

Estimates are based on multiple researches of the Czech Ministry of Agriculture, *source* [69]; statistics of *ČSÚ*, Analyses of the impact market structure in Czech milk commodity chain [70]; internal information of Orrero a.s., and own market research concerning average prices of equivalent products in terms of product portfolio of Orrero.

| Products | Sales (kg) | Price (kg) | Sales (mil. CZK) | Market share Orerro a.s |
|---|---|---|---|---|
| **Gran Moravia** | 168000 | 340,2 | 57,154 | **0,41** |
| Tot. imported Parmesans | 172893 | 481,6 | 83,265 | |
| **Verena Brazzale** | 12000 | 199 | 2,388 | **0,57** |
| Tot. Imported Asiago type of cheese | 5500 | 330 | 0,990 | |
| **Provolone Brazzale** | 6000 | 275 | 1,650 | **0,66** |
| Tot. Imported Provolone type of cheese | 2500 | 330 | 0,825 | |

Table 5.10    Estimation of the market share of Orrero a.s in terms of its portfolio products in the Czech Republic, *own calculations*

First column of table shows the total volume of imported Grana type and Parmigiano-reggiano to the Czech Republic (data from 2009) and sales volumes of single products of Orrero. Then, it was estimated the Industrial Producers Price of imported parmesan. Industrial producer price is based on the market research of several types of parmesan brands (in terms of average price per 100g) offered by the most important retailer chains in Prague. (For details related to retailer's price see Apendix A1). These retailer prices were multiplied by coefficient 0,7. This coefficient was calculated by difference of consumer and industrial producer prices of cheese Edam. Orrero sells Verena and Provolone (Brazzale) in company shops La Formageria only so the industrial price is assumed to approach to consumer price. It follows that it is computed also with consumer prices in terms of imports of Asiago type of cheese and Provolone type. Results are illustrated in the Table 5.10.

Figure 5.10 illustrates BCG matrix of Orrero product portfolio. Cheese Gran Moravia is allocated in Question marks quadrant. Based on internal information of Orrero,

it is assumed higher, 20 % growth rate of the industry with parmesan type of cheese in the Czech Republic in contrast to 9,7% growth rate of cheese industry as a whole (2010). It follows that presently the parmesan industry is very attractive. Gran Moravia itself represents the most important product in the portfolio generating around 90 % of revenues from its own products. Gran Moravia has huge potential to become the Star in the Czech market. The market share of Gran Moravia reaches to 41% in relation to total imports of parmesans to the Czech Republic.

Total imports comprise multiple organizations selling foreign parmesans on the Czech market and Orrero managers should create effective strategies to penetrate to the market even more. It requires widening of distribution channels, improving product quality and employing effective marketing strategies to attract new customers. Present strategies of Orrero and recommendations for improvements are summarized in the following Chapter 6.

Verena and Provolone are located in the Stars quadrant in terms of total imports of these two types of cheese. It is assumed 10% growth rate of industry in this cheese category, similar to growth of cheese industry. Positively, data shows that it is sold more products of these two types of cheese than it is actually imported. However, there is low market size of Provolone and Asiago type of cheese in the Czech Republic and revenues for Provolone and Verena are also low. Strategically, it is necessary to increase interest of consumer about these two types of cheese. It requires investments to promotion campaigns and improvements in distribution channels.
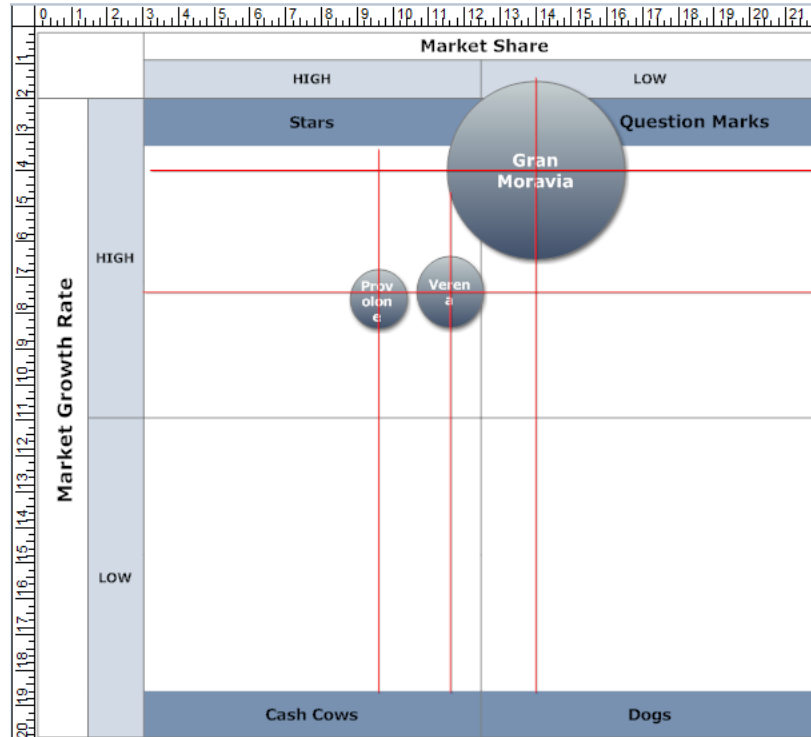
Figure 5.13     BCG matrix of product portfolio of Orrero a.s in the Czech market, *own work*

It has to be taken into account the absence of accurate input information that would provide more precise results (concerning relative market share).  Moreover BCG matrix has some limitation. The matrix does not reflect whether or not product market share and industries are growing over time. Thus, it does not have validity for future time period and it has to be reconstructed in regular intervals. Presently, unfavorable outlook of economical situation in the European Union indicates lower cheese industry growth rate in the following years. The EU cheese industry as a whole is expected to growth only by 0,3 % annually in the following years. Consumers may face also income fall, unemployment and rise of the prices for basic goods such as food and energies. Parmesan types of cheese and other specific cheese with higher value added would be the first items restricted in budget of consumers during expected crisis. Thus, it should be considered lower market growth while constructing BCG matrix for the following years.

## 6. ANALYSES AND ASSESSMENT OF CHEESE MARKET PERSPECTIVES IN CZECH REPUBLIC

### 6.1 Customer Survey - Satisfaction and Brand Loyalty

Customer surveys represent the key tool while analyzing customer satisfaction and purchasing behavior. The importance of customer satisfaction measurements is explained in Clause 3.6.4. Here, the theoretical part is supplied by the author of thesis with two types of customer surveys, qualitative and quantitative. The qualitative research aims to investigate preferences of Czech consumers in terms of parmesan types of cheese. "What taste do you prefer the most" represents the leading question of the research in order to examine consumer taste preferences. Spontaneous conversation is a core stone for hypotheses formulation. The quantitative research is based on statistical evaluation of the questionnaire. The questions were carefully selected in order to analyze customer satisfaction.

### 6.1.1 Qualitative Research of Customer Preferences

The Group interview represents a basic method of the qualitative research. Five groups of respondents consisting of 4 members were selected. Respondents were selected un-randomly by the interviewer in Prague because random selection of respondents requires financial reward. Two groups comprise of students of CULS[6], two groups are represented by inhabitants of the Prague district Suchdol and one group consisting of employees of the Klokner's Research Institute CTU[7]. Interviews were performed separately within the groups where the discussion was conducted by the moderator (by author of thesis). The moderator directed the talking topics and gave inputs for discussion. The group interviews had informal character and respondents interacted spontaneous. Information was fixed by written word, selected crucial information and put away irrelevant data.

