The development of decision-making mechanisms under a bilateral monopoly in the mining industry

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Development of Decision-Making Mechanism Under Bilateral Monopoly in the Mining Industry

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This thesis focuses on one main issue: how prices are set in the Russian mining industry under conditions of bilateral monopoly. The mining industry is a broad segment of the economy, with thousands of companies and millions of people employed. This makes it essential to understand how price decisions are made within the mining industry, as such decisions influence many aspects of the economy. By nature, the mining industry tends to operate in a monopolistic market, where one decision can influence the majority of other decisions made in the industry. Theory suggests that monopoly and its power can be very complex and could lead to many unpredictable outcomes. However, it has its own advantages, especially when there is a threat from possible competitors in the industry, including those who do not produce similar products but alternatives. Bilateral monopoly, in this case, can create a possibility for an organisation to influence price decisions. Finding the answer to such problem can influence future decisions in the industry and can guide mining organisation when it comes to making a pricing decision.

Investigation of literature and specific data from the industry built an argument, which created a base for the primary data collection. Monotowns, as a structure of the mining organisation, led to the specifics of relationships between citizens of monotowns, organisations and government. Harmonisation of bilateral relations within monotowns underlined the importance of such relationships. However, this does not answer the problem of this thesis. To find out why bilateral relations are important and valued and how such relationships influence price decisions, interviews with Russian mining organisations were conducted. Aiming to find the solution to the problem and fill in the gap in the literature, primary findings could not confirm nor disagree that strategic decisions in the mining industry can only be developed under bilateral monopoly conditions. However, it was found that different approaches under bilateral monopoly conditions could be taken by mining organisations to make important price decisions.

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Glossary

BRICS Countries - Brazil, Russia, India, China and South Africa

GDP - Gross Domestic Products

FDI - Foreign Direct Investments

SD - Sustainable Development

USSR - Union of Soviet Socialist Republics

Author's Declaration

I declare that all the material contained in this thesis is my own work.

1. Introduction

This research aims to investigate the mining industry, how mining organisation set their prices and what influences their decisions. The research aims to develop the idea of the price decision-making mechanism and find an answer to the question using related literature, theories, secondary data, and primary research. Therefore it is important to state the main research question and identify the aims and objectives of the research.

The research question is: ***How the pricing decisions in the mining industry are developed under bilateral monopoly conditions?*** At the same time, it is important to highlight the main objectives and aims of this research:

- Identification of the theoretical foundations of the decision-making process through analysis of competition theory and monopoly theory.
- Aims to link the theory of bilateral monopoly and secondary data in order to identify gap in the literature
- Investigate the mining industry operations, specifically:
- To identify the efficiency of operations of mono town structure and how this influences the development of mining organisation
- to identify the importance of innovation and development of technological and human assets
- Closely investigate the decision-making process under the bilateral monopoly in the mining industry using the case of a specific country and region and what influences this process.

The importance of each objective above as it makes a contribution to the originality of the study and identifies the structure of this thesis. Firstly, it is essential to identify the theoretical foundations of the process behind the pricing decision, as it provides a solid foundation for identifying what can influence it under the conditions of bilateral monopoly. Secondly, it is important to cross-check potential influences with secondary and primary data after identifying potential influences. This will create a base for finding gap in the literature, which will later help to find the answer to the research question. The third objective focuses on the 'how' question and explores, more specifically, on mono-town structure. It helps to answer the question of how efficient such a structure is and how it could influence the decisions that are made. Lastly, focusing on specific region and connecting theory, secondary data and primary data will give the researcher and

reader the answer on how exactly decisions under the bilateral monopoly condition can influence the industry. It is believed that this research will make the original contribution to knowledge and can be used in future in similar theoretical questions/research, as fundamental theories apply and can be transferred to similar industries/structures of the organisations.

The mining industry is a broad segment of the economy, with thousands of companies and millions of people employed worldwide, as well as an informal component known as traditional and small mining businesses, involving millions of people (Word Bank, 2020). The industry affects the interests of many players, including the government (which plays a key role as a regulator in enabling extractive companies to maximise their contribution to the economy), investors, contractors and suppliers, service companies, indigenous people and their organisations, settlements affected by development, labour unions, research organisations and consumers. The extraction and processing of minerals and metals has the same long history as the development of mankind. Factors such as population growth, urbanisation, social and economic development and even the demand for a green and low-carbon economy are driving the growing demand for minerals and metals (KPMG, 2020). However, meeting these demands and achieving the desired benefits requires costs on the part of the population and the environment (Satista, 2020). Therefore, it is important to investigate this matter, as this could lead to new openings and proposals for industries' future.

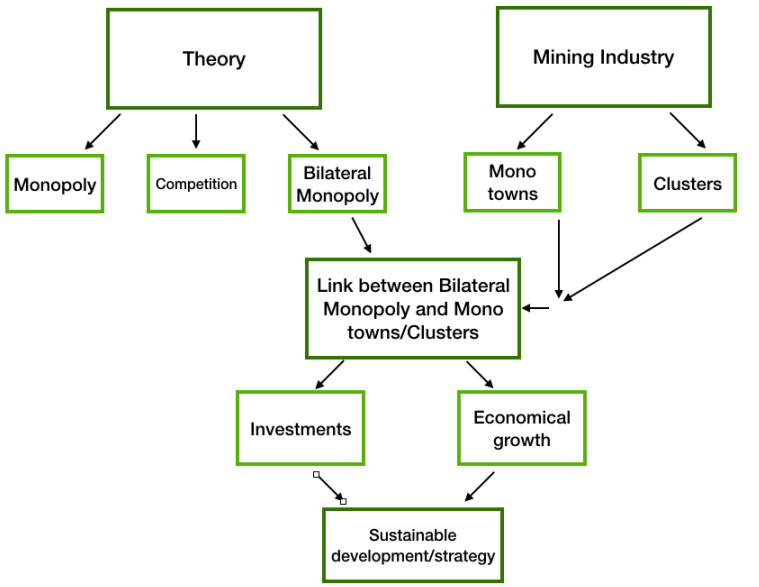
It is important to research main aspects such as competition theory and monopolistic market theory as this forms the base, which will help to answer the main research question. Moreover, the pricing decision process can influence many aspects of the economy. This can be on a small scale of a small region, town or, city or even a whole country, which can influence the whole price trend for the world. Therefore, it is important to understand the process of how prices are set in the monopolistic market and how this can influence the surroundings. To narrow down the global topic of the pricing decision-making process, it is important to choose the specific sector within the various sectors. This could help the author to find the solution to all research objectives & aims and, therefore, answer the main question. Naturally, organisation competes in order to stay profitable; various tools can be used, which include quality, technology, customer service and price. Choosing a specific sector or industry will help to focus specifically on related theories; it will be more realistic, can be easily applied to the theories and therefore will provide the author and reader with the answers. Out of many global sectors, one stands out in terms of success, power and complication. At the same time, the mining industry is very interesting to investigate for the researcher.

First, looking at the basic theories of competition and monopoly is important, as this can lead to further related theories that can help answer the research question. Therefore, the first part of the research focuses on the overview of the mining industry and is followed by more specific literature and theories. Considering the size of the mining industry, it is logical that such organisations work in cooperative relationships between all stakeholders, and such relationships are called - bilateral relationships. Working in cooperation leads to stable, long-term relations and provides with a specific type of power, which gives the ability to set and influence the price in the market (Nagle and Muller, 2018). It is important to look at pricing decisions, as they determine many factors, such as wages, GDP, raw material price, investments, and technologies. Therefore, the types of bilateral monopolies will be discussed in this thesis. Moreover, inter-related theories of bilateral monopoly and the structure of the mining organisations will be discussed in the chapters. This includes the link between monopoly and bilateral monopoly, bilateral monopoly and trade unions/resource marker/government and sustainable development of the organisation/region/ industry overall. The topic of the managerial decision-making process under the condition of bilateral monopoly is important to investigate, as the mining industry is one of the important assets of the economy for the country and the world overall. Every decision made by such an organisation can affect the world mining price; it sets the trend for the industry for future years and includes many dependent stakeholders (PWC, 2020).

The second part of the research analysed the importance of investments in the mining industry, the link between bilateral monopoly and mono towns, and the influence of unionisation power. Furthermore, the discussion of the main sources of competitiveness has been analysed in the last part of this thesis, and based on the literature, it is closely linked to the investments and natural sources of the land.

The mining industry is a very complex industry; it depends on the exact type of mines, and more importantly, it depends on the geographical region and country in charge. For this particular research, an overall analysis of the industry has been produced to better understand the theoretical fundamentals of the industry and the way organisations or even countries gain competitive advantage. At the end of the research thesis, the conclusion has been produced by analysing various academic sources and different data. Moreover, the limitation section highlights some of the barriers to the research and also gives an opportunity to research different aspects in future.

The diagram below outlines the main research points and highlights the importance of each theory used throughout the chapters.



Graph 1 - Main research points

The diagram illustrates the thinking process of the writer and the connections between theories and literature used in this research. Moreover, the relevance of such theories and literature is one of the reasons for exploring and explaining this. As for any business, and for mining industry organisations, the main focus is profitability and success of the business; therefore, they must be competitive in the market. Moreover, taking into consideration the specifics of mining organisations, they mostly operate as a monopoly market (Casson,1985). It is important to investigate the structure of the monopolistic industry, as this gives the theoretical foundation for future research and investigation of the main objective and research question of the thesis. Investigation of the related literature on bilateral monopoly and competition identifies the gap in the literature, which is important to investigate.

Following the literature review, the methodology chapter will be introduced to the reader to understand the importance of the literature review. This will also explain to the reader the methods that have been used to collect secondary and primary data. The second part of this thesis includes an analysis of the findings from the research, will give the answer to the main research question, and may be used in future by other related industries. Main research objectives not only included the identification of the theoretical foundation for the decision-making process under specific conditions but also focused on two other important aspects: analysis of the competition theory and the role of the monopolist in the market economy and the development of the ideas for improvement of pricing decision in bilateral monopoly conditions.

According to Burke et al. (1991), competition is the most important element of a present market economy, predetermining the greater efficiency of its functioning in comparison with the economy of centralised regulation. However, as Swan et al. (1974) stated, economic realities are such that competition itself takes various forms. At the same time, economic theory states, according to Motta (2004), that a monopoly in a market economy is an evil that must be dealt with in every way. Moreover, it as stated by Cristobal and Beizma (2006), the practice of economic life in Europe, for example, shows that the government specifically created and supported government monopolies, which in the market environment showed and do not show the worst results of their work (San Cristóbal & Biezma, 2006). Monopoly in the market, according to Fuller and Rapoport (1995), has its advantages, especially when there are real threats to the monopolistic state of the organisation from potential competitors, including those who produce not alternative goods but alternative products. At the same time, as specified by Chen et al. (2018), science practically did not pay attention to such aspects of this problem as a process, mechanism, or methods of making management decisions by a monopolist.

