

Czech University of Life Sciences Prague

Faculty of Economics and Management

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Bachelor Thesis

Factors influencing consumption of beer in Russia

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CZECH UNIVERSITY OF LIFE SCIENCES PRAGUE

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BACHELOR THESIS ASSIGNMENT

Mikhail Rodovolskiy

Economics and Management

Thesis title

Factors influencing consumption of beer in Russia

Objectives of thesis

To review main consumption behavior theories. To evaluate factors that most contribute to beer consumption in Russia. Compare beer consumption with other alcohol consumption. Propose measures to enhance competition of beer vs. wine.

Methodology

Literature review is conducted using methods of synthesis, extraction, deduction, induction and abstraction. Analytical section is done using numerical methods of quantitative analysis. If possible, also questionnaire tools will be employed. Finally, methods of qualitative analysis will be utilized.

The proposed extent of the thesis

40 pages

Keywords

beer, beer consumption, Russia, alcohol consumption theories

Recommended information sources

Burk, Marguerite C. Consumption Economics. New York: Wiley, 1968. Print.

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Samuelson, Paul A and William D Nordhaus. Economics. New York: McGraw-Hill, 1985. Print.

Swinnen, Johan F. M., 2011, The economics of beer. Oxford : Oxford University Press.

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Declaration

I declare that I have worked on my bachelor thesis titled "Factors influencing consumption of beer in Russia" by myself and I have used only the sources mentioned at the end of the thesis. As the author of the bachelor thesis, I declare that the thesis does not break copyrights of any their person.

In Prague on 03.03.2017

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Faktory ovlivňující spotřebu piva v Rusku

Souhrn

Tato bakalářská práce se skládá ze 2 částí. První část je přehled literatury. V přehledu literatury je pozorování ruského trhu s alkoholem, zejména pivo. Zde je stručný přehled předchozích let Rusko je spotřeba piva, výroby a prodeje piva. Praktická část rovněž zkoumá hlavní pojmy spotřebitelského chování, rozhodovací procesy v souladu s spotřeba piva v Rusku.

Druhá část je praktická. To je analytická část se skládá z dat, které připravil autor této práce. Obsahuje autorova šetření, které faktory ovlivňují spotřebu piva v Rusku.

Klíčová slova: Rusko, pivo, spotřeba piva, alkohol, ruský trh s pivem, teorie spotřeby

Factors influencing consumption of beer in Russia

Summary

This bachelor thesis consists of 2 parts. The first part is the literature review. In the literature review there is an observation of Russian alcohol market, especially the beer. There is a brief review of the previous years of Russia's beer consumption, production and sales of beer. The practical part also investigates the main concepts of consumer behaviour, decision-making processes in accordance with the consumption of beer in Russia.

The second part is the practical. It is the analytical part consists of the data, which was prepared by the author of this thesis. It contains the author's investigation of which factors influence the consumption of beer in Russia.

Keywords: Russia, beer, beer consumption, alcohol, Russian beer market, consumption theories.

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1 Introduction

Consumption – using of income for hoarding (storing values without profitable usage for satisfaction of needs). Saving – part of income, which is not used for consumption.

According to the classic concept, the level of total spending, defined by total income, is enough to buy products, produced in conditions of full employment. Keynes's approach is that the value of demand of some particular economic subjects depends on influence of different motives, including psychological factors. From his times the new terms such as “the tendency”, “expectations”, “preference” etc. have been appeared in vocabulary of economic science. These terms in the form of specific economic indicators allow us not only take into account psychological factors, but also measure its influence in analysis of macroeconomic balance.

Structure of consumption for individuals and families is quite individual. People spend money in accordance with their income and lifestyle. However there are some common priorities. It is not hard to imagine family expenses according to their level of importance for food, clothing, transport, medicine, education. In this case less wealthy families spend their money mostly on food and the most important daily needs. With the increase of family income, expenses on clothing, vacation, entertainment, savings etc. also increase.

Therefore, consumption is the main component of expenses. That is why it is so important to understand the factors, determining consumption expenses. There are lots of factors, which influence on the level of consumption.

2 Objectives and Methodology

2.1 Objectives

The aim of the investigation is to find the factors influencing the consumption of beer in Russia. The processes of comparing beer consumption with other alcohol consumption and proposing measures to enhance competition of beer vs. wine can be considered as very important and actual for future predictions and forecasts of development of alcohol beverages industry.

This research can be necessary for economical investigators, who want to expand their business in the country with highly fast growing market.

2.2 Methodology

To fully analyze and deeply understand the roots of the economical growth of beverages industry in Russia the mixture of two oppositely different research methodologies - qualitative and quantitative - should be used. Qualitative research is connected with examination and interpretation of observations for the purpose of discovering underlying unknown meanings and relationships between diverse aspects, without using or involving mathematical models. Quantitative approach contains systematic computational and statistical study of some hypotheses.

There are plenty of various techniques that can be practiced such as selection, deduction, induction, synthesis, and extraction.

Inductive reasoning begins with observations that form a theory, which can be counted as a conclusion of investigation. The concept that “inductive reasoning is often referred to as a “bottom-up” approach to knowing, in which the researcher uses observations to build an abstraction or to describe a picture of the phenomenon that is being studied” was offered by Lodico and co-writers in 2006.

A deductive research is related to “developing a hypothesis (or hypotheses) based on existing theory, and then designing a research strategy to test the hypothesis” (Wilson,2010). As Babbie E. R. claims in his book (2013), the process may start with known, already given thesis “that is tested against observations, whereas induction begins with observation and seeks to find a pattern within them”.

Synthesis is an opposite type of approach method to analysis. While the last tries to divide an object into parts and investigate its characteristics, structure and features, synthesis gathers different traits of the object into common one.

Extraction is a process of retrieving needed information from the source for further storage, analysis, process. This act is very basic and ordinary between researchers, because as the first step it's necessary to allocate required material in every held study.