The survey is based on degustation of four types of parmesan cheese:

1. *Gran Moravia* - industrially packed, purchased in the supermarket Billa (Prague), size of packaging 100g, research name *"Gran Moravia I"*

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[6] Czech University of Life Science Prague
[7] Czech Technical University in Prague, Klokner Institute (research in buildings, bridges and construction materials)

2. ***Parmigiano Reggiano Conad -*** seasoning age 24 months, industrially packed, 1 kg, purchased in supermarket Conad, (Parma, Italy); research name *"Parmesan Conad"*

3. ***Parmigiano-Reggiano Galbani*** - industrially packed, purchased in the hypermarket Albert (Prague), research name *"Parmesan Galbani"*

4. ***Gran Moravia*** - seasoning age 18 month, paper packaging, purchased in Farmer's market "Vítězné náměstí" (Prague 6), weighed sale; research name *"Gran Moravia II"*.

While tasting, respondents knew just information that there are four types of "parmesan" and that there is Gran Moravia cheese present. Each type of cheese was labeled by a number from 1 to 4. Table 5.9 sums up the most important and repeating reactions on examined products.

Gran Moravia II was most preferred cheese in all groups, by price and by taste. Most of the respondents confused Gran Moravia II with Parmesan Conad from Italy (by view and by taste). Similarly, most of the respondents found difficulties to differentiate taste of these two types of cheese. However, majority tended to prefer Gran Moravia II because the Conad parmesan was classified as a cheese with taste to much strong (even if respondents liked it similarly). Parmesan Galbani and Gran Moravia do not taste as parmesan, in accordance to majority of respondent. Gran Moravia I was evaluated as the less preferable cheese. Surprisingly, two respondents preferred taste of Gran Moravia I the most. These respondents belongs to the age structure more than 70 years and do not have knowledge about parmesan type of cheese. These senior respondents find the taste of other parmesans too much intensive.

Interestingly, when respondents got the information that one of the parmesan's samples is original parmesan from Parma, they had competed to recognize the original parmesan. Automatically all respondents associated that parmesan from Parma should taste the best. This corresponding behavior of all respondents can be generalized that Czech consumers tend to prefer the original parmesan just for the fact that it originates in Italy (not for the taste). To support the hypothesis, when respondents were informed about identity of all types of cheese, respondents in all groups tasted these two controversial types of cheese again. One member in 3 groups changed the opinion about the cheese preferences and claims that the best cheese is Parmesan Conad. Oppositely, when

respondents tasted two types of industrial packed cheese (the less tasty according to respondents), few of them claimed that it is Gran Moravia product. This matching of Czech product to cheese category with the lowest quality indicates lower reputation of Czech cheeses.

| Type of the cheese | Repeated Reaction on a product |
|---|---|
| Gran Moravia I | **Color view characteristics** "too much white" "doesn't seem like parmesan"<br>**Taste:** "without taste", "too much soft", "it is Gouda", "unsatisfied - taste is not rich", "it taste like Czech edam", "Czech cheese"<br>**Design of packaging**: "infantile, more for children", "chaotic", "green colour means spoiled", "color is not good" "what means ecosostenibile?"<br>**Price**: "quality do not correspond to price", "too much expensive" |
| Parmesan Conad | **Color view characteristics**: "intensive color", "visible grain", "the best color"<br>**Taste**: "the most intensive (maybe even too much)", "very good", "concentrated flavor", "break on tough", "the best for cooking"<br>**Design of packaging:** "not interesting" "it looks cheap", "normal"<br>**Price –** not evaluated (is not available on Czech market) |
| Parmesan Galbani | **Color and**: "color is not white but also not intensive"<br>**Taste**: "without taste", "It is not good for cooking", "It taste like better gouda", "Czech cheese", "unsatisfied taste"<br>**Design of packaging:** "it looks luxury", "reminds Italy", "very nice", "very satisfied"<br>**Price:** "Price does not correspond with quality" |
| Gran Moravia II | **Color and view characteristics**: "intensive color", **"**nice grain structure", "dark color"<br>**Taste:** "this is original Italian parmesan", "the best cheese here", "very good", "sophisticated taste", "intensive, but in the same time soft taste, it breaks on tongue"<br>**Design of packaging:** "paper packaging, maybe better than plastic"<br>**Price**: "It is expensive, but price correspond with quality", "good price for parmesan" |

Table 6.1     Consumer preferences and repeated reactions on the four types of cheese, *own work*

### 6.1.2 Quantitative Research of Customer Satisfaction

*Collection of data*

Design of packaging was criticized by all groups predominantly in terms of Gran Moravia I. The green color associated unhealthy or spoiled food in 4 groups from 5. Some respondents claim that the parmesan should be connected with luxury and Italian traditions, not with animations related rather to children customers. Majority of the respondents criticized the word "ecosostenible" because they did not understand the meaning and letters were too much undersized. Some of them suggested replacing this Italian word for English catchword similar to "number 1 in Italia" from the competitor Galbani.

The fact that the cheese is produced in order to fulfill eco-sustainable requirements was ignored in three groups from five. Only two groups, consisting from CULS students, appreciated the eco-sustainability and they were interested about further details. Other groups stated that eco-sustainability does not influence their preferences and the taste is the most important factor. Thus, the following survey shows that common Czech consumer is not interested in eco-sustainability but the quality and luxury packaging stand on the first place.

Firstly, it was necessary to decide which locality would be selected for collection of data to have information for the analysis of consumers' satisfaction of Gran Moravia cheese. An alternative was to contact customers in selected supermarkets and ask them for completing the questionnaire. The customers interested in the cheese Gran Moravia could be contacted near the shelf with cheeses and they might answer the questionnaire. As only few people are commonly planning to buy the parmesan, it might be rather difficult to obtain required information.

Therefore, the author of the thesis has decided to try to contact customers during the farmer markets which take place in Vítězné náměstí, Prague 6, on Saturdays for more than one year. The private companies from different Bohemian rural regions come here regularly to sell their products. It may be possible to find here stands with fish, bakery or dairy products, with smoked products and also cheese. The customer may buy here French cheese, Holland cheese and also cheese made by company Orrero which are sold at

different stands. It should be point out that the stand with Orrero butter and cheese is regularly in the centre of interest.

To be polite, the sellers of stand with Orrero products have been asked for their permission that the author of thesis will contact their customers and try to complete with them one page questionnaire. Therefore, when a randomly selected customer of Gran Moravia cheese finished the shopping, he (she) was asked for a little loss of time and for answering questions of questionnaire.

Most of costumers have agreed to complete 9 questions focused on information needed for assessment of customer satisfaction. It may be said that most customers where very polite and trying to co-operate. It is clear that some customers were in a hurry or they did not want to lose their time. They were more co-operating during morning while with approaching midday they were less willing to spend their time. Some customers wanted to give some advice what is missing in the questionnaire or discuss generally about the quality of cheese production in the Czech Republic and imported types of cheese from abroad.

For having 100 completed questionnaires, it was necessary to make two visits of the market. The results of analysis of selected answers are given in the following text.