The decision-making mechanisms of the monopolist in the field of product policy, pricing, etc., as was definite by Bridge and Dodds (1975), are still unexplored. This problem is particularly accurate for the domestic economy in the case of a bilateral monopoly - when there is only one producer of goods and only one consumer on the market. Matsushima and Zhao (2018) discovered that there are quite a few such cases in the domestic economy since the concentration of production at one organisation was the strategy of many countries. Often bilateral monopoly can occur when only one organisation produces some intermediate goods (raw materials and materials, equipment, components, components and parts, etc.), that are also needed by only one organisation (Matsushima and Zhao, 2018).

Based on the research of various authors, including Levitskya et al., 2017; Shastikov & Fatikhova, 2015; Maksimova, 2015 and Satubaldina (2015), mining organisations tend to be located in the ‘single-industry towns, therefore it is essential to investigate. Moreover, it is important to develop a logical connection between bilateral monopoly and mono towns.

Furthermore, it is valid to develop the idea of the investments, as according to Babcock, 2018; Dessureault & Scoble, 2013 and Gregorio, 2015, it gives an opportunity to mining organisations to develop technologies and invest in education and social aspects. The importance of these factors is that they provide a source of competitive advantage and give more options for strategically forming the business.

To make the research more specific, the researcher has chosen one particular country - Russia from the BRICS association of five major emerging national economies: Brazil, Russia, India, China and South Africa. The main reason behind the decision is that BRICS members are all developing or new industrial countries; they are distinguished by their large economies and have significant regional and, in some cases, global influence (Finardi, 2015). Moreover, it focuses on the positive FDI flow between those countries (Vijayakumar et al., 2010), which helps to balance out infrastructure, make size and labour cost. Furthermore, Vries et al., (2012) highlighted the structural transformation and positive outcome, especially productivity growth within those countries. Moreover, the researcher decided to focus on a specific region of Russia - the Ulyanovsk region. This was done to narrow down the research to find the answer to the research problem.

This research chapters concentrates on the specific outcome, where the researcher aims to find the solution to the problem. A specific focus on the mining industry helps to narrow the research theories and focuses only on the important aspects of the industry. The mining industry is monopolistic, moreover due to the nature of the business is working under the conditions of bilateral monopoly (Casson, 1985). Therefore, the problem is improving the mechanism for making strategic managerial decisions in the conditions of a bilateral monopoly, the solution of which will make it possible to increase the efficiency of such organisations.

In order to make the research valid and show the contribution to knowledge, the researcher must identify the gap in the literature. Therefore, an overview of the mining industry is essential, as it gives the opportunity to select related theories that can be used to meet the objectives of the research and help find a solution to the research problem. The structure of this thesis helps the reader to understand the importance of the mining industry for the country and world, explains the reasons on specific literature used and provides with guidance for tools that can be used in order to make the decisions on price set. In order to explain the importance of the mining sector analysis and how this helps to find the solution to the research problem, a case study of one proposed country will be used. It is important to use case studies of leading mining countries, compared to small-scale ones, as this would give a better understanding of the research problem and, therefore, the solution can be found and justified. It is essential to use a country with a long-term mining history of success, as a lot of data is available for research and analysis. Countries with mines such as gas/oil/coal/gold work both for external market and internal use; therefore, this will give a clear picture of how prices can be set in both directions and how this affects society and the world. The importance of the mining sector in one specific country is due to be explained in the next chapters and will be followed by a literature review of the related and important theories.

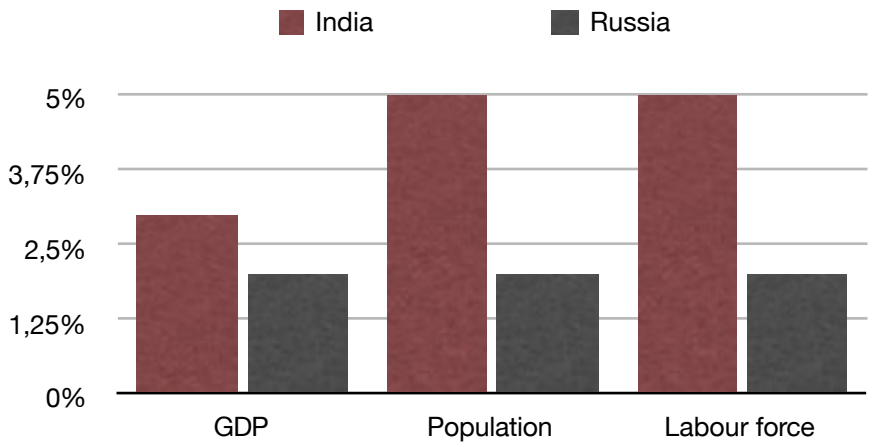
2. Mining industry overview

According to PWC (2019) and based on the analysis of 40 leading global mining organisations, total revenue for 2019 achieved the point of 683 billion US dollars, which is 8% growth compared to the past year. At the same time, expenses increased by 8,6% compared to last year, mostly because of the increase in spending on commodity production costs. Moreover, there has been an increase in capital investments for the first time in the last five years, but this indicator continues to be lower to the crisis level of the year. The above positive trend includes variables such as development and actual use of new technologies and investments, which decreases expenses on the extraction of mines, reduces the overall time and costs in the long run and therefore increases the profits (Mardonova and Chol, 2018). Sustainable development of the mining sector is highly important, according to Corder (2017). However, the implementation of different strategies may be challenging for mining organisations. This included technological implementation (Budnik & Chernyi, 2016), job security, health (Johnson et al., 2018) and economy overall. Yan et al., 2019 Ali et al., 2017 and Humphreys, 2019 agree on the positive rise within the mining industry over the last 20 years. Consumption of the products increases in the world and technologies help to utilise a wide range of minerals. However, according to Yan et al. (2019), mining organisations shifted from large-scale expansions to more careful investments, regulations were tightened, and the trend of shifting from the customer base to emerging economies has been highlighted. Moreover, due to different barriers, including sanctions, an unstable economy and even a global pandemic, the mining industry will experience significant changes in the near future. The above, according to Lozhnikova et al. (2018), has a massive effect on pricing policies, global market trends and sustainable development.

2.1 Geographical data

To start the overview of the country, it is important to understand the main characteristics of the nation, including economic aspects, unemployment and employment rates, labour force and population. Before analysing one specific country, the researcher decided to present the 'at a glance'

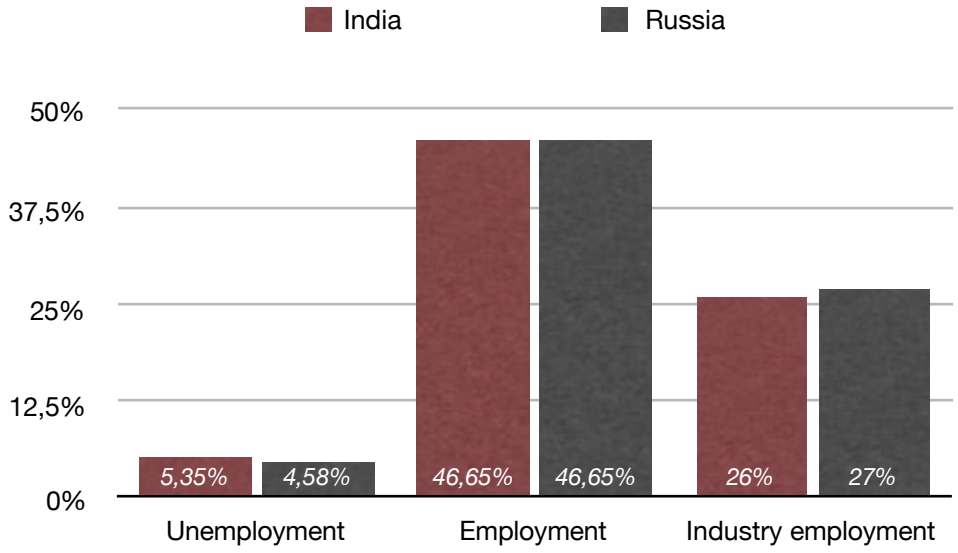
view of two BRICS countries. Decisions have been made towards India, as initial research showed multiple similarities in which the mining industry operates. The first bar chart (graph 2) represents the percentage for each chosen country from the world's GDP and Population for 2018 (The World Bank, 2020).



Graph 2 - GDP, Population & Labour Force

One of the key and most common indicators of a country's development is GDP per capital, which is the ratio of the volume of the economy to the population. There are no countries where this indicator is low and the income level of residents is high. If the economy produces few goods and services, then high salaries and pensions simply have nowhere to come from. As per data given by the World Bank (2019), India's indicators compared to Russia are higher in all three aspects, including a GDP of nearly 3 billion. At the same time, the population and labour force in India are way greater than in Russia. However, on the bar chart 3 (below), unemployment in Russia is lower than in India; therefore employment and employment in the industry is slightly higher. A glance view between Russia and Indian gives an ability to the research to use common theory and

apply it specifically to the country and answer the research question. The next chapter will give a more informative view on a specific country - Russia and the researched region - Ulyanovsk.



Graph 3 - Employment & Unemployment & Employment in the Industry

2.2.Mining industry in Russia

Mining and manufacturing are the most important sectors of the Russian economy, in fact, due to their share of income in Russia's GDP, ensuring the existence of most other industries. Dorian & Humphreys (1994) highlighted the significant dependence between natural resources and the economic development of transitional economies. In particular, only export revenue from the sale of minerals, primarily oil and gas, as well as manufacturing products, excluding food and light industry products, exceeds 70% of total exports in Russia. (Rosstat, 2018).

The late 20th century could be considered a transformation period for the Russian mining industry (Artemiev & Haney, 2002). After the fall of the USSR, Russia started to develop its name in the world as an independent provider of mines with a massive resource is hidden in and on the lands (Siegelbaum, 2007). However, as Bursanov et al., (2019) explain during this transactional period, Russia suffered challenges from ex-union countries in terms of the agreements, and in the end, the country succeeded, and everyone acknowledged Russia as a fairy considered player. Osvaldo (2013) and lately Alekseeva (2017) confirmed that only in the second half of the 2000s, projects began to be implemented to create new manufacturing industries and explore new mining areas. The new era of industrialisation was a way to move away from capitalism and at least be at the same level as Western countries (Kondorskiy, 2017). An exception is the oil and gas sector, in

which active work is constantly underway to establish new fields, including on the shelf (Kontorovich et al., 2014).

In addition, Peshkova et al. (2016) explained that the lack of development and significant obsolescence of technologies should be noted, especially in the non-ferrous metallurgy and coal industry, which does not allow Russian producers to compete on equal terms with the largest global concerns. Moreover, Vartanov et al., (2018) explained the lack of risk and safety management within the mining and at the same time Frolova et al., (2017) explained the importance of the development with human capital, not only technical improvements. However, the re-equipment of organisations is gradually taking place (mostly implemented in oil refining), which leads to increased competitiveness of products (Sidorenko, 2017; Gokhberg et al., 2020).