Correlation analysis is a statistical process that indicates the extent to which two or more variables fluctuate together. A positive correlation indicates the extent to which those variables increase or decrease in parallel; a negative correlation indicates the extent to which one variable increases as the other decreases.

3 Literature Review

3.1 Supply and Demand

At the root of everything is supply and demand. It is not at all farfetched to think of these as basically human characteristics. If human beings are not going to be totally self-sufficient, they will end up producing certain things that they trade in order to fulfill their demands for other things. The specialization of production and the institutions of trade, commerce, and markets long antedated the science of economics. Indeed, one can fairly say that from the very outset the science of economics entailed the study of the market forms that arose quite naturally (and without any help from economists) out of human behavior. People specialize in what they think they can do best--or more existentially, in what heredity, environment, fate, and their own volition have brought them to do. They trade their services and/or the products of their specialization for those produced by others. Markets evolve to organize this sort of trading, and money evolves to act as a generalized unit of account and to make barter unnecessary (Harberger, 2008).

Supply – is one of the main things in the science of economics, which shows the amount of something, which producers and sellers can offer to buyer and consumers.

Demand – is also main thing in economics. It shows the amount of something, which buyers and consumers ready to purchase and consume.

3.2 Consumer behaviour

Consumer behavior is the study of the decision-making units and the processes, involved in acquiring consuming and disposing goods, services, experiences and ideas. Within the simple definition a number of important concepts are introduced. The definition uses term “decision-making units” rather than “consumers” since decision may be made either by individuals or group (Mowen, 1987).

It is the learning about processes, which happen and affect, when individuals or groups select, purchase, use or dispose products, services, ideas or experiences to satisfy their needs and desires (Solomon, 2002).

Consumer behavior also considers emotional, mental and physical activities of people in the process of selection, purchase and use of products services (Kotler, 1999).

There are lots of benefits in understanding of consumer behavior. It is very useful for the managers of the companies. It helps them in their decision-making. It also provides good analyzing of consumers for the marketing researchers. Furthermore it helps consumer to make better purchase decision. And of course, we can evaluate and define some economic, psychological and sociological factors, which have an impact on individuals (Mowen, 1987).

“Consumer behavior is the study of the processes involved when individuals or groups select, purchase, use or dispose of products, services, ideas or experience to satisfy needs and desires” (Solomon et al., 2006, p. 6).

3.3 Principles of consumer behaviour

“Consumer behavior is motivational, the main question that arises in this context is that “why consumer behavior occur?” Answer to this question is included in the definition of the consumer behavior – to meet the needs and demands of consumers, behavior is a tool to achieve objectives and target consumer derives from his needs and desires“ (Wilke, 2000).

It is important to mention, all people have different needs, each person differ from another one. That is why the consumer behavior individual, however it has several steps.

3.3.1 Decision-making process

Decision-making is the process of selecting of a best option among variety of different possibilities. According to Kotler, decision-making process is the process of identifying consumer’s level of dedication towards purchasing product.

3.3.2 Occurrence of need

The second stage appears, when consumer realizes that he or she needs some good or service (Kotler, 2009). The need can be caused by several cues such as recommendation or advertising. It also can appear, when the consumer sees a big difference between current state and his or her ideal. So after this goes the realizing, that there is a problem, which has to be solved (Solomon, 2002).

3.3.3 Searching the information about the product

"After realising the problem, consumer needs to solve it, using appropriate information. In order to make a reasonable decision, the consumer should observe his or her space around” (Solomon, 2002, p. 240). After the consumer agreed, that he or she needs to buy a product, the time for looking for the information about it (Kotler, 2009).

Thanks to the twenty first century, it possible easily to find information about any kind of product or service. There are lots of different sources such as Internet, advertising, newspapers, magazines, personal recommendations etc.

3.3.4 Consideration of all alternatives

After collecting all information about the product, the consumer will start the process of evaluation. An individual will find the best alternative, which is the most suitable and attractive due to the some points such as brand value, price, quality, and location to customer etc.

3.3.5 Decision of purchasing the product

At this step purchasing product has been chosen, the act of buying happens. There is a possibility of jumping to this step avoiding the previous ones, if previously consumer was happy with purchased product. Probably, the consumer will repeat purchase in future.

3.3.6 Evaluation of purchased good

The final step begins after the product has been purchased. Consumers start comparing process of the item with their expectations. In other words, they measure their decision against their purchase criteria, defining the product either satisfied or dissatisfied with their hopes and expectations (Lamb, 2011).

Positive evaluation can lead to the recommendation. According to Hirschman (2010) the branding is important and inseparable part of this process and when the people feel a strong emotional connection with the brand it is possible to say that it really affects the decision making process.

3.4 Factors which affect the purchasing decision

There are two main factors, affecting purchasing decision. They are:

- Internal characteristics, which determine behavior
- External influences, where behavior appears.

Both internal and external have their own sub factors.

3.4.1 Psychological (internal characteristic)

Motivation

Motivation is the main engine, which creates purchasing behavior. The well-known theory of Maslow's hierarchy of needs describes why people are motivated by specific need at particular time. The figure below shows needs in order of its importance. Once the individual fulfills one need, he or she jumps to the next level.



Fig. 1 Maslow's hierarchy of needs

Source: Revising Maslow's Hierarchy for a Socially-Networked World Psychology 21c, [Online] Available at: <http://psychology21c.org/2015/10/revising-maslows-hierarchy-socially-networked-World>

According to Duncan (2005) motivations are internal impulses, which require some response. Motivation can influence a consumer decision-making process depending on how the problem has been realized (Blech, 2012).

Attitude

To evaluate the relation of consumer to a brand and how it influences purchasing behavior, it is very important to define attitude. Attitude is a value judgment about something or ideas, which leads to certain behavior (Kotler, Keller & Burton, 2009).