In interview participated 60 women and 40 men, their age composition is illustrated in Fig. 6.1.
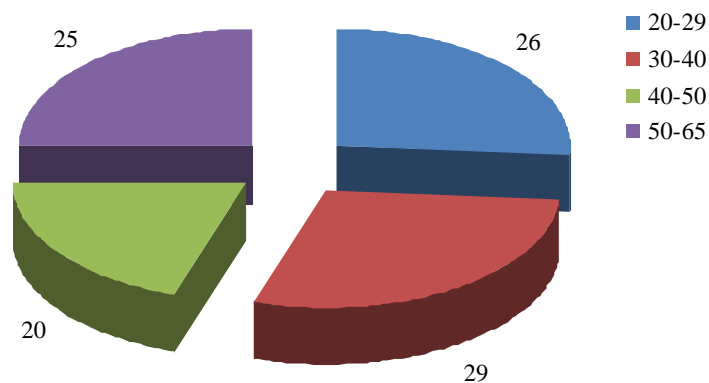


Figure 6.1    Classification of customers with respect to their age, *own study*

The period in which customers are used to buy the Gran Moravia cheese is illustrated in Fig. 6.2. About 15 % of customers are buying the Gran Moravia cheese for

more than 3 years, 29 % of them from 1 to 3 years, 17 % from 0,5 to 1 year, 19 % less than half year and 20 % of customers have made their first experience.
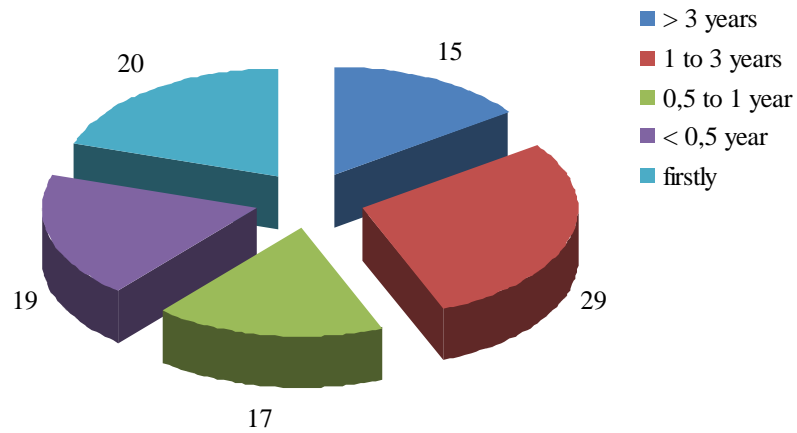


Figure 6.2        Shopping duration, *own study*

The shopping frequency is analyzed in Fig. 6.3. About 20 % of customers are used to buy the Gran Moravia cheese more than once per week, 10 % once per week, 25 % once per 14 days, 35 % once per month and 20 % of customers have made their first experience.
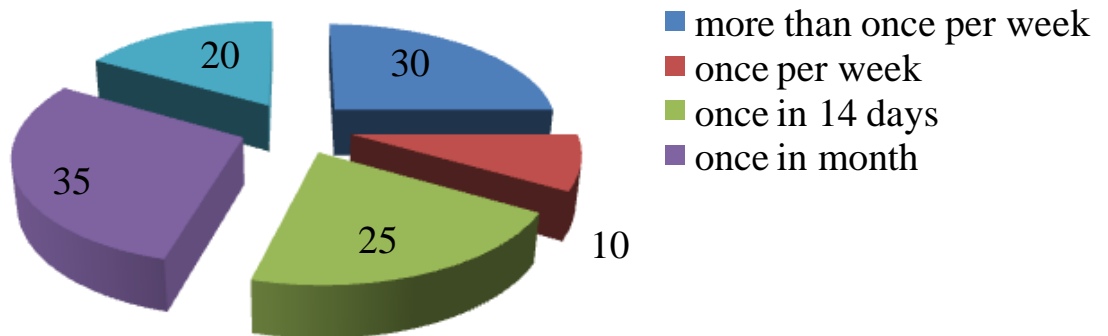


Figure 6.3        Shopping frequency, *own study*

The analysis of Gran Moravia cheese is shown in Figure 6.4. There is illustrated the overall consumers satisfaction with Gran Moravia cheese, with its price and taste and its availability in Prague as weighted cheese (non-industrially packed).
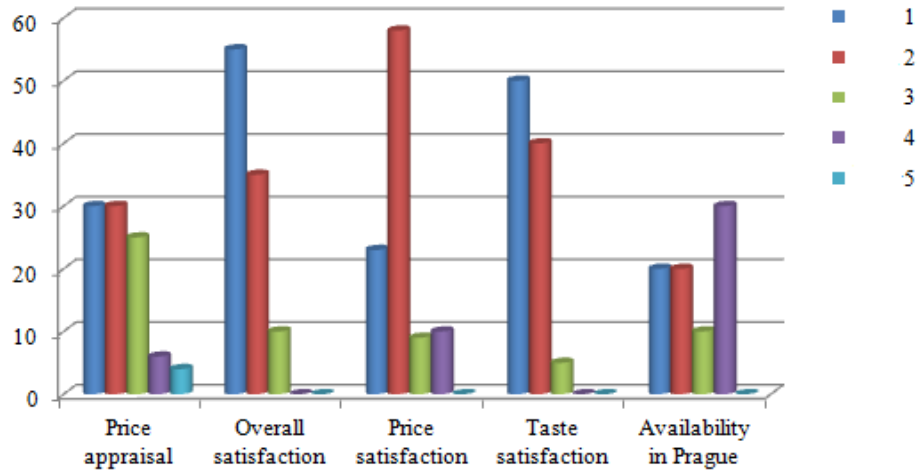


Figure 6.4     Assessment of satisfaction of Gran Moravia cheese by consumers, *own study*

Some experience with Gran Moravia cheese industrially packed for supermarkets have made 35 % of costumers. From them 40 % were satisfied, 20 % non-satisfied and 40 % completely non-satisfied.
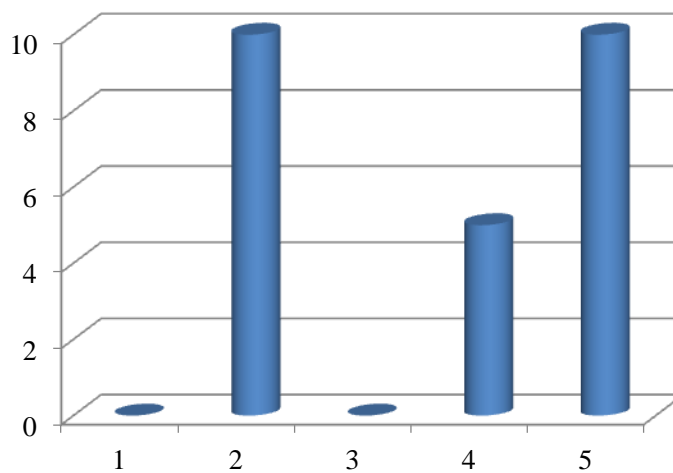


Figure 6.5 Satisfaction with industrially packed cheese, *own study*

Satisfaction can be analyzed by frequencies but also by descriptive statistics. Table 6.2 shows selected averages of respondent's replays. Selected questions have 1 as a minimum and 5 as a maximum. Costumers' satisfaction is high when the average tends to value 1. Oppositely customers are dissatisfied when the average inclines to value 5. The table shows that customers were sorted out according to gender. Customers can be split up also by age categories or by both characteristics. In the appendix, there is illustrated satisfaction in terms of age categories.