The mining industry in Russia is a major part of the Russian economic development. Oil, gas, coal, ore, precious and semiprecious metals provide a massive share of revenues to the Russian budget (RosStat, 2017). Russia is in a geographically advantageous position, and its relief is represented by lowlands, plateaus and mountain ranges. All this has led to the emergence of a huge amount of minerals and, as a result, the development of many businesses. One of the biggest milestones is mining, which is now one of the most important economically for the country and for the world. Shavina and Kalenov (2017) suggested the idea of transitioning towards innovative economy. Such an innovative economy can be achieved through technological development in the mining industry. So far, it can be confirmed that

Russian mining organisations have achieved tremendous success in all sectors, and the level of mineral extraction has put Russia on the list of leading countries for the last decades (Bradshaw and Connolly, 2016).

The mineral resource base of the Russian Federation includes:

- Ferrous metallurgy
- Non -ferrous metallurgy
- Gold
- Diamonds
- Coal
- Building materials
- Oil
- Gas

Ownership of the mining industry in Russia is divided into two ways: private (corporations or sole ownership) and public (government). However, at the same time, sole owner of all bowls of

the earth is government. In the early 21st century, according to the World Bank, the private sector controlled a substantial share of the Russian economy, and according to Guriev and Rachinsky (2004), it was papered the private sector operates more efficiently compared to the government. Liljeblom et al., (2017) confirmed the trend of ownership and suggested that government ownership has a completely different effect, especially the prioritisation of employment, but not economical optimum. At the same time Maga et al., (2019) highlighted the impact of the government ownership focus on finance, politics and economies only.

2.3.Russia - Ulyanovsk region

Ulyanovsk region is located on the river Volga and is well known for the place of birth of the Soviet leader Vladimir Lenin. Located on the longest river in Europe, connecting multiple cities from Central Russia to Southern Russia and flowing into the Caspian Sea, it gives a massive advantage of possible movements of goods through the river to several destinations. Moreover, Ulyanovsk is a developed industrial centre, and the basis of its economy is formed by aviation, automotive, engineering and metal works. The population of the region itself is 625 462 people based on calculations in 2021 (standata.ru, 2022). According to official data of the regional statistics, 25% of the population in the region is employed with industrial organisations (rosnedra.gov.ru,2021). The region itself is rich with several mines, including oil and natural gas, oil shale and peat, as well as building materials: diatomites, tripoli, flasks, clays, sands and sandstones, and mineral paints. Moreover, numerous clay deposits have been found in the region over the last few decades. They are used as raw materials for producing red bricks, tiles, dishes, facing plates, tiles, art and other products.

Ulyanovsk region is considered to be a good fit for this research due to various factors such as the ability to extract multiple natural resources from the ground, its geographical location and the percentage of the population working in the industrial sector. The researcher will discuss the region specifications in more detail in chapter 14 of this research paper, which will explain more in specifics the chosen case study town and provide with clear relevance and with more in-depth understanding of various aspects.

An overview of the country and industry itself helps to find the related theories and explore them throughout the research. The researcher has decided to start firstly with a clear identification of the mining industry, which operates under a monopolistic market. Secondly, continue with the competition theory and its variations, including price and non-price competition and methods of gaining competitive advantage on a different scale, and thirdly, with the basics of bilateral monopoly. The use of the theories above gives an opportunity to answer to the research question -

managerial decisions in the mining industry under the conditions of bilateral monopoly and price decisions. The researcher used India and its economic data as a reference from the BRICS countries, as the similarity of operations justifies the transferability of this work.

In order to fulfil the first objectives of this research and to understand the structure of the mining industry, the next chapter will focus on a theoretical basis, specifically on monopoly and the power of monopoly.

3. Monopoly

According to Scott Gilbert, monopoly is the market structure which assumes that one firm is the only manufacturer of a product that has no analogues. At the same time, Zeuthen (1930) specified that buyers do not have a choice, as there is no product differentiation, and are forced to purchase goods from a monopolist. Due to the fact that the penetration of other companies into the industry is difficult, the company represents an entire industry (Gilbert, 2017).

There are three main types of conditions under which a firm becomes a monopoly supplier of products to the market: a closed, natural, and open monopoly. According to Bieri and Schmitz (1973), a closed monopoly is a monopoly that is protected from competition by legal laws, and the firm has the exclusive right to a certain type of activity.

Natural monopoly was explained by Sharkey (1982), and it is a monopoly arising from objective reasons: the company owns either a unique production technology of a product and its average costs are minimal or unique natural resources. Moreover, Mussa and Rosen (1978) explained the term open monopoly. It is a monopoly arising from the entry of a company into the market with new products. It does not have any special protection from competition. At any time in the market may appear a competitor. This classification is very conditional, and many firms can belong simultaneously to several types of monopolies. As it was proposed by Li and Shuai (2019), the monopolist firm is in a unique economic position, as it fully controls the volume of output of the entire industry. Making a decision to raise the price of goods, it is not afraid of losing part of the market, and is not concerned about competitors setting lower prices. However, Bose et all (2006) stated that this does not mean that a monopolist firm can charge very high prices for its products in order to maximise profits due to the government regulations, laws and common sense.

Economic literature presents various approaches to the definition of the term "monopoly". Moreover, theorists such as Graeme Gill (1982) and Otto Pick (1986), reflect the essence of the term within the framework of the capitalist system, while others adhere to a non-historical approach to the definition of a monopoly; still others require a revision of this category due to the fact that it has little use in analysing the current situation. It is necessary to determine the amount of knowledge about monopoly, which is adequate and could be useful in present days.

3.1. Functional Theories of Monopoly

The basis of monopoly theory was created by the French economist and mathematician Antoine Cournot in 1838. He applied differentiation in economic theory and derived the condition for profit maximisation by creating monopoly conditions - that is, the equality of marginal revenue (MR) and marginal cost. . (MC). Cournot proposed the theory of a duopoly (bilateral monopoly), when two sellers work in the market and sell their products at prices set by buyers. In Cournot's model, an equilibrium point is reached where the duopoly sells equal quantities at a price that is somewhere between the monopoly price and the price prevailing under perfect competition, where the number of sellers is infinite. However, the application of the Cournot duopoly theory in the market is possible only in exceptional cases (Daughety, 2009).

A different approach to the theory of duopoly was proposed by the French mathematician Joseph Bertrand during the 1880s. According to Bertrand (2006), one firm can adopt itself to the position of another in price selection, and competition between two firms leads to the disappearance of economic profits. However, this concept is not 'working', as it is confirmed by the actions of duopolist only in some cases (Dimand & Dori, 1999). In 1897, the English economist Francis Edgeworth pointed out that the above situations are uncertain only to the extent that rivals are not inclined to go. Therefore, he proposed a curve of transactions reflecting the geometric location of the points of gain on both sides. Ultimately, the possible combination of exchanges depended on the ratio of market forces. Edgeworth's decision for the case of a bilateral monopoly varies between competitive and monopoly prices (Levitan and Shubik, 1972). Moreover, In 1920, the English statistical economist Arthur Bowley (1928) wrote that duopoly leads to disequilibrium and price instability. Each of the two competitors, acting as a leader, seeks to subjugate the other. In this case, the volume of supply will be determined on the basis of market demand and own costs. Competition in the final case will lead to the establishment of a monopoly by eliminating one of the competitors. From the point of view of a

combination of theoretical and empirical research, Bowley stood closer to reality (Turnbull, 1983). Subsequently, J. Hicks and W. Fellner proved that the equilibrium of exchange is determined in the case of perfect competition. The scope of uncertainty expands with a decrease in the number of counter-parties (Hicks, 1993).

The problem of the two monopolies was addressed by Alfred Marshall (1994), who noted the lack of a universal solution and the inability to determine exactly where the price of the final product will be established. For the first time in economics; competitive supply and demand curves were used to develop the Marshall market price theory. The mechanism of competitive curves was used to analyse this form of market as a monopoly. Marshall noted the trend towards the formation of public enterprises. He suggested the possibility of the emergence of a fairly reliable scale of demand, which would show on the charts the magnitude of consumer surplus resulting from a particular course of action of the state and private entrepreneurs. For Alfred Marshall, monopoly was not the market structure that could seriously affect the efficiency of the economy (Bankovsky, 2018).

In contrast, the Italian economist V. Pareto proposed to solve the problem of monopoly with the help of the indifference curve: the gross revenue curve should relate to the indifference curve above the others for profit. Moreover, English economist P. Sraffa presented a number of specific markets as an object of research. He was the first economist in the West who considered the price mechanism considering the starting point of the study of monopoly. At the same time, to describe the price mechanism, Joan Robinson used the concept of monopoly in the literalsense, meaning only one seller (Robinson, 1986). Her monopoly is presented as a result of product differentiation and the absence of substitute products. However, for Edward Chamberlin, monopoly meant "control over supply and thus over price" (Chamberlin, 1959, 38). He saw the problems of the theory in a more correct explanation of reality, "considering not two distinctly different and mutually exclusive categories, but the continuum between two points".

3.2 Monopoly power

Monopoly power is the ability of a monopolist to set price on goods or services and ability of changing its volume, which monopolist is willing to sell, whether the price is higher than its marginal cost. The main concept has been introduced by Lerner (1934) and later it was explained and applied by various of authors including Mainwaring (1977); Elzigna and Mills (2011) and

Stano (1976). The degree of monopoly power of an individual seller depends on the availability of close substitutes for its products and on its overall sales in the market. The ability to control a monopoly of power does not mean that a firm should be a form of a pure monopoly. As a prerequisite for monopoly power, the demand curve for the products of the dynasty firm had a downward slope. In this case, the firm has the ability to raise or lower the price for its product by changing the volume of the product it offers. If a competitive firm can maximise profits by limiting its output, then the monopoly firm can achieve its goal by covering either output or price levels. The problem of the impact of monopoly on the behaviour of the firm follows from the theory of monopoly demand, which was explained by Harris and Raviv (1981). Since the monopolist is the only producer of this product, the demand for its product will coincide with the market demand, and the demand curve for the production of the product by the monopolist will coincide with the market demand curve, which is decreasing, and the sales volume can be increased only by lowering the price. As a consequence, the marginal income will be less than the price of the product.

However, the negative side of the monopoly power must be considered as well. Damage caused by a monopoly (the social cost of a monopoly) is the loss to consumers and society in net utility arising from monopoly power in the market. The qualitative failure caused by the monopoly was first introduced by the American economist Haberler (1954). Furthermore, the 'social cost' concept has been explained by authors including Cowling and Mueller (1978), Littlechild (1981), and Stegemann (1984). The theory by the above authors suggests that if, in a competitive market, the price is equal to the marginal cost, then in a monopoly, the price is the marginal cost. Consequently, monopoly power leads to higher prices and a reduction in output. As a result, consumer welfare deteriorates and the welfare of monopoly firms increases.