In simple words, attitude is relation of an individual to some thing. He or she can like it or not. And once they are emerged, they tend to last. For example, Peter will drink the same beer in order to have the same feelings and the same satisfaction.

The ability to combine offer with the target market's position is one of the opportunities and tools of marketing specialists, modify and influence target market's the position to their product or to competitive offers (Kotler, 2009).

Beliefs

A belief is an opinion in person's mind, which he or she will use to describe something (Kotler, 2009). As an example, consumer can have a belief Staropramen makes the best beer and has the best prices for it, so it is obvious that he or she will continue drinking it. However, different things can easily change it. Especially marketers can change it, if they want the consumer to buy a concrete product. It can be also a difficult task, when, for example, if the good or service has a well-known name and stays on the market for a long time, or if it is intangible.

Perception

Perception is the process of selecting, organizing and interoperating sensations into a meaningful whole, in the past, methods of studying stimuli and measuring responses to them were restricted to examining the five senses (Hanna and Wozniak, 2013).

The process of interpreting selecting and organizing impulses into some meaningful thing picture of the world can be defined as perception (Schiffman and Kanuk, 2000).

Because of 3 perceptual processes (selective attention, selective distortion, and selective retention) people can perceive and react differently on the same impulses (Kotler, 2004). In simple words, it is the thing, describing people look on the world and deal with it.

Perception also guides us to act or not to act but depends on how the level of motivation (Kotler, 2003).

However, there are few factors, which, can influence on individuals' perception.

- Individual factors

Perception is affected by individual factors. Some of them are: taste, information, belief, smell, brand etc. (Kronl, 1995).

- Sales person behavior

From the other side of the process of selling something is the sales person or seller. The way how he or she interacts with the customer is very influential on consumers' perception. It has the ability to attract or disattract customers and build a good or bad view of good or service (Kapoor & Kulshreshta, 2009).

- Emotions

Emotions are accompanied by physiological changes. Some characteristic changes are: eye pupil dilation, increased perspiration, more rapid breathing, increased heart rate and blood pressure and enhanced blood sugar level (Hawkins, 1989). Consumption emotions are the affective responses to one's perception of the set of attributes that constitute a product or services performance (Mano, Oliver, 1993).

- Price promotion

Price perception influence perception for quality leading to a positively perceived value, but product price has a cost also which can impact negatively on the perceived value (Xia, 2009).

3.4.2 Personal factor (internal characteristic)

No doubts, the each person has its own things in the head. It is also refers to purchasing behavior. And first of all such things like age, sex, place of living, economic conditions, personality and self-consciousness refer here (Hoska, Sparke, 2007).

Obviously, age matters. The consumer will purchase different things when he is 25 and when he is 60. The lifestyle, activities, hobbies etc. affects the purchasing behavior. During the life an years these things can completely change. The series of stages, based on age, marital status, the amount of children and the combination of these things is called family lifecycle (Lamb 2012).

Everyboy confirms that personality has a big impact on purchasing environment. In addition to it, marketing specialists are sure, that character of an individual tells him or her which type or brands of a product to buy. For instance, a purchased car can show person's individual features .

Purchasing researches found the fact that the consumers try to defend their individuality. For example, the young people they will buy uncomfortable clothes, but fashionable just because it fits to their self-concept and individuality.

3.4.3 Situational factor (external characteristic)

Situation as a factor of consumption can noticeably affect and change the buyer's desicion. Time, mood, atmosphere of the purchase place can relate to this group of factors (Vysekalová, 2004).

Decision of consumer consists of product selection from the set of alternatives. Sometimes people prefer the fastest way of choosing instead of the more complex. For example, if the consumer does not have enough time, he or she will take into account only few comparing criteria of products.

3.4.4 Cultural factor (external characteristic)

Culture plays a giant role in life of individual. It is in every society, in every social

group. It is also very important reason of personal certain need and behavior. Influence of culture varies from country to country. County culture, family, friends etc. influence an individual and these groups can form individual's mentality and purchasing behavior. By this reason marketers should be very observant.

Culture is a mix of subcultures, which unite people by different interests, values, and experience. They can be based on religion, nationality, gender, age etc. it is a very useful tool for marketers as they can divide market into different smaller groups of potential consumers.

Culture changes. These changes affect the consumer behavior. In the beginning of the 20th century, women have been depending on men. During the year till nowadays they were becoming more and more independent, therefore their purchasing capacity became stronger. Another consumer group has formed.

3.5 Reasons for studying consumer behaviour

To sum up the part with the consumer behavior, it is good to mention that it is very useful to study it. There are some reasons below.

- Basic tool in marketing management, which helps with the market segmentation and positioning the product in the market
- Provides knowledge of human behavior

Knowing of the factors, which influence consumption helps us to understand, why advertising influence buying, and why some product is more attractive than the other to the individual. Being able to know these personal consumptional motives is nowadays part of being a versatile, well educated person (Mowen, 1987).

“The knowledge how individuals react to products, services and their marketing is the consumer behavior” (Kardes, 1999, p. 14).

3.6 Economical factors of consumption

The budget of a family – it is a balance of money expenditures with money income, characterizing the formed level of its living.

Income part of the budget consists of all incomes of all members of the family such as salary, bonuses, scholarships, pensions etc. Expenditure part shows spending on food and non-food products, taxes, accommodation etc. these two parts have to be balanced.

Consumer basket – it is the set of goods and services, aimed to satisfy the major physiological, social and cultural needs of an individual.

The attitude to demand prices of products depends on the consumer income. There are several types of income:

- Total income

Total income includes salary before taxes, donations, benefits and another material and money goods.

- Disposable income

Disposable or available income is the amount of money, which is left after taxes and mandatory payments.

- Nominal income

Nominal income is sum, which is obtained in unit of time.

- Real income

Real income refers to the ability of purchasing goods, taking into account the price changing. It can be affected by inflation rate.