Costumers are satisfied the most with taste of Gran Moravia where women are satisfied slightly more than men. The overall satisfaction is very high. Male respondents are very satisfied when woman incline to be quite satisfied. Customers are quite satisfied with the price of Gran Moravia (average value 2 for male; value 2,18 for female). The availability of the weighted cheese Gran Moravia is evaluated worse by both genders. Male respondents find it quit difficult to buy weighted Gran Moravia (value 3,17). Women are quite satisfied with cheese availability (value 2,25). The most unsatisfied are both genders with quality of industrial packed Gran Moravia that are available in food retail chains. Men are very unsatisfied with this cheese, as the result shows the value 5. Women are satisfied more with the quality of the industrially packed cheese but the value of 3,25 is also not so favorable.

The customer loyalty is represented by the shopping duration. When costumers buy cheese for period more than 3 years, it represents the best result where number 1 was assigned. When costumers answer that they have bought it for the first time today, the result is evaluated by number 5. The table shows that costumers going to farmer market are quite loyal to Gran Moravia and men are more loyal than women. However, there is a challenge for Orrero to further improvements of customer's loyalty. The table shows that shopping frequency of purchasing Gran Moravia reach high values. This means that there is a long time period when the customers purchase the cheese again. Both genders buy Gran Moravia once a month or more than once a month on average. The research shows that the most loyal are customers in the age category from 50 to 60 years (the value reach 2,60 on average). The same age category is also the most overall satisfied with the cheese. For details see appendix, table A.1

| Descriptive Statistics | | N | Mean |
|---|---|---|---|
| **Female** Shopping duration | | 60 | 2,83 |
| Shopping frequency | | 60 | 4,42 |
| Price appraisal(competitors) | | 60 | 2,42 |
| Overall Satisfaction | | 45 | 1,56 |
| Price Satisfaction | | 55 | 2,18 |
| Taste Satisfaction | | 50 | 1,70 |
| Availability Satisfaction | | 40 | 2,25 |
| Satisfaction with Industrially packed GM | | 20 | 3,25 |

| Descriptive Statistics | | N | Mean |
|---|---|---|---|
| **Male** Shopping Duration | | 30 | 2,00 |
| Shopping frequency | | 40 | 4,50 |
| Price appraisal(competitors) | | 30 | 2,17 |
| Overall Satisfaction | | 30 | 1,17 |
| Price Satisfaction | | 40 | 2,00 |
| Taste Satisfaction | | 40 | 1,38 |
| Availability Satisfaction | | 30 | 3,17 |
| Satisfaction with Industrially packed GM | | 15 | 5,00 |

Table 6.2      Average customer satisfaction sorted by gender, *own calculations*

Until this point, it was analyzed the frequencies and descriptive methods to determine customer satisfaction and loyalty. Further, in the research it is a necessary to employee statistical measurement of the relationship between these variables. Correlation coefficients are used to determine these relationships. The values of correlation coefficient may be in a range from (-1) to 1. When the coefficient inclines to value 1, there is present stronger linear dependence between variables (value -1 undirected linear dependence respectively).  The detailed Correlation table is illustrated in Appendix, table A3.  This table demonstrates all relations between all variables at both $\alpha = 0,01$ and $\alpha = 0,05$ significance levels.  The interpretation is as follows.

It is determined that overall satisfaction with Gran Moravia cheese is dependent variable and other variables represent independent variables. Table 6.3 shows that three variables fulfill significance level: the price appraisal in comparison to competitive brands, the price satisfaction and the taste satisfaction. Overall satisfaction depends very strongly on satisfaction with the taste of Gran Moravia, less strongly on price appraisal relatively to competitive brands and shopping duration. There was detected also dependence of overall satisfaction to price satisfaction with Gran Moravia.

These dependence relationships should be important for shaping the strategy of the company Orrero. People are aware of the competitor prices and they are more satisfied as

Gran Moravia is priced lower relatively to competitor's parmesans. However, taste is crucial factor of purchasing the product. Thus, it may be assumed that the overall satisfaction will growth, even if managers of Orrero may decide to slightly increase the price for the cheese, under assumption that the managers will be rather more concentrated on quality issues.

| | | Shopping duration | Shopping frequency | Price appraisal | Price satisfaction | Taste satisfaction |
|---|---|---|---|---|---|---|
| **Overall Satisfaction** | Pearson Correlation | **0,633**[**] | 0,051 | **0,600**[**] | **0,509**[**] | **0,847**[**] |
| | Sig. (2-tailed) | 0,001 | 0,663 | 0,000 | 0,000 | 0,000 |
| | *N* | 75 | 75 | 65 | 75 | 75 |

**Correlation is significant at level $\alpha = 0.01$

Table 6.3        Dependence of overall satisfaction to selected variables, *own calculation*

Furthermore, correlation detected strong dependence of shopping duration in terms of shopping frequency (see table 6.4). Specifically, as much loyal to Gran Moravia the costumer is, as much often the product is purchased. Thus it is extremely important to create suitable strategies supporting customer loyalty.

| | | Shopping Frequency |
|---|---|---|
| **Shopping duration** | Pearson Correlation | **0,632**[**] |
| | Sig. (2-tailed) | 0,000 |
| | N | 90 |

**Correlation is significant at level $\alpha = 0.01$

Table 6.4        Loyalty of costumer in terms of shopping frequency, *own calculations*

## 6.2        Analyses of current business strategies and discussion

The competitive advantage is the essential for every business. Differentiation strategy, low cost strategy, focus strategy, preempted strategy and synergy represent the crucial tools to

reach sustainable competitive advantage. Orrero managers have selected few of these strategies.

From the corporate point of view, the company Orrero a.s is built on the *low-cost strategy*. Orrero, as a member of Brazzale group, transport majority of its production to Italian subsidiary. In Italy, the production and operating costs such as input price and labor force are much higher than in the Czech Republic. For example, milk producer price reach about 40 EUR per 100 liters in Lombardi in comparison to 32 EUR in the Czech Republic. This favorable location of the company leads to significant decrease of the costs while it is processed around 240 000 liters of milk per day. In the lower level of company hierarchy, business level, it is used also low-cost strategy in terms of product pricing. Specifically, in supermarkets, the average price of Gran Moravia (industrially packed) reaches to 50 CZK per 100 g while the competitor Zanetti prices its parmesan to 77 CZK in average.

*Synergy* means when two businesses of one company can link together in some stage of production. When Orrero was acquired by Brazzale, their businesses became interconnected. Presently, Orrero is using Italian warehouses where majority of Gran Moravia is seasoning. Brazzale packaging facilities are also used for Orrero cheese packaging. Orrero has an advantage to use also Brazzale distribution channels. Brazzale Group belongs to TOP 10 of parmesan exporters and its cheese is shipped all over the world.

Further, Orrero has unique position in the Czech cheese industry by producing one and only parmesan type of cheese in the Czech Republic.

Potentially some other Czech cheese producer could try to produce similar hard type of cheese. It may be assumed that this is not currently probable. It is due to the fact that the new producer will face several problems including the necessity for huge initial investment to new type of production line and big storage rooms for ageing of cheese. Another problem will be the recoverability of investment as good cheese of type parmesan is ageing from 18 to 24 months.

*Long term goals* are shaping the business strategy as a whole. According to Ing. Roman Diener, the business director of Orrero a.s, the long term goals of the company are focused on:

- ✓ *Development of distribution retail chain "La Formaggeria" until the end of the year 2014*

- ✓ *Increasing knowledge of the Czech consumers about the cheese Gran Moravia resulting in higher purchase of the product*
- ✓ *Growth of customers ' loyalty of the Gran Moravia*

Access to <u>distribution chains</u> are one of the most important factor of each business success. Orrero realizes its sales through wholesale trade to food retail chains, system Gastro (restaurants and other food businesses), and to specialized food shops. Orrero sales managers have implemented also the strategy concerning forward vertical integration of their manufacturing. By different words, Orrero has established its own retail chain called "La Formaggeria". Recently, first four shops have been opened in Olomouc, Brno, Ostrava and Hradec Králové. Orrero managers are performing their activities in order to open "La Formaggeria" subdivisions in České Budějovice and Liberec in the nearest future.