Further researchers of the problem of market power relied on the theory proposed by Lerner (1934). Theorists developed certain aspects of the acquisition, maintenance and use of market power. A special contribution to the consideration of issues related to barriers to entry of firms into the market was made by Bain (1941), who proposed his own classification of barriers facing firms entering markets. The main idea of Bains' theory is allowing existing firms to receive excess profits without fear of competitors entering. According to Harris (2002); Dess (1987) and Shmatko et al., (2019), factors of an objective or subjective nature that prevent new firms from organising profitable production in the industry is one of the entry barrier to the market. Based on works by Spence (1975); Dixit and Stinglitz (1977); Dixit (1979) and Galbraith (1936) entry barriers can be structural in nature. This is due to the characteristics of a given industry and market (production technology, start-up and operating costs, output volume, market maturity and development, type of competition), or determined by the behaviour of economic entities

(including anti-competitive actions (mergers and acquisitions) and agreements). As it was explained by Caves and Porter (1978) entry barriers can be divided into two large groups: strategic and non-strategic barriers. Non-strategic (or structural) barriers are an external reality for any business entity. Non-strategic barriers associated with the fundamental conditions for the functioning of the market are of three main types: administrative (government), institutional and social-economical. Barriers to entry into the market are caused by the actions of government authorities at all levels in the process of state regulation of the economy (licensing, taxation, price fixing, government aid to certain entities). It is the presence of barriers to entry, combined with a high level of concentration of producers in the industry, that enables firms to set prices above marginal costs and receive positive economic profits not only in the short term but also in the long term, which determines the bargaining power of these firms. More specifically, taking into account mining organisations, such industry according to Singh et al., (2020), experience barriers, including regulations to the access and ownership of the resources, barriers to getting permits to operate on a certain level and sanctions for the actions of the mining organisations or ability of getting special conditions on specific operations. Such barriers nature of regulation has a number of significant negative consequences. First, it leads to serious economic losses to society, both directly (growth transaction costs/increase in costs/increase in prices), and indirectly, due to the underproduction of GDP due to inefficient use of resources. Secondly, this gives an opportunity for the government authorities to manipulate and create an atmosphere of systematic distribution of power, which leads to negative economic effectiveness (Dutt, 1984). As explained in chapter 3 and will be discussed further, government in both Russian and India set specific barriers on the allocation of the resources and its limitations to use, which leads organisations to use the theory of monopoly power, and this affects the offer price, which is made of production cots and mark up for profit purposes.

Furthermore, it is important to consider the socio-economic barriers faced by such organisations. According to Helbirg & Balietti (2011) and Hilson (2002) barriers are associated with the capacity of industry markets, which can be determined by the high saturation of the market with goods or low purchasing power. Taken together, this makes this product market unattractive for new organisations due to the low level of profitability, high level of competition and investment risk. This type of barrier is typical for countries with developed market economies. Therefore, this is applicable to the Russian market, and therefore, it is important to investigate this matter.

The most important part of the monopoly power is the strategic barriers. Strategic barriers are created by the conscious activity of the firms themselves, by strategic behaviour that prevents new firms from entering the industry. According to Salop (1979); Geroski et al., (1990)

and Harrigan (1981), these include such activities of firms as 1) innovations, 2) long-term contracts with resource suppliers, 3) obtaining licenses, patents for the specific type of activity, 4) preservation of unused capacities, as well as all methods of increasing the minimum effective volume of output for the industry: an increase in advertising, marketing research, the costs of creating a company's image. Based on the studies of Morozov and Pavlova (2019), strategic barriers can also be manifested in pricing and sales policies and peculiarities of manufacturers' activities as holders of patents, licenses, and trademarks. The presence of strong business ties and informal relationships with suppliers of resources and buyers of goods also plays the role of a strategic barrier.

Strategic barriers include pricing trends and restrictions for entry. According to studies by Baumol& Willig (1981); Dixit (1979) and Caves & Porter (1977) those firms already in the industry, knowing aggregate demand and aggregate supply, can set a price that can prevent unwanted new competitors from entering the market. This pricing policy is called entry restriction pricing. In order for the leader firm within the industry itself not to incur losses, it must have a very significant cost advantage. Moreover, according to Bromwich (1990) it is important to consider all organisations in the relevant market. Therefore it is important to invest into innovations and have good partnership relationships with stakeholders. The presence of barriers to entry increases the monopoly power of the old firms and, therefore, profits. However, in practice, strategic barriers are rare (Zollo, 2009). This is because investments in the creation of strategic barriers made by one firm in the industry have significant positive effects on other firms in the market. Therefore Plotnikova et al., (2015) suggested that if entry is successfully prevented, then all firms in the market benefit, regardless of whether they have invested in creating a barrier. The presence of a positive external effect creates a free rider problem on the part of older firms in the industry. Each firm relies on the other firm in the industry to make the strategic investments it needs and to use the benefits.

The above theory and literature give an opportunity to the researcher to make a connection between monopoly power and mining organisations. As was previously discussed at the beginning of this chapter, mining organisations tend to be monopolistic in nature, and therefore, they follow the rules of the market or create such rules, depending on the specific circumstances (Casson,1985). Based on the theory, in order for an organisation to stay monopolistic, it needs to strategically take actions in order to protect the territory and reject the entry of the new firm. Therefore, mining monopolistic organisations can use the power of innovations and advanced technologies. Manu & Sriram (1996) and Camison & Villar-Lopez (2014) agreed that innovations within the organisation favours technological innovation

development and therefore performance of the organisation takes the superior form. According to Hitomi (2017) traditional manufacturing is based on production lines with limited flexibility. In comparison, Cagliano & Spina (2000); Wang & Chin (2008) and Lei et al., (1996) confirmed that advanced manufacturing is flexible, more efficient, effective and responsive. This is beneficial for organisations, as innovation in technologies offers support at all planning levels, including supply chain, network design and network design (Neumann et al., 2002). This can be wise managerial decision that can be achieved in operation with all related stakeholders. However, advanced technology production, according to Dunne and Schmitz (1995), requires a skilled and well-educated workforce. Therefore, it can be suggested that mining organisations with more advanced production methods bear lower production costs and automatically gain a competitive advantage. This competitive advantage influences the managerial decision on how such organisations set the prices on mines or products, therefore they influence the whole mining industry and global market. Moreover, this advantage over competitors also sets the price for the labour and influences the economy of the region/country. It is highly important to understand the relationship between the power of competition and how it can be used in order to become the only organisation with no competitors and the freedom of decision-making. However, it is also important to remember the global market and organisational decisions on price must be carefully considered. In order to succeed mining organisations must consider their competitive advantage not only locally, but globally, as this will influence the industry overall. The puzzle of how organisations want or choose to make a decision on pricing is not clearly identified in the current literature. Therefore, various of different theories must be considered. According to Obigbemi (2010), pricing decisions are a crucial step on all levels, and this is important because, if management makes a wrong decision, this can lead to a price change to the world, and consequences will be laid on the organisation, country, labour and wages and economic as a whole. Moreover, Slade (2004) argues fact that mining organisations focus on profits, market share and risks, therefore able to gain market power. This will be further discussed in chapters 10 and 11 of this research paper.

The ability to gain market power can be beneficial for the mining organisation. However, it is important to understand the theory of competition and create a strategic plan on both non-price & price competition, and this will be discussed in the next chapter.

4. Types of competition, its values and patterns

As an economic phenomenon, competition appeared during the establishment of trade relations and acquired its usefulness with the emergence of free market relations (Motta, 2004). At the same time, the theoretical propositions about the driving forces of competition appeared. The main appearance of this is classical political economy, and its main representative is Adam Smith. He considered competition as a matter of course, permeating all sectors of the economy and limited only by subjective reasons.

Adam Smith identified competition with the "invisible hand" of the market - automatically the equilibrium mechanism of the market. By equalising profit rates, he proved that competition leads to an optimal distribution of labour and capital to the regulator of private and public interests (Smith and Cannan, 1976). Adam Smith believed that the goal of an organisation is to get as much profit as possible, and it is driven by human motives. The laws of the market will force the organisation to produce not any products, but only those that are needed by buyers and to sell them at the lowest possible price. Only in this case it will be able to defeat its competitors and get the maximum profit. Thus, although the organisation does not think at all about the welfare of society, nevertheless, its egoism benefits all because it provides an abundance of goods and services of better quality and at lower prices. (Smith and Cannan, 1976).

In a broad sense, Hunt (2000) specified, "Competition theory" is a competition between different people, who tries to achieve the same goal. In organisational activity, A. Marshall, J. Schumpeter and M. Porter identified competition as a rivalry between economic entities in which the independent actions of each of them exclude or limit the ability of each of them to unilaterally influence the general conditions of circulation of goods in the relevant product market. Perfect competition, according to Adam Smith's theory (1976), does not exist. It turned out that it was impossible to free the government from interfering with market processes. Contradictions between employees and owners of capital forced, in the end, the government to adopt certain regulatory laws. (Smith and Cannan, 1976).

Various authors have described competition theory in the past, however it is still one of the most important aspects of the business operations nowadays. Fuertes et al., (2014); Ahn (2002) and Swinton (1977) explained that competition could be in the form of labour market, competition

between countries, market competition, product competition, innovational competition, technological and so on. In the conditions of a modern market economy, the sphere of business, one way or another, is regulated by a unified government economic policy. According to Bennet (2005), one of the most important areas of such regulation is the promotion of competition and the creation of a favourable competitive environment. At the same time, Enright (2000) emphasised the importance of the globalisation of competition by creating a competitive advantage on the local level. Pergelova & Angulo-Ruiz (2014) and Mowery & Oxley (1995) highlighted the involvement and importance of government within the competition. Government influence, policies and financial support enforce competition on the local level among domestic firms. Moreover, additional financial support, loans and guarantees help organisations to move from domestic to international level of competition.

Competition is in the nature of organisations, and therefore, a good strategic plan must be in place in order to compete successfully. The next paragraph explains different types and methods of competitions, more specifically.

4.1. Price and non price competition

Alfred Marshall's (1890) theory of industrial economics explained the essentiality of a price factor. It is determined by demand and supply, market force and marginal utility. The author also suggested that industrial economics is susceptible to the mathematics and specific propositions must be tested. The special importance and value the author gave to the fact that the price and output of goods are determined by both demand and supply. Moreover, Marshall stated that the demand of the product decreases with the increase in its price and vice versa, while other factors stays stable.

However, Winter (1993) explained the importance of customer service, where maximisation of collative profits through price, service and time is determined by the product margin. Moreover, Ganesh Iyer (1998) discussed and confirmed the fact, that price competition is very important for the organisations, however it is important to remember non-price factors. Those includes the provision of product information, free repair, faster check-out, or after-sales service.

Joseph Schumpeter (1942) identified the fact that effort, assets and fortunes were continuously destroyed by the innovations. Such process replaces older technologies towards new ones. His studies focused on the changes in output and price, shifts in consumer tastes and strategic decisions which lead to economic growth (Hovenkamp H, 2008). In contrast, Evans and Hylton (2008) observed the idea in more comfortable model. This is based on the dynamic benefits that society realises from allowing firms to secure significant rewards from making risky investments and engaging in innovation. Although, from one side, it allows competition in the market and for the market, from the other side, this results in a single firm emerging as a monopoly. Furthermore, Schumpeter's model is a general model and may be concerned with the mostly unmanageable realities of the economy. John
E. Elliot (1983) suggested that in the absence of economic development, Schumpeter's theory would tend to settle into a routine; therefore, all factors must be considered in the current economy.