- Monthly income per capita in a family

Income, which is referred to each member of the family in a month, calculating by dividing monthly sum of income of all family members by their amount

Keynes studied connection of income with consumption. He reflected founded patterns in psychological law. According to him the consuming tendency increases with the income

increase, but slower than the income. “Profitable human condition of an individual is defined by the size of income and also habits, traditions and psychological addictions. With the income growth, savings are also increase. Especially it is more common for families and adult people. How much they will save and spend depends on their lifestyle and situation.

M. Friedman in his concept of permanent income claimed that the size of consumption grows with the growth of income, not the current one, but the annual, permanent income. F.Modigliani in his theory of lifecycle claimed that there is 3 levels of consumption lifecycle:

- Young people, students have small incomes, in hope that, they make them bigger, they borrow money easily
- Adults paid for the loans and try to save more money
- In the old age the savings income can be not so big

3.7 Features of beer

Over the centuries, beer has become more than just a drink. It is a part of our customs, traditions and rituals (Janda and Mikolasek, 2011). Within this, it is really good reason to go out with friends.

From the economic point of view, beer is considered a normal good on which, however, one's income does not have a significant effect regarding its demand since it is inelastic (Colen and Swinnen, 2011). That means, there is no relationship between growth of economy or individual's earnings

3.8 Review of Russian alcohol market

3.8.1 Historical background

The majority of countries or regions in the world are known with the national alcoholic product. For example Germany and Czech republic are famous for their beers, France and Italy for their wines, Ireland and Scotland for whiskey etc. Russia is associated with the strongest alcohol beverage – for vodka. During different historical periods the typical Russian drinking culture was characterized by: “a predominance of liquors over other beverages, the consumption of large amounts of distilled liquors on one occasion, the disinclination to consume food when drinking, an initial determination to get heavily drunk, and the existence of many drinking traditions” (Zaigraev G., 2004).

Historically, alcohol in Russia was considered as a source of income. In the 16th century, Ivan 4 started opening taverns, in order to fulfill his treasures. By the middle of the 17th century, the third of Russian men owed money to these kabaks (taverns). In the second half of the 19th century 40 percent of country’s revenue were coming from consumption and purchasing, the national drink – vodka. At the end of Russian Empire and at the beginning World War I, there was the first attempt to reduce the consumption of alcohol beverages. The sale of hard liquor to restaurants was limited.

At the beginning of the 20th century, when the communists conquered the power, they also tried to reduce the consumption of alcohol in the country. However, due to the bad economic situation, Joseph Stalin brought back vodka to the state shops, in order to heal the economics and increase the revenue.

After Stalin and the World War II, all the next leaders of the Soviet Union tried to eliminate alcoholism. In 1985 Mikhail Gorbachev continued the fight with the alcohol. He implemented the partial prohibition, which started the massive campaign against alcohol. Within this he applied serious sanctions and penalties, which were forced to liquidate the public drunkenness and liquor consumption. His campaign was had temporary success. It reduced the consumption of alcohol per capita, made some values of life quality better, for example, decreased the crime rate and improved the life expectancies. The people did not welcome these restrictions and the alcohol won the fight.

3.8.2 Nowadays situation

Expenditures on alcohol all the time have been taking not the last position in Russian culture. However they rised up in last years. Despite the fact that Russia has the biggest vodka market in the world, many Russian people prefer beer or wine. Beer is becoming more trendy drink, as well as other drinks like whiskey and different cocktails are becoming more popular (Consumer trends. Wine, Beer and Spirits in Russia, 2012).

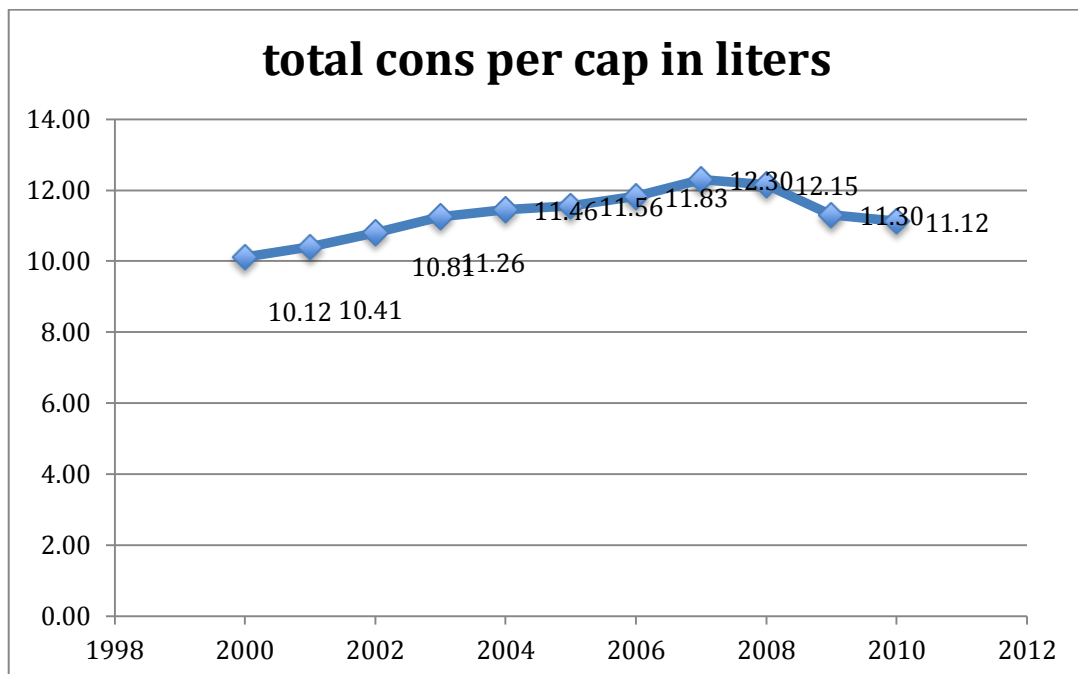


Fig. 2: Total consumption of alcohol in Russia

Source: http://data.euro.who.int/hfad/shell_ru.htm

3.8.3 Production of beer

According to Russian Beer Market Update (2016) the beer production in Russia has declined steadily since 2010 around the same time that the Russian government rolled out a strict anti-alcohol campaign which legally recognition of beer as alcohol drink; increased excise taxes for beer with alcohol content up to 8.6 percent; applied strict limitations to beer advertising; banned sale of beer in outdoor kiosks. From January-November 2015, Russian brewers produced 659.5 million deciliters of beer according to the Russian Federal Statistics Service (Rosstat) - 7.3 percent less than the same period in 2014. In 2010, production volume surpassed 1 billion deciliters.