There exist two basic motives of vertical integration for Orrero manufacturing. The first motive represents the improvement of product inputs efficiency. Thus, the advantage of La Formaggeria project is related to decreasing of company's transaction costs. The term transaction costs refers to all costs related to realization contracts with purchasers located in forward level of production vertical (or suppliers located in backward level respectively). Absence of wholesale trade dependence leads to decreasing of Orrero transaction costs.

The second motive is attributed to strengthen of Orrero market influence. Vertical integration advantage can be attributed to increasing bargain power of Orrero in terms of customer prices of its own products. Furthermore, the company is getting closer to its customers through widening of distribution channels, promoting its own product and supporting sales.

Establishment of the retail chain "La Formaggeria" carries also appreciable risks. Acquisition costs and operating costs carry important share of company's risks. The success of La Formaggeria is given by proportion of these costs to total sales. It has to be taken account also the opportunity costs in terms of wholesale trading. This widening of distribution strategy can be evaluated as successful if the total sales are higher than these

costs. Thus, it is necessary to develop strategies attracting customers and increasing customer's purchase.

The favorable shop's localization represents one of the determining factors of level of customer purchase. Figure 6.6 illustrates the regions of the Czech Republic in terms of customer purchasing parity. The average is evaluated there by 100%. The power of purchasing parity of different regions is illustrated by the color palette. According to the map, the weakest purchasing parity has been measured in Olomoucký, Moravskoslezký and Ústecký region. Presently, there are opened four of "La Formaggeria" retail shops located in Olomouc, Brno, Ostrava and Hradec Králové. Orrero managers are performing their activities in order to open "La Formaggeria" subdivisions in České Budějovice and Liberec in the nearest future. Consequently, Orrero located two of its shops in the regions with the lowest purchasing parity in the Czech Republic. It would be more favorable to open firstly La Formaggeria subsidiaries in Prague where the purchasing parity is greater by 40 % in comparison to Moravskoslezký and Olomoucký regions. Moreover, Karlovarský, Plzeňský and Středočeský regions dispose also by high sales potential for "La Formaggeria" establishment.



Figure 6.6    Regional purchasing parity and localization of "La Formaggeria" retail chain 2011, source Incoma Gfk, *own work on shop localization*

Furthermore, it has to be considered that specialized food shops do not represent the most important place where the food is purchased. The marketing research of Incoma Gfk

[74] shows that hypermarkets are the most important shopping places for 43 % of the Czech population. Thus, 15 % of Czechs are used to shop mostly in the supermarkets and 25 % of inhabitance purchase food in discount stores. Lastly, 15 % of people spend majority of their budget on small food shops. Unfortunately the trend shows stable decrease of purchasing in the small food shops since 1997 when 62 % of people used to go to small food shops. As a result, specialized shops "La Formaggeria" has to face to strong competition represented by supermarkets and hypermarkets where nearly 70 % of people are realizing their food purchase.

Interestingly, the results of the quantitative research of this thesis show that 85 % of Gran Moravia customers are shopping in specialized food shops, especially with wine and cheese. However, it has to be taken account that the customers were questioned in the Farmer market only and this information cannot be generalized to all Gran Moravia customers. Consequently, one of the Orrero options would be placing of "La Formaggeria" subsidiary close to these supermarkets in order to support customer purchase. Another alternative to support the shopping might be placing tables in the corner, where people can taste the wine and cheese and help them to decide. This interconnection of the shop and tasting room was successfully implemented already in London by cheese chain "La Fromagerie", stylish cheese and bar shop recognized as being one of the most successful cheese businesses in England. Futher, it is necessary to educate shop assistance about the products they sell and control the quality of services in La Formaggeria, for instance by mystery shopping method.

Increasing knowledge about cheese Gran Moravia represents an important factor of sales growth. According to internal resource of the cheese manufacture Orrero, the marketing budget is currently represented by 5-7% of sales in the Czech Republic. Orrero promotes Gran Moravia cheese in multiple magazines for woman. There can be found both advertisements and articles related to healthy diets and lifestyle. Gran Moravia is well promoted also in television through the transmission called "S Italem v kuchyni" (With Italian man in the kitchen). Emanuele Ridi, well-known Italian chef, is a moderator of this broadcast related to cooking and he promotes Gran Moravia as tasty parmesan for cooking. A research of the Medea Group [75], company specialized to media analyses, points out that there is increasing trend in TV consumption. Television is watched by around 6,7 million of consumers every day in the Czech Republic and is the most effective tool of

product promotion. Thus, it would be favorable to strengthen promotion in television, even if it requires significant financial investments. The advertising through magazines differs by segment. On one hand, there is a decreasing trend in purchasing magazines about IT, cinema, photography, communicational technologies, and magazines for teenagers. On the second hand, there is measured increasing trend of purchasing magazines oriented to cooking and lifestyle. Internet advertising is not as effective in accordance to the research. To sum up, Orrero take advantage of both effective tools, and so TV advertisement and lifestyle magazines.

Customer loyalty represents one of the most important objectives for multiple national and international organizations, the same for the cheese producer Orrero a.s. Loyal customer generate higher revenues for the company in long-term period and there is no need for further advertisement (for details see 3.6.4). The quantitative research, described in the previous chapter, came up with important relations. The customer satisfaction analyses show a strong interdependence between the customer loyalty and customer satisfaction. More specifically, overall satisfaction is correlated by coefficient 0,633 to shopping duration of Gran Moravia purchasing. Consequently, it is highly recommended to include customer satisfaction issue to company's objectives and continuously analyze trends of the customer satisfaction performance in terms of Gran Moravia Product.

For instance, quantitative and qualitative research points out the need to concentrate effort to quality improvements. People are satisfied with taste of weighted Gran Moravia but unsatisfied with industrial packed cheese which is sold in supermarket chain. Second level quality of this cheese can outflow customers and create poor reputation about the product (Considering that hypermarkets and supermarkets represents the most important place for 70 % of Czech inhabitance and so Gran Moravia should have representative quality there).

Further, one of quantitative results shows that as much people are loyal to the Gran Moravia, as much often they purchase the product. This means that loyal customer purchase Gran Moravia much more than regular customer and so it is key issue to develop customer loyalty programs. For example, loyalty cards represent efficient tool to increase customer interest. They can be based on point collecting and rewards while reaching fixed point level. Majority of food brands cannot use these club cards and loyalty of customer can be increased only by good reputation and product quality. "La Formaggeria" food

chain enables to use these club cards in contrast to those brands that are purchased with other products in the supermarkets.

## 7        RESULTS AND RECOMMENDATIONS

Competitiveness of a cheese manufacturer is dependent on various factors including internal strategic decisions, GDP growth rate in the Czech Republic and other countries, on specifics of Czech dairy market to global economic and agricultural trends. The thesis evaluates current competitive standing of cheese producer Orrero on the bases of these factors, formulates strategy for its further development and summarized them into following conclusions.

1. Further specialization to value added dairy products is going on in developed countries. The cheese industry favors by both increasing trend in cheese production and consumption within the EU countries. In the Czech Republic is increasing trend in cheese consumption tending to equalize with EU average.