There are many theories, techniques and varieties of competition, and so called theory 'perfect competition' proved a good model to judge the effectiveness of competition in the real world and therefore it could be suggested that real competition differs from the theory. According to the W. Jevons (1993), perfect competition means competition in a market where there are a large number of sellers offering products that do not have the ability to influence the prices of their products and which any company can enter. In other words, this is a type of market structure where the market behaviour of sellers and buyers consists in adapting market conditions to the equilibrium. The new theory of competition explains the key macro and micro phenomena better than neoclassical perfect competition theory (Hunt and Morgan, 1995).

According to the Don E. Waldman and Elizabeth J Jensen (2016) there are homogeneous products on the market, and therefore, customers, choosing a seller, are guided only by the value of their goods since the quality is the same for everyone. In the event that an organisation raises the price, his client has every right to find an option that is more profitable for him. Friedrich Hayek (2016) suggested that due to the fact that the market is overcrowded and there is only one type of product on it, neither the sellers nor the consumers can influence the price of the products. After all, if the manufacturer inflates the price, then the buyer will go to his competitor. If it is undervalued, the consumers' demand is not satisfied, and their free competition is violated. The subjects of the free market are the beneficiaries, they take it for granted.

An important role in the new competition plays the region, internal geography and nation itself. Imperfect competition is competition when there are few selling and many buying in the market, or vice versa when competing firms take action to suppress competition in the market. Paul Krugman (1979) explains the theory of the geographical/local concentration on the production, where imperfect competition does exist and, therefore, comparative advantage can be achieved by international trade. The main benefit of the analysis of imperfect competition is that innovation and technology (non-price competition) play a major role in the new economy.

The struggle for economic survival and prosperity is the law of the market. Competition (as well as its opposite - monopoly) can exist only in a certain state of the market (McDonald and Hunt, 2016). Different types of competition (and monopolies) depend on certain indicators of market conditions. The main indicators have been highlighted by Songling et al., (2018) and include:

- *The number of firms (economic, industrial, commercial organisations having the rights of a legal entity) supplying goods to the market;*
- *Freedom of entry of the organisation into the market and exit from it;*
- *Differentiation of goods (giving a certain type of product the same purpose for different individual characteristics - by brand, quality, colour, etc.);*
- *The participation of firms in the control of the market price.*

There are many types of both price and non-price competitions and in order to understand which types mostly suite the company, organisation or even whole industry needs to be separately discussed. In order to develop the logical answer that will fit the organisation/industry the comparative analysis of the different characteristics of price and non-price competition must be taken in consideration.

The table below, the main are the positive and negative sides of the price and non-price methods, which have been identified and analysed by Cowan, Aguirre and Vickers (2010).

Figure 1 - Comparative characteristics of competition methods

Price methods		***Non-price methods***	
Pros	***Cons***	***Pros***	***Cons***
Effectiveness in solving tactical problems (penetration into new market, increasese in market share)	*Draining the company. Profit is constantly decreasing, respectively, you need to continuously increase sales.*	*More lasting and sustainable competitive advantage.*	*High requirements for the qualifications of the personnel of marketing and sales departments.*
Give a quick effect.	*The instability of the results achieved and low customer loyalty.*	*More profit with less sales. Results achieved are more stable.*	*Additional costs resulting from the introduction of non- price methods of competition.*
Ease of selling a product or service (selling cheaper product is easy).	*There will always be cheaper goods, high costs of monitoring competitors' prices*	*High customer loyalty and a large number of repeat sales*	

By looking at and analysing the table above, it is clear that both methods have their own positive and negative outcomes. There is no specific or right answer on how to compete within the industry; however, by analysing the market, consumers, new technologies and economy of the region, the characteristics of both methods apply throughout the company's life cycle.

Moreover, there are 4 possibly proposed strategies of price competition that companies can use in order to successfully compete in the market. (Wendell R Smith, 1956).

Strategy 1	***Strategy 2***
When introducing new products to the market, the company overestimates the price in advance in order to quickly recoup the costs of developing and mastering the output, as well as the resources spent on marketing and product promotion.	*When introducing new products to the market, the price is underestimated to make the entrance easier and also to attract buyers' attention easier and faster.*
Strategy 3	***Strategy 4***
The strategy of price differentiation by market segment. In different parts of the market, the company sells products at different prices, taking into account the environment in which the goods are sold, the geography of its sales. The cost of the same products on different continents and in different countriesmay differ many times.	*The company introduces a new product to the market, but appoints the amount for it as a competitor, giving it the right to test the market for readiness for such a price. At the same time, the quality of the goods may differ in favour of the "overtaking", but the cost remains the same, then the phenomenon of hidden price competition arises.*

Figure 2 - Proposed strategies of price competition

Moreover, in order to use one of the strategies or apply a few of them, the organisation must develop an understanding of different strategies.

Price strategy. According to Bertoletti and Etro (2016), a monopolistic high price is a kind of amount requested for goods and services at which the monopolist firm occupies a dominant position in the market. At the same time, the company sells products and provides services at a significantly inflated cost, resulting in super-profits. This price is set as a result of the monopolists' release of the overwhelming majority of economic benefits. Monopoly high cost leads to a drop in solvency: the higher the price of the product, the less willing to buy it (Bertoletti and Etro, 2016). Undoubtedly, every seller is interested in capturing the maximum value of his goods. Therefore Shaked and Sutton (2013) suggested that the higher the market price between sellers of one product, the lower the amount required for it, and vice versa, and while competition decreases, the cost of goods increases. Moreover, Wang et al (2015) suggested that monopolistic low prices are set by the largest companies in the acquisition of goods and services for medium and small firms, in contracts for the supply of raw materials from developing countries, in purchases at an organisation operating in the public

sector of the economy. Additionally, Macas Nunes (2015) proposed that large companies, through market mechanisms, force small and medium-sized organisations to sell their products, components and services at a lower price; in this case, a large buyer dictates the price to sellers.

Dumping prices. Hermann Levy (1981) explained that these prices are formed in order to capture the entire market or part of it, ruining the less stable competitors. At the same time, Kao and Peng (2016) identified the company practicing dumping also suffers losses, but then, when it occupies a significant part of the market, these losses are compensated, and the company increases profits.

Price discrimination was explained by Hemphill & Karier (1994), who suggested that these prices are based on the buyer. One product can be sold to consumers at different prices, although there will be no difference in quality. Only the approach to sales and customer service is different. There are several types of price discrimination and this was explained by Clerides (2007), Stucke (2016), Ferguson (2016) etc.

Price discrimination of the first degree, with it every consumer gets the price at which he is ready to purchase a product or service: if the buyer agrees and can pay more - the highest cost is set for him; if the client's solvency is low, then he will be asked for the same product less money. Both consumers will buy goods of the same quantity while paying different amounts. Price discrimination of the second degree, in which the volume of purchased goods and services plays a role: if it is high, the firm can reduce the price of one unit of production, with a small amount the price of the goods is higher (Hemphill and Karier, 1994). However, Greenhut (1975) explained the third degree of the price discrimination. This discrimination takes into account the elasticity of demand, market segmentation. At the same time, the monopolist allocates market segments with different elasticities of demand, as if dividing it into sectors. If the demand of the buyer is inelastic, he will be offered the highest price. In the opposite case, the monopolist will set the value less.

There are a number of situations where non-price competition applies and brings positive results. Kramer et al., (2016) stated that cost cannot be reduced due to limits set by the market controller. Moreover, Hatfield et al., (2015) suggested that in the market, demand exceeds supply, which means: the customer will buy products at any price. Furthermore, Ganebhykh et al., (2018) specified that the company relies on improving the quality characteristics of manufactured goods - by improving the technical properties of products (the so-called product competition).

In order to understand and choose the more favourable strategic way to compete, it is important to identify the more specific structure of how mining organisations operates. To meet the objective and be able to link theory and secondary data, further investigation is required; therefore,

researcher decided to use the theory of bilateral monopoly as a best fit and it will be discussed in the next chapter. This will also highlight the potential gap in the literature which lately will be discussed in the chapters of this paper.

5. Bilateral monopoly. What is bilateral monopoly and its variations

5.1. Model of bilateral monopoly in the labour market

Monopsony is a typical market with only one buyer and many sellers and according to Boal & Ransom (1997) as a result, the price will depend on its requirements. Moreover, monopsonists are the only customers in the market. A monopsonist may threaten declining purchases or abandoning them. An example of monopsony is the labor market in a single-industry town, where there is only one large organisation (Ashenfelter, 2010). R. O. Haiser, stated in 1970 that if a strong labour union has been formed in the monopsony labour market (especially an open one), then we will have a situation of a bilateral monopoly in this market. Kalinowski (2015) suggested that the union is a monopolistic "seller" of labour in the sense that it controls the supply of labour and affects the level of the wage rate. The monopsony employer of labour (or the oligopolistic association of employees of labour) opposes this trade union, having the opportunity to influence the wage rate through a change in employment. Moreover, Regalia & Regini (2018) defined that the monopsony employer will seek to set the wage rate, the competitive equilibrium rate and the union will insist on some wage rate that is higher than the competitive equilibrium rate. As a result, the wage rate will be established at some level in between. Economic theory does not answer the question: what is the specific meaning of this certain level (Greenwood and Weiss, 2018). Gourevitch et al., (2016) said is that a party (monopsonist or trade union) who has more power in the process of concluding an agreement or who pursues a more effective economic strategy can incline the opponent to setting a wage rate close to "his" rate. Due to the nature of the mining industry, geographically it is a complex structure. In this industry, depending on the extraction material, there is usually only one monopoly firm and a single union, where all workers belong to one union and could possible called 'identical'. Therefore

the decisions are subject to negotiations between firm andunion, not people (labour market) (Berg, 2015).

5.2.Bilateral monopoly in the resource market

The situation in the market, which will be discussed in this section, is called a bilateral monopoly and is a combination of monopoly and monopsony in the same market. Tracy Lewis and Robin Lindsey (1986) analysed and made a conclusion that bilateral monopoly is not at all something exceptional for the economy and can arise both in the markets of consumer goods and in the markets of resources. For example, the government is the only buyer of certain goods, which may also be the only manufacturer (Morgan, 1949). For example, "market" of goods made from mines, which are acquired only by the government and therefore, naturally, assume a bilateral monopoly. To justify the above, Machlup and Taber (1960) explained that, bilateral monopoly can easily arise in conditions of irregular transactions - for example, in some small town, a buyer who has come to the marketplace who needs, for example, a cow milk can find among the many sellers of various goods a single seller. If this is the only buyer, presenting the demand for cow milk, then it creates a bilateral monopoly. Therefore, Morita et al., (2018) stated that bilateral monopoly can occur quite often, if only one company produces some intermediate benefits, which are also necessary only for one company. For example, in the mining industry, when the company extracts coal and at the same time the company who is distributing or process the coal uses the product itself to operate the manufacture., therefore bilateral relationships are in place for both parties.