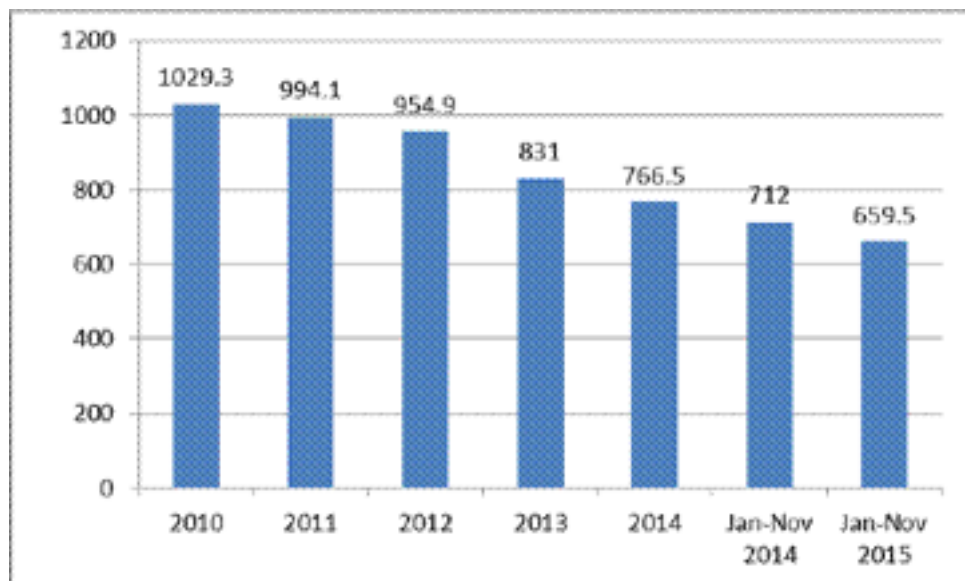


Fig. 3 Russian beer production in 2010-2015, Million Deciliters

Source: Federal Service of State Statistics of Russia (Rosstat)

3.8.4 Main players of Russian beer market

After the fall of the communism during the “crazy 90’s” all the industries of Russia and the economy as itself were at poor condition. Inflation, denomination made the small breweries bankrupts. The economic changes, poor legal system, reducing of grants and many many things had serious effect on production of malt and barley. The result was a decrease in production of beer. In addition to that, within the fall of beer consumption, incomes of people fell down as well.

However, this poor situation of the country formed the innocent and perspective market for Eastern Europeans’ companies. Their long lasting and rich beer heritage market with many years of experience in beer industry looked also very attractive for the “dying” Russian breweries. So they were “saved” by the three greatest European brewing corporations and on Turkish. They are:

- AB Inbev from Belgium
- Carlsberg from Denmark
- Heineken from the Nethederlands
- Efes from Turkey

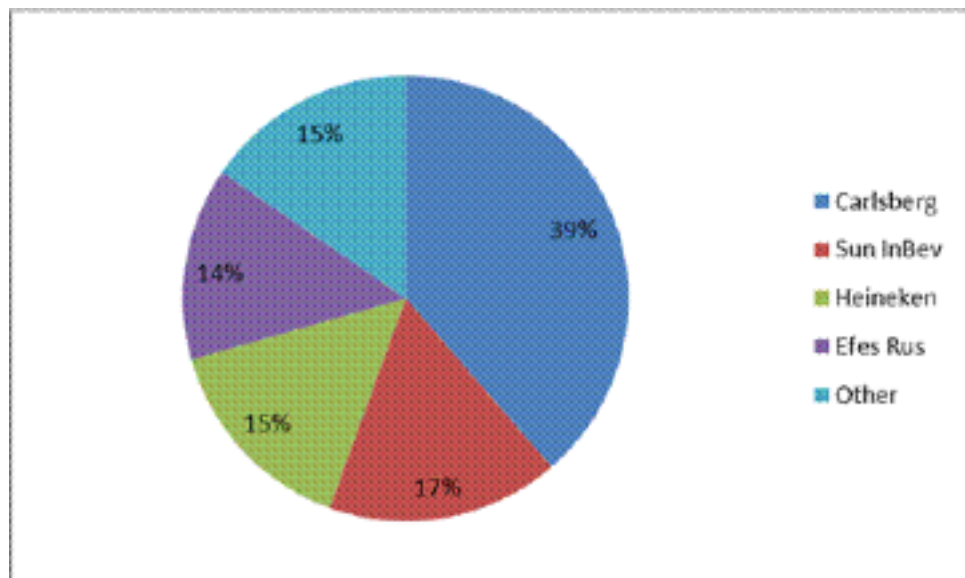


Fig.4 Key Market Players and Their Market Share in 2014

Source: Russian Beer Market Update, 2016

According to industry analysts, the beer giants have been losing market share to local mid-sized breweries whose share by the end of 2015 reached 26.5 percent. Local breweries are offering cheaper, more unique and interesting tastes of beer. This trend is helping the craft beer sector in Russia, which is growing and has about 3 percent of beer market share today (Russian Beer Market Update, 2016).