2. Milk and its prices, as the most important input to the cheese manufacturing, it is strictly influenced by global economic situation. For illustration, in 2007, the enormous demand of milk in developing countries significantly increased the world milk prices by 88 % from previous year. In contrast, the global economic crisis squeezed the milk price to its long-term minimum (to 50 % in the Czech Republic). Presently milk price remains quite stable reaching upper bound. For producer Orrero processing 240000 liters of milk per day, the milk price significantly affects production costs.

3. The foreseen trend in cheese consumption is influenced by range of macro-economical and demographics factors such as trends in average salary growth, in percentage of unemployment or aging of the population and their purchasing power. The company Orrero has been specialized on production of Italian cheese "De lux" such as parmesan. Therefore, Orrero product purchase is more sensitive on changing of life standards in contrast to common types of cheese categorized rather as a basic food.

4. Czech cheese producers face high competition on the market. The developed analysis based on Five Force Model shows relatively high entering barriers for further new entrance of a producer. The producer Orrero as a new entrant to the Czech market has to deal with high capital investment requirements, long period of capital return

connected with the high period of Gran Moravia seasoning, absence of economics of scale and presence of multinational companies with high level of concentration.

5. Bargaining power of purchasers and multinational food chains are very strong. Czech retailers put a pressure to processing companies and forcing them to sell products for minimum price in order to gain higher market share. Consequently, Orrero bargaining power is low in terms of its own product price.

6. Bargaining power of suppliers, especially primary milk producers, are particularly low. This low ability of farmers to bargain with processing companies is caused by surplus of milk production and by fragmentation of primary milk production into approximately 2500 subjects in the Czech Republic. Thus, Orrero currently advantages from low bargaining power of its suppliers.

7. Rivalry among competitor sellers is specified as a strong. Rivals are analyzed under terms of entire industry and selectively in terms of competitive products. The results indicate difficulties for Orrero to compete with three multinational cheese producers that own majority of traditional national cheese brands and also some foreign brands, particularly favorite in the Czech Republic, such as Král sýrů, President or Leerdamer. These companies have attracted customers' loyalty to their brands.

8. Orrero is the only one Czech producer of Gran Moravia "parmesan". The rivals for Orrero are represented mainly by imports of Grana Padano and Parmagiano Reggiano. The biggest competitor is the Italian products of Zanetti distributed to important retail food chains in the Czech Republic.

9. The product portfolio analysis developed within the thesis shows the low differentiation of Orrero cheese production. Profile product Gran Moravia was placed into the quadrant called "Questions marks". The results show high, 41% share of Gran Moravia to total imports of parmesan to the Czech Republic. However, the total amount of parmesan type of cheese on the Czech market represents consumption around 34 grams per inhabitant per year in the Czech Republic. Considering the current annual 20% growth of parmesan market, the producer Orrero faces a great challenge. Other types of cheeses produced by Orrero are placed in the quadrant "Stars". However, similarly, the market size for these two types of Italian cheese is low even if presently there is around 9 % market growth.

10. Since the global economic crises, when Orrero operated with loss, the financial situation of the company significantly improved. Improvements are based on the results of multiple financial indicators such as rentability, activity or liquidity. However, the Orrero leverage still reaches high values. The total asset is covered in 76 % by leverage that is still above the sectoral average.

11. The outcomes of qualitative analyses show that consumers are very satisfied with the taste of weighted cheese Gran Moravia in comparison to competitive Italian brands of parmesan. However, the respondents were unsatisfied with the taste of industrially packed cheese Gran Moravia available in the supermarkets. Further, some respondents downgraded the real quality of cheese Gran Moravia, just for the fact of the land of origin (made in Czech Republic). Thus, it is necessary to create better reputation about the product, to attract customers and strengthen their loyalty.

12. The results of quantitative research show overall high satisfaction with the product. However, respondents were not satisfied with availability of the product in the market and with the quality of industrially packed cheese Gran Moravia. Importantly, overall satisfaction is strongly dependent on taste of the cheese and less on its price.

13. Thus, it may be assumed that the overall satisfaction will growth, even if producer Orrero might decide to slightly increase the price for the cheese, under assumption that the producer will be rather more concentrated on quality issues. Further, one of the results shows that as much people are loyal to the Gran Moravia, as much often they purchase the product. This means that loyal customer would purchase Gran Moravia much more than regular customer. Thus, it is key issue to develop customer loyalty programs.

14. Strategy concerning development of food retail chain "La Formageria" strengthen the influence of Orrero in the Czech market and contributes to decreasing of company's transaction costs. However, the risk is attributed to national trend in the food purchasing because 70 % of people are used to do shopping mostly in supermarkets or hypermarkets. Moreover, as it is shown in the thesis, the strategy of shops placement do not go ahead with regional purchasing potential. For diminishing business risk, it is recommended to place next "Formaggeria" subsidies with respect to the purchasing parity in Prague, Plzeň and Karlovy Vary.

15. For improving competitiveness and strengthening position in the Czech market, the company Orrero should make investment in promotion of Gran Moravia cheese, in packing and cutting services for the needs of supermarkets. Availability of high quality cheese should be improved. Customer's satisfaction should be regularly assessed in regions with higher purchasing parity.

It is foreseen that the cheese company Orrero will be influenced with expected economic stagnancy in EU countries including the Czech Republic within next years, and also with growth in milk production after the end of EU milk quotas in 2015. The company may face competitive and significantly volatile cheese market. However, systematic treatment of customers' satisfaction could bring long-term prosperity of the company. The risks of company potential decrease will be diminished by predictable and sustainable purchase.

**ABBREVIATION:**

**ČSÚ –** Czech Statistical Office

**EAT** – Earning after tax

**EBIT** – Earning before interest and tax

**FAO –** Food and Agriculture Organization

**FAOSTAT –** Food and Agriculture Organization of United Nations

**OECD –** Organization for Economic Co-operation and Development

**USDA** – U.S. Department of Agriculture

**SMP –** skimmed milk powder

**WMP** – whole milk powder

**DNV –** Det Norske Veritas (DNV Food Safety Certification covers the whole food chain such as Agriculture Producers, Bakery, Meat Industry, Beverage, Hotels, etc.)

**EUROSTAT** – Statistical Office of the European Communities

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[70]     http://eagri.cz/public/web/file/108541/SVZ_mleko_prosinec_2010.pdf
         (20.11. 2011, 11:00)

[71]     http://www.fem.uniag.sk/mvd2006/zbornik/sekcia1/s1_lechanova_iva_106.pdf
         (20.11.2011, 10:30)

[72]     http://tutor2u.net/business/strategy/bcg_box.htm (21.11.2011, 15:00)

[73]     Zboží a prodej, periodical magazine No. 186, 2011, Atoz Marketing Services, a.s.,
         Prague (15.11. 2011, 16:00)

[74]     http://www.incoma.cz/cz/ols/reader.aspx?msg=1197&lng=CZ&ctr=203
         (22.11.2011, 10:00)

[75]     http://webcasopisu.cz/priloha/4ea80ff4eeb06/jan-matejka-4ea81b29f3e5f.pdf
         (25.11. 2011, 18:00)

[76]     http://ftp.jrc.es/EURdoc/JRC53116.pdf (25.10.2011, 14:00)

**APENDIX  A          CUSTOMERS'  SURVEY**

## Questionnaire

**1. How long have you purchased Gran Moravia?**

☐ less than 6 month ☐ more than 6 months but less than 1 year
☐ 1-3 years ☐ over 3 years ☐ never used