It is very challenging to establish the equilibrium in the bilateral monopoly due to different reasons. On of them is the balance uncertainty. According to Pigou (1940), in a market with many sellers and buyers, equilibrium is established as a result of the independent actions of sellers and buyers. Any agent focuses on the market price and decides only on the volume of purchases or sales. In this case, as a result of the general actions of agents, the price is set in such a way that the volume of demand is equal to the volume of supply. When only one of the parties is represented on the market by a single buyer or seller, there is also a single market equilibrium. Hague (1971) explained that a monopolist could set the price of a product and (immediately or after several attempts) set it at such a level that buyers impose a demand for the amount of product that is most beneficial to it. A monopsonist has a similar opportunity and also sets such a price that manufacturers offer him exactly the amount of product he needs to get maximum profit. However, according to Benassy (2016) when a monopolist meets a monopsonist in the market, everything happens differently. Both parties have

the ability to set the price of the product, knowing that no one will appear on this market as a seller or buyer and will not offer the other. Moreover, by assigning a price, each of them focuses on a certain amount, at which this price will bring the greatest possible benefit (Machlup and Taber, 1960). In other words, each of them simultaneously seeks to choose both a certain price and a certain amount. Naturally, there is no guarantee that their preferences will coincide. Most likely, the opposite situation will be observed. McGuire and Staelin (1983) considered the conditions for the production of a certain intermediate good by a monopolist and the conditions for using it as a monopsonist. The monopolist has some curves of marginal and average costs for the production of this good and the monopsonist has some curves of marginal and a average revenue from using this good as a resource. Gilbert (2017) assumed that the supply of a certain resource is monopolised, and the demand is competitive. The optimum for it is the volume of output, at which the marginal cost of producing the next unit is equal to the increment of the total revenue as a result of its sale.

5.3.Bilateral competition and monopoly

The behaviour of the buyer of the resource depends on the structure of the market in which it sells its product. Robin Naylon (2002) considered two cases: a resource buyer sells its product in a competitive market; the buyer is a monopolist in the market for its product. Suppose that all firms purchasing a product produce the same product and sell it in the same market. For example, we can consider the market, which is grown by many independent farmers, and is turned into yarn by many independent firms. The demand curve has a well-defined position, is characterised by a negative slope and depends on the prices of other resources and on the price of finished products.

Dobson and Waterson (2007) agreed that each competitive industry has its own industry demand curve, constructed with account of the change in the price of its products. In order to obtain a curve of market demand for a resource, these curves can not be summed horizontally with complete confidence: the demand for the products of some industries may depend on the prices of products of others. If we add horizontally the sectoral demand curves of these industries, the resulting curve can be considered the market demand curve. Here it is necessary to build a completely different curve, which will take into account all the mutual influence of equilibrium in the markets for finished products.

Thus, the emergence of a monopoly in the resource market is just as unprofitable for consumers as its appearance in the consumer good market. Products of companies using resource may not be a consumer good, but in turn a resource for other companies, but this does not change the essence - the supply curve of consumer goods produced at the end of this process chain will have the same effect - it will move up (Mahoney and Pandian, 1992). For example, if aluminium industry is

monopolised, it will lead to a higher price for the raw product, then a higher price for the details and, finally, a higher price for the finished airplane. And at all stages of production, there may be competition, but the price of the finished product will still be affected by the higher price of aluminium. From the above and as it was explained by Gerlagh and Liski (2017), if a monopoly appears at these stages for some reason, then the price of ready-made planes in the long period will be even higher. If a resource whose production is monopolised is used by firms in several industries, then the higher price of this resource will affect the prices of the products of all these firms.

5.4.Bilateral monopoly in mining industry and pricing decision methods

The solution to the problem of choosing a pricing policy depends on the type of market in which the company operates and it was explained by Zeuthen (1930). In its pure form there is no competitive or exclusive market. There is no strictly sustained in the spirit of monopolistic or oligopolistic competition of markets. There are many examples of mixed markets in the real economy (Hall, 2015). Therefore, although the definition of its type of market is an important conceptual approach to the problem of pricing, but it still does not provide an arsenal of practical techniques for the pricing policy of an organisation. Begin and Sumner (1992) explained that the decisions made by the management of the company in the field of pricing are among the most complex and responsible because they depend on indicators of financial and economic activity. Simon and Fassnacht (2018) explained that price decisions could have long-term consequences for consumers, dealers, and competitors, many of which are difficult to foresee and, accordingly, to quickly prevent undesirable trends after their manifestation. This is especially relevant in the current world conditions, when, due to the still fluctuating purchasing power of the population and organisations and increasing competition in the market, the choice of an effective pricing method becomes most important for the success of an organisation (Nagle and Muller, 2018).

Bilateral monopoly exists in mining industry in a various form. For making decisions on the price, information is needed. And there is a big difference between data and information. Charles Ingene (2007) stated that decisions can be made based on information, not data. Data is the source material from which information is compiled by analysis. It seems that for optimal pricing, organisation must determine in which areas and for which issues to collect information, and then it is necessary to collect information on each issue. Tashakkor et al., (2018) provided with a list of the most common key variables for optimal pricing includes:

- Supply factors
- Variable inputs
- Production cost
- Consumer demand
- Forecasting
- Consumer suggestion
- Market structure
- Company strategy
- Profit rate

Depending on the industry and market specifics, this list of key variables for making price decisions can be expanded, or, conversely, shortened. For organisation producing industrial-technical products (raw materials, materials, semi-finished products, etc.), the most important variable is information on the market for finished products (market structure, dynamics of prices for finished products), since other things being equal, the price of intermediate products is function of the price of finished products (Chalos and Haka, 1990). Moreover, Haque and Topal (2016) stated, if we bear in mind such an industry as non-ferrous metallurgy, then not only the domestic, but also the world market is to be studied. It can be assumed that in the coming years, the volume of finished products will at least remain at the same level, then the volume of deliveries of intermediate (for example, for aluminium production) products, while maintaining the technology, has a similar trend. In this case, the supplier's pricing policy becomes particularly important, since the price becomes practically the main point in the supply contracts. Rahmanpour and Osanloo (2016) identified, that since the level of prices for raw materials and finished products of the organisation of the aluminium industry in any country is largely influenced by the world price of row material, attempts by a number of plants to develop new methods for calculating electricity and rail tariffs seem to be justified, the essence of which is a flexible linkage to the level of world prices for the row materials. The similar approach is applied by factories and in relation to other suppliers (Machlup and Taber, 1960).

Based on the analysis from all the above, it could be suggested that a typical procedure for making a price decision in a bilateral monopoly, when the relationship between the producer and the consumer is stable, can vary depending on different situations. According to Shmeleva and Eliseeva (2016), the parties analyse the implementation of contractual obligations under contracts of previous periods, changes in the structure and level of costs, dynamics of profitability and other financial and economic indicators, market conditions, tax legislation, macroeconomic situation (inflation, refinancing rate). On the basis of the analysis performed, price proposals could be prepared for the conclusion of supply contracts for the new period, either long term or short term. Moreover, Luttrell

and Noble (2017) explained, in the case of a planned change in price conditions, the parties develop measures to achieve the intended goals. The list of events may include participation in industry meetings and seminars, scientific and practical conferences and exhibitions, as well as publications in the media (newspapers and magazines, industry scientific publications), etc. With the help of such events, the parties seek to prepare each other for possible price adjustments compared to contracts from previous periods.

The analysis of the strategic actions according to Karenov et al., (2016) of the parties with the help of game models is carried out, which allows to get an idea of the set (variants) of possible actions, as well as the interests of the parties (the winning function). Furthermore, as Webster (2009) explained in his book, the analysis carried out on the basis of theory and situational campaign helps in making decisions during the contractual company, when price and other terms of the supply contractare made public by the parties. As it is known, in game theory it is assumed that the payoff function and the set of strategies available to each of the players are well known, i.e. Each player knows its own winning function and a set of strategies at its disposal, as well as the winning function and strategies of all other players, and organises behaviour in accordance with this information (Rapport and Fuller, 1995). In actual practice, Alfano et al., (2018) explained the eithical side of the theory. Information of the parties is quite possible, especially in the case when there are stable and stable relations between the parties, and product deliveries are carried out regularly for a long time. The prescribed procedure, as is easy to see from its essence, can also concern a decision-making procedure by a monopolist in a bilateral monopoly regarding other elements of economic activity in the market - product policy, marketing, etc.

The next chapter will explain the reader the forms of the unionisation each country is using on a local levels.

6. Unions and industrial power

According to Bloch (1987), prices in mining tent to rise and fall on cyclically alongside with world trends, however, manufacturing prices depend on other variables. Such variables include unionisation, which can be considered as a method of the possible sustainable effect (Brown and Medoff, 1978).

Starting form the beginning, an industrial society is a society that can characterised by a developed and complex system of division of labour with a high degree of its specialisation, mass production of goods, automation of production and management, and widespread introduction of innovations into production and human society. Thus, the determining factor in the development of an industrial society is industry (Bell, 1973). The theories of industrial society were further developed by Toffler (1981) and explained by Hage & Powers (1992). The main specific characteristics of post-industrial society are reduced to the predominance of the production of services, the emergence of a new intellectual class of professionals and technical specialists, which is assigned a decisive role in the functioning and development of society, and the rapid development of information technologies.

It is important to look at the term of 'unionisation', as this can be viewed from the bargaining perspective of the labour market. Wallerstein (1989) explained the cross-national differences of the unionisation, where the size of the force plays a major role. Based on the finding the bigger unions have more resources to achieve collective bargaining power via sustainable workers and therefore moderate their wage demand. Furthermore, Mishel (1986); Fellner (1947) and Pencavel (1986) widely explained the structural determinants of union power across manufacture industries. In order to gain bargaining power, in this case, different union structures can affect mining firms' innovations and technologies (Haucap & Way, 2004). Unionisation leads to the three possible modes:

- organisation-level wages rate (independent determination);
- industrial union wage rate (one union sets independent wages for all organisation);
- united wage rate (all organisations have the same rate within the industry).

This is important to remember, especially under the conditions of bilateral monopoly, as this gives a great level of power to affect the price level in the industry.

6.1.Unionisation and innovations

In a dynamically developing, constantly changing market world, a trade union organisation, like any other, must have an intention to increase its competitiveness, and this is impossible without innovations. Various authors including Machin & Wadhwani (1991); Ahn (2002); Jones et al., (2007) and Toner (2001) highlighted the importance of the positive effects of unions on investment and innovations within the mining industry. Unionisation leads to the long run perspectives including productivity growth and ability to gain competitiveness. Moreover, when unions has an option to defend their rights individually, then they will be able to defend their rights collectively, which means they will be able to act in solidarity. In this case, Simons (1944) confirmed the vulnerability of the

capital, as an organisation in the industry will stay if variable costs (wages) are covered. In contrast, Manning (1987) suggested the importance of capital stock, which could lead to higher wages. Therefore, investment decisions increase in price.