Russian beer companies, which are owned by foreign corporations their reven

Carlsberg A/S (Denmark) – revenue \$9.528 billion by 2014

- Arsenalnoye,
- Nevskoye,
- Yarpivo,
- Tuborg,
- Carlsberg,
- Holsten,
- Kronenbourg 1664,
- Grimbergen,
- Warsteiner
- Baltika brand (Baltic)

Efes Rus (Turkey) – revenue \$836.2 million by 2008

- Efes Pilsener
- Belyy Medved (White Bear)
- Sokol (Falcon)
- Staryy Melnik (Old Miller)

Anheuser-Busch InBev (Sun InBev) – revenue \$43.60 billion by 2015

- Stella Artois
- Budweiser
- Klinskoe
- Sibirskaya Korona (The Crown of Siberia)
- Tolstyak (Portly Fellow)

Dutch Heineken N.V. (Netherlands) – revenue €19.257 billion by 2014

- Heineken
- Bochkarev
- Okhota (Hunting)
- Pit
- Tri Medvedya (Three Bears)

3.8.5 Consumption of beer

Despite the fact that vodka is a traditional Russian drink, beer has become more popular, just because people see in beer a sort of soft drink. It is even thought as a „healthier“ alternative to spirits, promoting its daily usage. In the last 10 years, there was 40% increase in sales of beer, along with the 30% decrease in sales of vodka (BBC News, 2011).

However, in July 2011, Russian President Dmitry Medvedev signed a bill that officially classifies beer as an alcoholic drink. Previously, anything with less than 10% alcohol content was designated as “foodstuffs.” The new bill will control the sale of beer in much the same way as spirits, with new regulations that come into effect in 2013. The bill will prohibit the sale of alcohol through unlicensed kiosks (which reportedly represent at least 30% of all beer sales in Russia), ban retail sales of alcohol between 11:00 p.m. and 8:00 a.m., and restrict the advertising of alcoholic products (GlobalPost International News, 2011; BBC News, 2011).

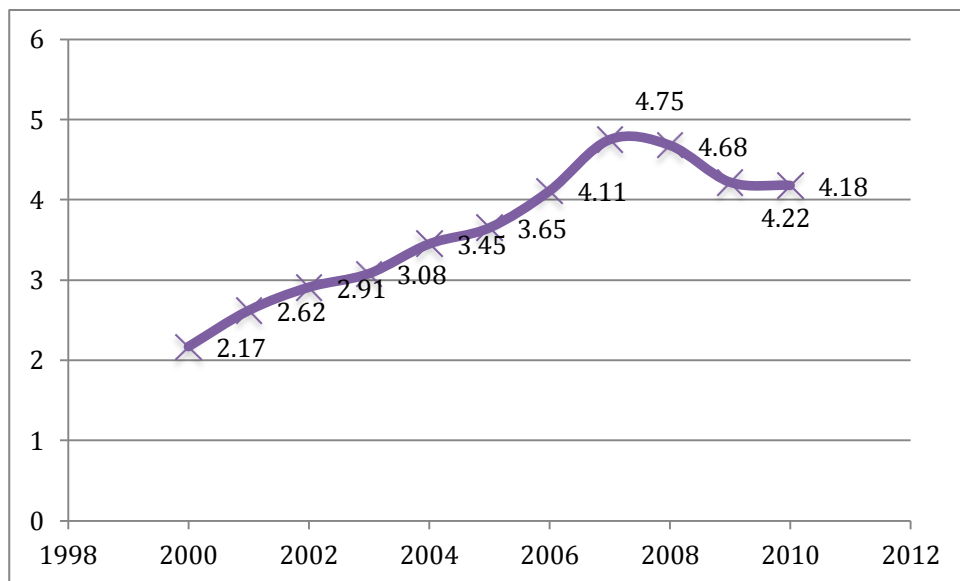


Fig.5 Consumption of beer in Russia

Source: http://data.euro.who.int/hfadb/shell_ru.htm

Till 2008 there was an economic growth in Russia, so that is why it is seen the peak of beer consumption. There was an increase in income of people as well. However, the regulations and prohibitions that have been implemented by Dmitry Medvedev, decreased consumption.

3.8.6 Beer sales

During 2010, off-trade format of beer sales in Russia has not reached even 10% of total sales. It is significantly less than in Europe. It can be explained as cultural difference. The way, how people see beer in Russia is simple, it is a product, which is for home consumption. Apart from this, the bar culture is still undeveloped and the prices are high (Consumer trends. Wine, Beer and Spirits in Russia, 2012).

On-trade versus Off-trade Split: Volume Sales of Beer in millions of litres						
	2005	2006	2007	2008	2009	2010
Off-trade	8,745	9,230	10,503	10,426	9,831	8,856
On-trade	813	857	896	893	823	761
Total	9,557	10,086	11,399	11,318	10,655	9,617

Table 1. Sales of beer in Russia

Source: Euromonitor, 2011

3.8.7 Wine market in Russia

Wine takes the third position among alcoholic beverages in Russia. According 2010, table wine has been leading with 64% share of the red wine market. This is likely due to the economic recession, as premium still red wine, and high-quality red wines saw their volume shares recede marginally. The same trend was found within the white wine and rosé markets, where table wine increased its volume share to 66% and 77%, respectively (Consumer trends. Wine, Beer and Spirits in Russia, 2012).

The quality of domestic wines is still not so good. Consumers prefer products from Italy, France or Spain. The wines from these countries are leading in Russian wine imports. The main importer among these countries is France.

However, during last 10 years the interest in wines from Australia and South America increased. This caused by better price-to-quality ratio comparing with the more expensive alternatives from Europe, that is why the interest to New World wines has risen . High-quality wines saw the strongest sales growth, as they allow consumers to trade up, while maintaining affordability. (Consumer trends. Wine, Beer and Spirits in Russia, 2012).