**2. How often do you purchase the cheese Gran Moravia?**

☐ for the first time today ☐ more than once a week ☐ once a week
☐ once a two weeks ☐ once a mount ☐ less than once a month

**3. How would you evaluate the price of cheese Gran Moravia in comparison with competitive labels of "parmesan type" of cheese?**

☐ 1 (the best) ☐ 2 ☐ 3 ☐ 4 ☐ 5 (the worst)

**4. Overall, how satisfied are you with cheese Gran Moravia as a product?**

☐ 1 (the most) ☐ 2 ☐ 3 ☐ 4 ☐ 5 (the worst)

**5. How are you satisfied with the price of cheese Gran Moravia?**

☐ 1 (the most) ☐ 2 ☐ 3 ☐ 4 ☐ 5 (the worst)

**6. How satisfied are you with taste of cheese Gran Moravia?**

☐ 1 (the most) ☐ 2 ☐ 3 ☐ 4 ☐ 5 (the worst)

**7. How are you satisfied with availability of weighted cheese Gran Moravia in Prague?**

☐ 1 (the most) ☐ 2 ☐ 3 ☐ 4 ☐ 5 (not at all)

**8. Have you purchased industrially packed cheese Gran Moravia in the supermarkets?**

Yes No

**If answer yes, are you satisfied with quality of Gran Moravia?**

☐ 1 (the most) ☐ 2 ☐ 3 ☐ 4 ☐ 5 (not at all)

**9. Are you going shopping to specialized food shops (such a shops offering foreign cheese and wine)?**

☐ Yes ☐ No

**10. Your age category**

☐ less than 20 years ☐ from 20-29 years ☐ from 30 to 40 years
☐ from 40 to 50 years ☐ from 50 to 65 ☐ over 65 years+

**11. Gender**

☐ male ☐ fiale

## Dotazníkové šetření

1. **Jak dlouho kupujete sýr Gran Moravia?**

   ☐ méně než 6 měsíců     ☐ více než 6 měsíců, ale méně než jeden rok

   ☐ 1-3 roky     ☐ přes 3 roky     ☐ dnes poprvé

2. **Jak často kupujete sýr Gran Moravia?**

   ☐ dnes poprvé     ☐ vícekrát týdně     ☐ jednou týdně

   ☐ jednou za 14 dní     ☐ jednou za měsíc     ☐ za více jak jeden měsíc

3. **Jak hodnotíte cenu sýru Gran Moravia s porovnáním s konkurenčním sýrem parmazánového typu?**

   ☐ 1 (Nejlepší)     ☐ 2     ☐ 3     ☐ 4     ☐ 5 (nejhorší)

4. **Jak jste celkově spokojen/a se sýrem Gran Moravia?**

   ☐ 1 (Nejvíce)     ☐ 2     ☐ 3     ☐ 4     ☐ 5 (vůbec)

5. **Jak jste spokojen/a s cenou sýru Gran Moravia?**

   ☐ 1 (Nejvíce)     ☐ 2     ☐ 3     ☐ 4     ☐ 5 (vůbec)

6. **Jak jste spokojen/a s chutí sýru Gran Moravia?**

   ☐ 1 (Nejvíce)     ☐ 2     ☐ 3     ☐ 4     ☐ 5 (vůbec)

7. **Jak jste spokojen/a s dostupností váženého sýru Gran Moravia v Praze?**

   ☐ 1 (Nejvíce)     ☐ 2     ☐ 3     ☐ 4     ☐ 5 (vůbec)

8. **Koupil/a jste si někdy průmyslově zabalený sýr Gran Moravia v supermarketu?**

   ☐ Ano     ☐ Ne

   **Jesliže ano, byl/a jste spokojena s kvalitou tohoto sýra?**

   ☐ 1 (Nejvíce)     ☐ 2     ☐ 3     ☐ 4     ☐ 5 (vůbec)

9. **Chodíte do specializovaných prodejen s potravinami (například se sýrem či vínem)?**

   ☐ Ano     ☐ Ne

10. **Vaše věková kategorie**

    ☐ od 20 let     ☐ 20-29 let     ☐ 30-40

    ☐ 40-50     ☐ 50-65     ☐ 65+

11. **Pohlaví**

    ☐ Muž          ☐ Žena

**Photos of data collection in the farmer market in Prague 6**

**for analysis of customer satisfaction**



Figure A.1 Stand with the Czech parmesan Gran Moravia, the author of thesis is filling up questionnaire with customers.

| Descriptive Statistics | | | |
|---|---|---|---|
| Age | | N | Mean |
| from 20 to 29 years | ShopDuration | 25 | 3,60 |
| | ShopFrequency | 30 | 5,33 |
| | PriceAppraisal | 25 | 2,60 |
| | OverallSat | 15 | 1,33 |
| | PriceSat | 25 | 2,00 |
| | TasteSat | 20 | 1,75 |
| | AvailabilitySat | 15 | 2,33 |
| | SatIndustGM | 0 | |
| from 30 to 40 years | ShopDuration | 30 | 1,50 |
| | ShopFrequency | 30 | 4,00 |
| | PriceAppraisal | 30 | 2,33 |
| | OverallSat | 30 | 1,67 |
| | PriceSat | 30 | 2,17 |
| | TasteSat | 30 | 1,67 |
| | AvailabilitySat | 25 | 2,80 |
| | SatIndustGM | 15 | 4,00 |

| Descriptive Statistics | | | |
|---|---|---|---|
| Age | | N | Mean |
| from 40 to 50 years | ShopDuration | 10 | 3,00 |
| | ShopFrequency | 15 | 4,33 |
| | PriceAppraisal | 10 | 3,00 |
| | OverallSat | 10 | 1,50 |
| | PriceSat | 15 | 2,00 |
| | TasteSat | 15 | 1,33 |
| | AvailabilitySat | 10 | 3,00 |
| | SatIndustGM | 5 | 5,00 |
| from 50 to 65 | ShopDuration | 25 | 2,60 |
| | ShopFrequency | 25 | 4,00 |
| | PriceAppraisal | 25 | 1,80 |
| | OverallSat | 20 | 1,00 |
| | PriceSat | 25 | 2,20 |
| | TasteSat | 25 | 1,40 |
| | AvailabilitySat | 20 | 2,50 |
| | SatIndustGM | 15 | 3,67 |

| Descriptive Statistics | | |
|---|---|---|
| | N | Mean |
| ShopDuration | 90 | 2,56 |
| ShopFrequency | 100 | 4,45 |
| PriceAppraisal | 90 | 2,33 |
| OverallSat | 75 | 1,40 |
| PriceSat | 95 | 2,11 |
| TasteSat | 90 | 1,56 |
| AvailabilitySat | 70 | 2,64 |
| SatIndustGM | 35 | 4,00 |

Table A1 Quantitative Analyses of Customers' Satisfaction - Descriptive Statistics