Many authors agree on certain relations between the labour market/unions and innovations. Based on the research of Menezes-Filho & Reenen (2003), unions can affect innovations, which can be seen through profitability and acceptance of the new innovations. Moreover, as it was noted by Ulph & Ulph (1998), research and development is a strategic tool of the organisation, and therefore, organisations and unions together can use this strength to bargain the power in the market. Bryson & Dale-Olsen (2020) local unions are more conducive towards the product/technological part of the product innovations rather than competitive wages. Therefore, local bargaining's main focus is the innovation side of the theory. However, Menezes-Filho & Reener (2003) highlighter the importance of considering cross-national differences, especially the ability to bargain and union attitude. Moreover, Frege & Kelly (2003) confirmed the cross-national differences and similarities of unionisation and acceptance of innovative strategies. This includes local policies, social-economical level and local governance. However, it might be influenced by the internal structures.

It is important to consider the influence of external variables, such as FDI, external resources, knowledge, and exports. Srholec (2009) and Mukherjee (2008) suggested that different countries with different levels of economic development are more likely to challenge knowledge through innovations and cooperate with local partners in the same geographical region, which could be due to the wage rate differences.

7. Mono towns/cities and clusters - economical potentials and challenges

In order to develop stable economic growth in the region, which affects the whole country, the economic development of those regions needs to be placed at the top of the priority list (Levitskay et al., 2017). In order to achieve stable social-economic development in the mono towns, specific policies need to be in place (Vetrova et al., 2014). The word "single-industry town" is a shortening of the "single-industry city" concept. Shastitko and Fatikhova (2015) noted that the problems of single-industry towns are being actively discussed in an unfavourable economic environment. Maksimova (2015) and Satubaldina (2015), state the following criteria for classifying settlements as single-industry towns:

1. Works one or several organisations of the same type having the same industry affiliation, while all other business entities of such a city produce products only for the needs of its population.
2. There is a chain of organisations that have technological connections between themselves and work for one specific end market, except for those who produce products for the city's needs.

3. The income of the local budget largely depends on the work of one or more organisations.
4. The population has a uniform professional composition.

The above organisations or production complexes not only provide the population of the city with jobs but also commit themselves to supporting and developing the construction, energy, transport and social infrastructure, which increases costs and affects the competitiveness of products (Storey and Hall, 2017). In addition, often, a single-industry town is a settlement located at a considerable distance from other cities or not have developed ties with the outside world in the form of roads, telephone networks, etc., and new government support would be beneficial.
However, Talalaev et al., 2020; Parfirieva, 2017; Maslennikova et al., 2018 and Fokin (2015) highlighted the main problems of single-industry towns. Authors suggested several issues and problems, including lack of industry diversification, the dependence of the city budget on the result of the formation of a city-forming organisation as the main taxpayer, social and economic vulnerability of the population due to narrow specialisation; the threat of long-term unemployment due to an imbalance between supply and demand for labour; outflow of the economically active population due to low wages; potential increase in social tension; and existing administrative difficulties in obtaining governments support. Due to the various issues, strategic decisions must be in place to solve the problems of single-industry towns (Piyankova, 2017). Therefore, there are three basic areas that could be suggested in order to maintain stability in single-industry towns. Abikayeva et al., (2016); Panasyuk & Pudovik (2016) and Vasilyeva (2014) suggested the increase the following: the diversification of the economy; supporting the existing socio-economic base of the single-industry town and relocating the resident population from the single-industry town. The above steps are considered tone successful and, therefore, will be able to cope with the issues within single-industry towns.

7.1. Mono towns

In terms of Russia, post soviet era gained a great potential for development, therefore creating a potential growth of the regional economy (Crowley, 2015). Commonly, territories with a rich base of row materials attract the attention of organisations and consider those locations as places

of consumption and profits (Kryukova et al., 2015). The majority of the mining falls in the Western and Eastern Siberian regions of Russia, which is rich in natural resources. Therefore, this region and the majority of the cities can be considered as single-industry cities (Levitskay et al., 2017). Kholina and Mironova (2012) developed an idea of the level of economic growth and its dependence on the current situation and the time the country makes its sustainable decisions. Furthermore, Panasyak and Podovik (2016) explained the importance of government support policies for single-industry towns due to their significance for the macro-system.

It is challenging to achieve sustainability within the mining industry in the case of mono-cities due to various factors. Levitskay (2017) suggested that in recent years, the economic independence of mono towns has increased, and they are responsible for their own development. In Russian Federation, according to the Russian Government and Fund for Mono town Development in Russia, mono town or city can be considered any town/city which has the following: have the status of a city district or urban settlement, with the exception of municipalities in which, in accordance with the law of a subject of the Russian Federation, there is a legislative authority of a subject of the Russian Federation; the resident population exceeds 3 thousand people; the number of employees of one of the organisations (one of the branches of a legal entity in a municipality or several organisations engaged in the same type of core economic activity or whose activities are carried out as part of a single production and technological process) reached 20% of the average number of employees all organisations operating in the territory of the municipality in the period of 5 years preceding the date of approval; listed in the single-industry municipalities of the Russian Federation (single-industry towns) and the implementation of one of these organisations (one of the branches of a legal entity in a municipality or several organisations) are involved in the extraction of minerals (except oil and gas) and/or the production and/or processing of industrial products.

Based on the data from Russian VEB (VneshEconomBank, 2018), there are 321 mono-towns in the Russian Federation, which count to 13 million people population, of which 75 million people represent the workforce (VEB, 2018). Mono towns are located in most of the federal districts within the country. Most of them are concentrated in the Volga, Siberian and Central Federal Districts, where almost 64% of the population of single-industry towns live (VTB, 2018).

In contrast, mono cities theory can be viewed from a different perspective, where improving quality of life in minorities is the idea to be considered. Kirsanova and Lenkovets (2014) view this problem from the social and economic status. They suggested that the key to the problem is to maintain a stable level of the national economy. They especially discussed the quality of living and education. Lizunkov et al. (2019) developed the idea of social and economic development in mono towns. While single-industry towns struggle to develop economic growth due to various factors (political and financial), training and development of the workforce are in place. Tyulicheva (2017)

and Malushko et al., (2016) discussed the approach of education development within mono towns, including guaranteed placements, social benefits and personal development. Therefore, wise investment into assets (humans) creates a positive trend in social and economic growth.

7.2. Clusters

Mono-tows can also be viewed from the cluster perspective. Ivanova et al. (2017) explained the idea of minority clusters as a strategy for regional authorities in order to use favourable conditions to expand private organisations, therefore creating sustainable growth and development. The initial idea of clusters has been described by Porter (2000); the main point of attention within the clusters is the interaction between variable socially economical principals. This includes universities, research organisations, supporting industries and mainly mining organisations. At the same time, according to Brough (2002), clusters can be viewed as a new opportunity to create new jobs, develop education standards in specific areas and create favourable conditions for exports of goods. Moreover, Marshall (1890) explained clusters as an industrial district where concentration specialises in skilled workers contributing to trade and production specification.

Mono towns use the tools as clusters to structure industry and organisational networks. Antonov and Bereznev (2017) highlight the importance of this, as it creates a positive atmosphere of social-cultural factors, as well as technical-productions factors. Moreover, this creates comparative advantage, cluster's infrastructure and adds value. Popkova et al. (2018) explained the importance of clusters and innovational networks and interpreted them as a pathway for sustainable development of the economy via clusters development.

According to Kutsenko (2017), there are over 200 clusters existed in the Russian Federation for the last two decades in various industries, including various clusters are related to the mining industry. Daneykin et al. (2019) explain the main problems and restrictions of cluster development in monotowns. Despite the fact that clusters resulting an increase in development, achievement of goals and therefore, creation of a strong future, the main problem with clusters is understanding and management of a long-term development idea. Dubnitsky & Lunina (2015); Titova et al., (2017) and Mindlin et al., (2016) confirmed the possibility of clusters formations as a positive outcome for the development of the mono towns. Furthermore, Islankina and Thurner (2017) explained the establishment of clusters as an open channel for knowledge transfer, technological development and a global value chain. At the same time Prusova et al., (2018) reviewed the cluster options from the environmental problem. Authors suggested that being an extracting organisation requires specific approach and cluster structure support the efficiency of the labour resources.

As an example of India, clusters can be divided into sectoral concentrations due to the richness of the land and the variety of resources (Dasanayaka & Sardana, 2015). Khanna (2013); Chakraborty (2014); Dorian (1989) and Lahiri-Dutt (2003) analysed that clusters combine a large number of handicraft, small and micro organisations producing technologically related products. Indian clusters supply more than half of the country's export products. Moreover, Das (2005) suggested that efficient government policies for the formation of clusters from crafts and small and micro organisations to large monopolistic organisations provided an increase in the technical level while increasing employment in a country with enormous manpower but a high unemployment rate. Ghose and Roy (2007) explained the fact that, new relations within the cluster contribute to the development of advanced technologies and the improvement of all stages of joint economic activity, which has a corresponding effect on suppliers and consumers. The greatest successes in economic activity are shown by clusters focused on achieving competitive advantages through the development of innovative activities (Venkataramanaiah and Parashar, 2007).

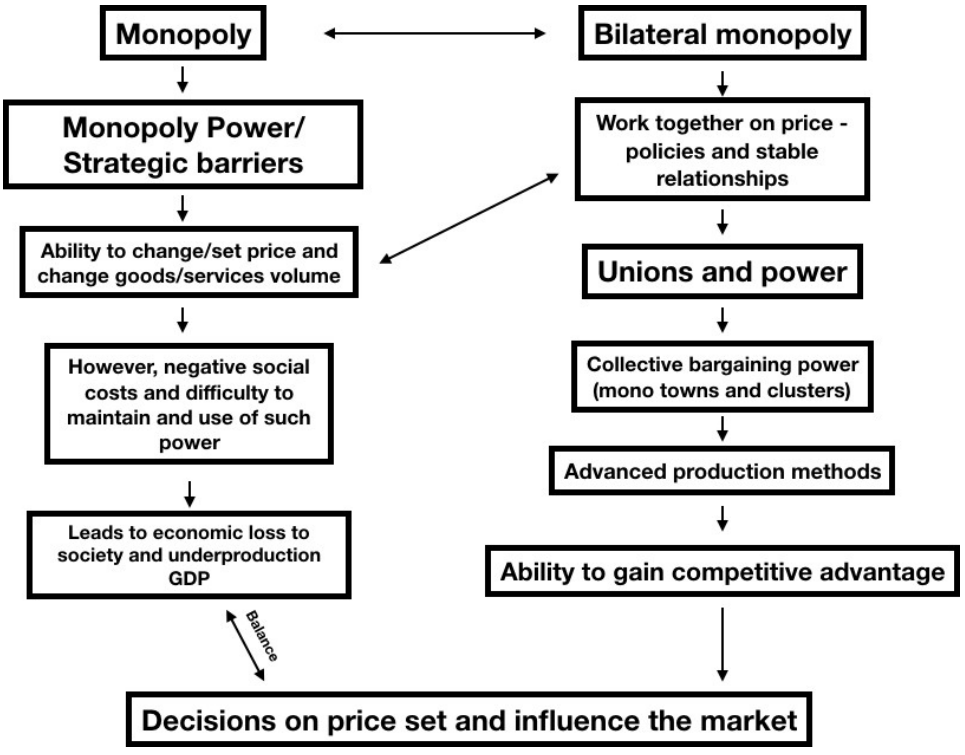
Moreover, Porter (1991) suggested that the country's competitiveness should be viewed through the prism of international competitiveness, not as it is an individual firms, but of enlarged "clusters" - associations of firms of various industries. It is important to note that the cluster framework allows under one roof to unite not only suppliers and processors in a vertical chain but also direct competitors. This led to the emergence of the phenomenon of "co-competition" (coopetition), characteristic of a partnership of independent players competing in the same markets but capable of joining forces to solve common problems (Rocco and Dagnino, 2009). As it was explained by Neuwirth et al. (2017), the main goal of participation in a cluster company usually determines access to a set of unique services provided to cluster members by a specialised cluster organisation - a kind of "management company" of the cluster. Typical cluster services include training and development, access to equipment, establishing good contacts with authorities and establishing partnerships with international partners (Cygler et al, 2018).