3.8.8 Consumption of wine

Despite the fact, that the wine only the third most popular beverage among Russians, they consume it more each year. However there was decline in 2006, caused by the low harvest season of grapes.

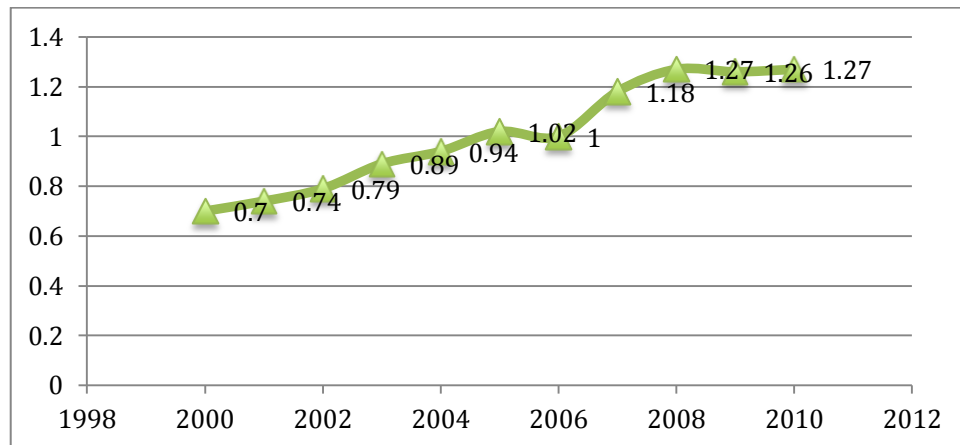


Fig. 5 Consumption of wine in Russia per capita (in liters)

Source: http://data.euro.who.int/hfad/shell_ru.htm

3.8.9 Sales of wine

Despite the fact, that the wine only the third most popular beverage among Russians, they consume it more each year. However there was decline in 2006, caused by the low harvest season of grapes.

Sales of wine in Russia is very diverse. There is no major leader in this area of market. According 2010, different small companies wine producers took the 70% of the wine market (Consumer trends. Wine, Beer and Spirits in Russia, 2012).

On-trade versus Off-trade Split: Volume Sales of Wine in millions of litres						
	2005	2006	2007	2008	2009	2010
Off-trade	984	961	1,054	1,089	940	927
On-trade	73	63	69	71	67	65
Total	1,058	1,025	1,123	1,160	1,007	992

Table 2. Wine sales in Russia Source: Euromonitor, 2011

4 Practical part

The practical part of given thesis includes some steps or parts. The first one and the most important one is a construction model, which is the key stage for the creation of the hypothesis and collecting data.

The survey is dedicated to the factors, which influence the consumption of beer. As the consuming behavior is ruled by different social and economic factors, the research identifies the relationship between consumption of beer and some economic factors such as production of beer and sale. In addition to it, the Chi-square tests are used to identify also the relationship between consumption of beer and some social factors such as age, education, religion, marital status, number of kids, preference in beer etc.

The next step is the collection of data and transformation it into coding matrix. After goes the statistical analysis, particularly linear regression model, with the help of statistical software Gretl. The linear regression model is aimed to identify the relationship.

The last step of the research is the evaluation of the results of statistical test. These results can show, whether there is a relationship between consumption of beer and economic factors, and between social factors.

4.1 Construction of the research model

In order to state the main hypothesis, creation of the research model is needed. It is also necessary to create the two phenomena, which are necessary for the questionnaire formation.

So the main hypothesis is that consumption of beer in Russia is influenced by social factors.

After the process of data from the questionnaire, there will be a possibility of creation an additional hypothesis. It will be done to test the relationship between consuming behavior and the beer consumption.

So the phenomenon A is the social factors. Here are the variables of this phenomenon.

- Age group

18-25, 25-29, 30-39,40-49

- Gender

Male or Female

- Education

High school, University education, No education

- Marital status

Single, Married, Divorced, Widowed

- Religion

Atheist, Orthodox, Protestant, Catholic, Muslim, Other

- Employment

Employed, unemployed

The data was collected by spreading the questionnaire via emails, through social networks (VK.com, Facebook) among 300 hundred Russians. However, only 218 respondents completed the form. All the respondents were asked the question “Do you drink beer?” in order to find which social factors are the most affecting the consumption of beer.

4.2 Testing of the relationship of beer consumption and respondents' age

Do you drink beer?\Age	18-25	25-29	30-39	40-49	Total
Yes	72	40	55	5	172
No	18	8	5	15	36
Total	90	48	60	20	218

Table 3. Cross table Beer –Age

Source: Self made

Chi-square test

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	6.308	4	.156
Likelihood Ratio	6.872	4	.99
Linear-by- Linear Association	0.223	2	.345
N of Valid Cases	218		

Table 4 Chi-Square test Beer – Age

Source: Self-made

0 cells have expected value less than 5. The minimum expected Value is 5.12.

H0: There is no relationship age and beer consumption.

H1: There is a relationship between age and consumption

Testing is at 0.05 level of significance. P- value is .156, which is more than the level of significance.

Zero hypothesis is accepted. There is no relationship between beer consumption and age.

4.3 Relationship between marital status and beer consumption

Do you drink beer?\Marital status	Single\ Partnership	Divorced	Married	Widowed	Total
Yes	88	14	47	3	152
No	41	0	24	1	66
Total	129	14	71	4	218

Table 5. Relationship between marital status and beer consumption

Source: Self-made

Chi-square test

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	5.054	6	.91
Likelihood Ratio	10.101	6	.236
Linear-by- Linear Association	6.802	1	.343
N of Valid Cases	218		

Table 6. Chi-square test of marital status and beer consumption

Source: Self-made

3 cells (18.6%) have expected count less than 5. The minimum expected count is 2.25.

H0: There is no relationship between the marital status and the consumption of beer

H1: There is a relationship between the marital status and the consumption of beer

Test at 0.05 level of significance. The estimated P-value is equal .91, so that means that there is a relationship between marital status and beer consumption. H0 is rejected.