Figure A.2 Recently opened La Formaggeria in Hradec Králové

| | Albert | Billa | Globus | Interspar | Tesco | Market | Stand |
|---|---|---|---|---|---|---|---|
| *Gran Moravia Weighted 18 m.* | 50 | | 43,6 | 43,9 | - | 50 | 50 |
| *Gran Moravia* | | 47,9 | 47,9 | 50,0 | 53,9 | | |
| *Gran Moravia grated* | | 45,9 | 45,9 | 45,9 | 53,2 | | |
| *Grana Padano Zanetti* | | 76,6 | 57 | 63,3 | | 77 | 77 |
| *Grana Padano Tesco* | | | | | 50,0 | | |
| *Grana Padano Zanetti grated* | | 92,3 | | 63,8 | | | |
| *Grana Padano Tesco grated* | | | | | 33,3 | | |
| *Grana Padano Billa* | | 50,0 | | | | | |
| *Grana Padano, Italian specialty 68* | | | | | | 55,9 | |
| *Parmaggiano Regiano Zanetti grated* | | | 84,75 | 69,9 | 76,5 | | |
| *Parmaggiano Regiano Zanetti* | | 80.6 | | 70,0 | 80,6 | | |
| *Parmaggiano Regiano Galbani* | 72,5 | | | | | | |
| *Parmigino Regiano Weighted* | | | 68,9 | | | | |
| *Parmigino Regiano* | | | 75,3 | | | | |
| *Pecorino Romano Zanetti* | | | 49,95 | | 53,95 | | |
| *Bio Parmigiano Regiano 24 m.* | | | 71,9 | | | | |

Table A.2 - Survey of prices (in CZK per 100 g) in supermarkets Albert and Billa, in hypermarkets Globus, Interspar and Tesco, in Farm Market of Prague 6 and in a small private stand, Shopping centre Šestka, Prague 6

**Correlations**

| | | ShopDuration | ShopFrequency | PriceAppraisal | OverallSat | PriceSat | TasteSat | AvailabilitySat | ExperIndustGM | SatIndustGM | SpecialShops | Age | Gender |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ShopDuration | Pearson Correlation | 1 | ,632** | ,144 | ,633 | -,223* | ,226* | ,169 | -,288** | ,551** | -,238* | -,127 | -,269* |
| | Sig. (2-tailed) | | ,000 | ,202 | ,001 | ,040 | ,044 | ,161 | ,006 | ,001 | ,024 | ,232 | ,010 |
| | N | 90 | 90 | 80 | 75 | 85 | 80 | 70 | 90 | 35 | 90 | 90 | 90 |
| ShopFrequency | Pearson Correlation | ,632** | 1 | ,502** | ,051 | ,069 | ,104 | -,048 | -,167 | ,204 | -,345** | -,379** | ,035 |
| | Sig. (2-tailed) | ,000 | | ,000 | ,663 | ,507 | ,331 | ,696 | ,098 | ,240 | ,000 | ,000 | ,728 |
| | N | 90 | 100 | 90 | 75 | 95 | 90 | 70 | 100 | 35 | 100 | 100 | 100 |
| PriceAppraisal | Pearson Correlation | ,144 | ,502** | 1 | ,600** | ,644** | ,411** | -,367** | -,274** | -,351 | ,047 | -,271** | -,125 |
| | Sig. (2-tailed) | ,202 | ,000 | | ,000 | ,000 | ,000 | ,004 | ,009 | ,057 | ,658 | ,010 | ,240 |
| | N | 80 | 90 | 90 | 65 | 85 | 80 | 60 | 90 | 30 | 90 | 90 | 90 |
| OverallSat | Pearson Correlation | ,633 | ,051 | ,600** | 1 | ,509** | ,847** | -,565** | -,368** | .c | ,257* | -,281* | -,312** |
| | Sig. (2-tailed) | ,001 | ,663 | ,000 | | ,000 | ,000 | ,000 | ,001 | 0,000 | ,026 | ,015 | ,006 |
| | N | 75 | 75 | 65 | 75 | 75 | 75 | 70 | 75 | 35 | 75 | 75 | 75 |
| PriceSat | Pearson Correlation | -,223* | ,069 | ,644** | ,509** | 1 | ,371** | -,314** | -,196 | ,242 | ,054 | ,063 | -,105 |
| | Sig. (2-tailed) | ,040 | ,507 | ,000 | ,000 | | ,000 | ,008 | ,057 | ,162 | ,607 | ,545 | ,309 |
| | N | 85 | 95 | 85 | 75 | 95 | 90 | 70 | 95 | 35 | 95 | 95 | 95 |
| TasteSat | Pearson Correlation | ,226* | ,104 | ,411** | ,847** | ,371** | 1 | -,575** | -,236* | -,624** | ,166 | -,249* | -,270* |
| | Sig. (2-tailed) | ,044 | ,331 | ,000 | ,000 | ,000 | | ,000 | ,025 | ,000 | ,118 | ,018 | ,010 |
| | N | 80 | 90 | 80 | 75 | 90 | 90 | 70 | 90 | 35 | 90 | 90 | 90 |
| AvailabilitySat | Pearson Correlation | ,169 | -,048 | -,367** | -,565** | -,314** | -,575** | 1 | ,011 | ,417* | ,045 | ,025 | ,352** |
| | Sig. (2-tailed) | ,161 | ,696 | ,004 | ,000 | ,008 | ,000 | | ,929 | ,013 | ,710 | ,838 | ,003 |
| | N | 70 | 70 | 60 | 70 | 70 | 70 | 70 | 70 | 35 | 70 | 70 | 70 |
| ExperIndustGM | Pearson Correlation | -,288** | -,167 | -,274** | -,368** | -,196 | -,236* | ,011 | 1 | -,262 | -,262** | ,338** | -,027 |
| | Sig. (2-tailed) | ,006 | ,098 | ,009 | ,001 | ,057 | ,025 | ,929 | | ,128 | ,008 | ,001 | ,787 |
| | N | 90 | 100 | 90 | 75 | 95 | 90 | 70 | 100 | 35 | 100 | 100 | 100 |
| SatIndustGM | Pearson Correlation | ,551** | ,204 | -,351 | .c | ,242 | -,624** | ,417* | -,262 | 1 | ,242 | -,118 | ,661** |
| | Sig. (2-tailed) | ,001 | ,240 | ,057 | 0,000 | ,162 | ,000 | ,013 | ,128 | | ,162 | ,500 | ,000 |
| | N | 35 | 35 | 30 | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 35 |
| SpecialShops | Pearson Correlation | -,238* | -,345** | ,047 | ,257* | ,054 | ,166 | ,045 | -,262** | ,242 | 1 | -,282** | ,153 |
| | Sig. (2-tailed) | ,024 | ,000 | ,658 | ,026 | ,607 | ,118 | ,710 | ,008 | ,162 | | ,004 | ,128 |
| | N | 90 | 100 | 90 | 75 | 95 | 90 | 70 | 100 | 35 | 100 | 100 | 100 |
| Age | Pearson Correlation | -,127 | -,379** | -,271** | -,281* | ,063 | -,249* | ,025 | ,338** | -,118 | -,282** | 1 | -,337** |
| | Sig. (2-tailed) | ,232 | ,000 | ,010 | ,015 | ,545 | ,018 | ,838 | ,001 | ,500 | ,004 | | ,001 |
| | N | 90 | 100 | 90 | 75 | 95 | 90 | 70 | 100 | 35 | 100 | 100 | 100 |
| Gender | Pearson Correlation | -,269* | ,035 | -,125 | -,312** | -,105 | -,270* | ,352** | -,027 | ,661** | ,153 | -,337** | 1 |
| | Sig. (2-tailed) | ,010 | ,728 | ,240 | ,006 | ,309 | ,010 | ,003 | ,787 | ,000 | ,128 | ,001 | |
| | N | 90 | 100 | 90 | 75 | 95 | 90 | 70 | 100 | 35 | 100 | 100 | 100 |

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

c. Cannot be computed because at least one of the variables is constant.

Table A3      Correlation coefficients of customer satisfaction- Customer analyses