4.4 Relationship between gender and beer consumption

Do you drink beer?/Gender	Male	Female	Total
Yes	93	42	135
No	22	61	82
Total	115	103	218

Table 7: Beer and gender

Source: Self-made

Chi-square test

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	5.054	8	.002
Likelihood Ratio	10.101	8	.058
Linear-by- Linear Association	3.463	3	.205
N of Valid Cases	218		

Table 8 Chi-square test of beer consumption and gender

Source: Self-made

0 cells (0.0%) have expected count less than 5. The minimum expected count is 5.48.

H0: There is no relationship between the consumption of beer and gender

H1: There is a relationship between the consumption of beer and gender

Test at 0.05 level of significance. Here the P-value is equal to 0.02. It is less than the significance level, so that means that H0 is reject. Therefore there is the relationship between genders and beer consumption.

4.5 Relationship between education level and beer consumption

Do you drink beer?/Education	High school degree	University degree	No degree	Total
Yes	74	58	26	168
No	28	24	4	56
Total	106	82	30	218

Table 9 Education- Beer

Source: Self-made

Chi-square test

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	8.321	7	.82
Likelihood Ratio	32.568	7	.000
Linear-by- Linear Association	13.835	2	.000
N of Valid Cases	218		

Table 10. Chi-square test of beer consumption and level of education

Source: self-made

6 cells (38.2%) have expected count less than 7. The minimum expected count is 48.

H0: There is no relationship between the level of education and the consumption of beer.

H1: There is a relationship between the level of education and the consumption of beer.

Test at 0.05 level of significance. P - value is equal 0.82, which means that there is no relationship between the level of education and beer consumption.

4.6 Relationship between religion and beer consumption

Do you drink beer?/religion	Atheist	Orthodox	Catholic	Muslim	Other	Total
Yes	30	18	49	0	36	133
No	25	35	16	13	7	97
Total	55	43	65	13	43	218

Table 11. Religion – beer.

Source: Self-made

Chi-square test

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	9.765	4	.034
Likelihood Ratio	6.142	4	.256
Linear-by- Linear Association	4.853	1	.673
N of Valid Cases	218		

Table 12. Chi-square test of consumption of beer and religion

Source: Self-made

3 cells (18.2%) have expected count less than 5. The minimum expected value 14.

H0: There is no relationship between consumption of beer and religion

H1: There is a relationship between consumption of beer and religion

Test at 0.05 level of significance. P-value is equal 0.34 so H0 is accepted so there is no relationship beer consumption and religion

4.7 The linear regression model

The function of regression model analyzes the determinants and shows, how they influence the consumption of beer.

$$y_1 = \beta_0 + \beta_1 x_2 + \beta_2 x_1 + \varepsilon$$

Where the dependent variable is

The consumption of beer, which is measured in liters per capita - β_1

The dependent variables are

The constant - β_0

The production of beer - β_1

Sales of the beer in millions of liters - β_2

Error term - ε

The basic data for the calculation was taken from the Euromonitor report 2011 obtain the years 2005 and 2010 the researchers analyzed the Russian trends in beer market within this period of time.

For the regression model, I took the difference between these 2 years. The calculation was focused only on Russian beer market, however there was not enough data, arising from the calculation. So the data about another countries was taken in order to have the proper amount for the next calculations

The data of consumption sales and production was taken from different sources. The variables are measured in different scales – liters per year per capita, , millions of liters etc. In order to make the calculations more understandable the values were converted in same ones.

4.8 Beer consumption function

Making the Ordinary Least Square Method (OLS) for the function of beer consumption gave

the function

$$\square_2 = -7.67941 + 0.00904068 x_1 + 0.328428 \square_2.$$

The dependent variable can be interpreted as if the sales will increase by 1 million 1000 hectoliters the consumption will increase by approximately 0.33 hectoliters of beer.

The variable X_1 is interpreted as if the production of beer increase by 1000 hectoliters 0.01 hectoliter of beer.

5 Conclusion and recommendation

In the beginning of the conclusion, it is good to mention again the aims of the thesis. The goals were to investigate the Russian beer market in order to find factors that influence the consumption of beer. During the observation, it is turned out, that the Russian beer market is young, fast growing and very perspective in order to join the market. However, the unstable Russian economy and strained relationships on political arena make it really challengeable for the foreign beer producers in order of importing their beer on Russian market. Within these excise policies, market regulations and attempts of government to reduce the alcohol consumption make the market also challengeable even for local producers.

According to the different reports from the different years it is set, that the consumption of beer in Russia depends on economical factors, such as production of beer, and sales. It is clearly shown at the practical part of this thesis. However, according to the theoretical part, where the consumption behavior of people observed, the consumption of beer can be affected by some social factors. It was proved in the practical part of this thesis as well as the economical factors. It turned out that factors like the monthly income of people, gender, and marital status affect the consumption of beer in Russia.

In the end, it is possible to say, that this work could be useful for those, who is interested in Russian beer market. For those, who do not know anything, it is a good start of studying it. After it, there will be easier involvement into more serious works about this topic. Especially this work might be useful for marketing specialists. Using this research they can use it as an example in order to find the most profitable area for their product.

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7 Appendix

Data, taken for the linear regression model

	Production (1000 hl)	Consumption (liters per cap)	Sales (1000 hl)
Russia	744	5.3	60
France	776	3.2	35
Denmark	2524	15.3	46

Questionnaire

1. Do you drink beer?

Yes

No

2. What is your gender?

Male

Female

3. How old are you?

18-25

25-29

30-39

40-49

50 +

4. What is your education?

High school

University degree

Not educated

5. You are

Single

Married

Divorced

Widowed

6. What is your religion?

Atheist

Orthodox

Protestant

Catholic

Muslim

7. You are

Employed

Unemployed

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