The next chapter will conclude all the necessary theory researcher have been able to investigate and analyse in order to give a base for secondary data analysis.

8. Literature review conclusion

All the above literature used gives the theoretical base for the main question of the research. However, it does not provide the answer to the question: what and how decision-making mechanism

influences price decisions. Literature only answers some of the important questions of the research, and it only covers some hypotheses. As previously discussed, the mining industry operates under the monopoly market; more specifically, it mostly operates under the conditions of the bilateral monopoly. The reason behind this is the structure of the market and the ability to use resources in cooperation with other parties in order to gain a competitive advantage. This includes not only labour and resource market but also strategic decisions. The government and its ability to influence the market or its ability to help the mining industry creates unique relations, which can be beneficial. Despite the fact that bilateral relations give more opportunities for organisations in the industry, advanced production is one of the keys to success. As said before, it can be suggested that mining organisations with more advanced production spend less on the production cost and automatically gain a competitive advantage. Therefore, in order to gain more advanced production, cooperation must be in place between organisations, governments and the labour market. The theory does not explain clearly how specifically and to what extent it needs to be used, as the industry's specification allows adjustments and changes over time. Moreover, the literature does not answer how mining organisations can use their competitive advantage to influence and set the price for their product or how they use it to set salary rates, as their production cost is minimised.



Graph 4 - Literature review main points

The graph above illustrates the connection between mono towns and clusters, unionisation and innovations, and competition theory and technology. All factors work together as a set, and it helps to identify a tentative statement (main hypothesis) of the research as a testable prediction that the researcher has formulated as:

«How mechanism of strategical pricing decisions in the mining industry can be developed under the bilateral monopoly conditions».

The process of question formation has been followed by the conduction of the background research of the industry in Russia and has been performed by the researcher. A clear understanding of the academic literature, theories and industry specifics leads to the formation of the hypothesis. As known, the research hypothesis must be clear and specific. Furthermore, there is a must for either a possibility to prove that the proposed hypothesis is true; or a possibility to prove that the proposed hypothesis is false; and most importantly the result of the hypothesis must be reproducible, otherwise, this could lead to a vague result. Therefore, for this particular research, one main hypothesis have been built plus a sub-main hypothesis have been identified in order to follow the logic of the theory.

8.1.Hypothesis

However, it is only possible to prove whether the above statement is true or false with research of the sub-main hypothesis. Despite the fact that the main hypothesis gives an opportunity to answer the main research problem, it does not give a full picture of how this topic can be reproductive. Therefore, the researcher suggested seven main hypotheses for more detailed analysis, which are considered to create a link between the business side of the industry and the literature and will give an opportunity to test it. Mainly, the sub-main hypothesis will help to test the ability of mining organisations to make strategic price decisions only under bilateral monopoly conditions.

· Competitive advantage is gained under the bilateral monopoly relationships
· Monopoly power commands market price on product and salary
· Mono town structure establishing successful bilateral relationships
· Social economical development of mono towns boost local economy

· Unionisation power enhances innovations and command wage rate

· The mining market price is influenced and set by coalition between mono towns and government

· Advanced production method impossible without investments into technologies and education

Each hypothesis has been identified throughout the literature and theories and can be used for future thesis research. As it was analysed in the above chapters price and non-price competition can be gained when organisations works together towards common goal and, therefore, forms a bilateral monopoly. One of the ways to establish bilateral relations is to use a tool of mono towns. This is believed to be an effective way to get control power and, therefore, improve financial performance. Moreover, when organisations have monopoly power, they able to set the prices they feel comfortable to compete with and influence such prices. Furthermore, technological investments lead to advanced production, which is believed to be one of the tools to gain a competitive advantage.

The next chapter of this thesis explains the methodological side of the research and includes the purpose of the research, data collection methods and validity and reliability of the research, literature usage and explains the importance of using specific methods to justify and answer the research question.

9. Methodology

Purpose of the research

The research idea usually comes from the researcher's theoretical orientation and personal background. Therefore, it is essential to find the balance between personal view of the problem and how this influences the researcher in order to avoid personal bias (Cunningham and Hoboken, 2012). Moreover, according to the Cunningham and Hoboken (2012) theoretical orientation influences the design of the research which leads to the bias and neglect alternative perspectives. Therefore the

researched must examine alternative explanations and solutions of the data in order to view alternative explanations to the research problem.

This chapter of the research will provide the reader with an understanding of the methodological approach and in what way such approaches can be adapted and applied to the research. It is important to mention that this chapter must demonstrate the clear justification of specific use of literature or theories within the researching topic, as this must assist author to answer the research question.

9.1. Demystification of the research field

In order to create a research, according to the theorists such as Greenfield & Greener (2016); Weber, (2017); McKenzie, (2014) three main concepts must be remembered. This includes the type of research (descriptive, exploratory, or casual), type of data used in order to create a suitable method (quantitative, qualitative or mixed) and reasoning behind the research (deductive or inductive).

According to de Vaus (2001), the researcher must investigate the specifics of the data that will be required for the research and the methods that will be used to collect data. It is important not only to choose suitable data collection methods but also to remember how such methods will help answer the research question, regardless of whether the methods can be viewed as strengths or weaknesses. The research tends to build its arguments based on the gap in the existing literature (Greenfield and Greener, 2016). A good overview of the field helps to build the theory around the researched topic, where, in some cases, data collection follows the theory or, in other cases, precedes it. Therefore, the initial review of the mining industry has been conducted, including specific structures: mono towns. Furthermore, the combination of the mining industry and theory, including competition, monopoly and bilateral monopoly, creates the specific propositions for this research. This leads the researcher to choose the appropriate strategy for the research and determine what exact strategy will assist in solving the research problem based on the gap in the literature. Moreover, it is important to remember the methods of data collection and analysis, as it is one of the tools a researcher can use to solve the research problem. Going back to theory, the induction process, where the theory has been built by using individual cases, must be considered throughout the research project. However, it may appear that research may be viewed from the deduction perspective, where specific instances from general principles will be used. The decision can be made based on the theory by finding the gap in the literature, which is the link between bilateral monopoly and mono towns. At this stage researcher uses the deduction method, due to the fact that data collection can precede theory building and it is following it. However, throughout the research the method can be changed, as primary data will be collected and it will follow the building process and theory can be tested. All the above essential parts

of the research are co-dependant on each other, and it is essential to follow the logical structure of the methodology.

Therefore, the inductive method, in combination with the deductive method, works in collaboration and creates the hypothesis. The author can use and create sufficient research by using such a method. This logical process creates a more specific and practical approach, therefore, developing a proper way of solving the research problem. According to Onwueghuzie and Leech (2005), exploratory and confirmatory approaches depend on the nature of knowledge. Trochim (2006) suggested that the deductive approach begins with general and ends with specifics, and the inductive method moves from specific to more general. Therefore, arguments that are based on laws, rules or widely acceptable are expressed more deductively and at the same time, arguments based on experience are made inductively. Moreover, Clark and Creswell (2007) suggested that the inductive method helps to generate the theory, and at the same time, the deductive method helps to move from theory to hypothesis. Therefore, in order to answer the research question, the collaboration of both methods is
essential for this research, as it will help to build up the theory and answer the main research question.

To fulfil the formulated theory/theories, the researcher needs to test it. Depending on the nature of the research, it can be that theory generally applies to the research question, and statistical methods have been used to justify it. In contrast, if the accuracy of the theory is viewed in the context of the particular situation, then the conclusive theory must be viewed from a different perspective (Rogers, 1955). At the last stage of the research, the reflection of the work done must be carefully considered. This will show how the research findings relate to the current field thinking of the research project, where the research fits into the field of knowledge, and this will show the contribution that has been made and may help to reassess the result. These steps help to identify whenever the researcher found the gap and found the solution to the research problem.

9.2. Research philosophy and approach

The research philosophy is pragmatism, and the researcher seeks to look at the problem and aims to find possible theoretical solutions. Based on this philosophy, the researcher concentrates on the specific outcome and seeks to answer the problem question; the decision on the well-designed strategy plays a crucial role. Such an observation model helps the researcher understand the reasoning and guides throughout the research design. According to Myers & Avison (2009) is it important to identify

the appropriate philosophical orientations: positivism (where method determinate outcomes) or interpretivist (approach of complexity rather than close focus on meanings). This helps to avoid personal bias within the environment. However, there are always some issues or problems with the specific method that the researcher must consider. As per the theory of Bryman & Bell (2011), positivism relies on the application of traditional methods, whether deductive reasoning is in favour compared to the opposite side, and whether individual perspective overcomes objective factors. Therefore, the researcher is focusing on using both approaches in order to objectively evaluate findings and find the solution to the research question.

Due to the fact that one method of research cannot give an 'entire picture and there may be multiple realities', the view from different angles and various methods must be used to conduct the research (Saunders et al., 2009, p.144). The distinguishing feature of pragmatism is flexibility, due to the fact that the result can be changed over time, and it should be viewed as the provisional truth (Sekran and Bougie, 2016, p. 29). A scientific approach to this research gives an opportunity to collect the data from the appropriate sample with a minimum degree of bias. Moreover the research sample must be carefully and logically identified and selected (Serakan and Bougie, 2016). Therefore, data must be collected within the mining industry in particular country. Furthermore, research must avoid subjective values from the data collected in order to justify the research purpose.

9.3. Hypothesis

As it was previously discussed above, a tentative statement (main hypothesis) of the research, as a testable prediction, has been formulated by the researcher as:

«How mechanism of strategical pricing decisions in the mining industry can be developed under the bilateral monopoly conditions».

Sub hypothesis includes:

- *Competitive advantage is gained under the bilateral monopoly relationships*
- *Monopoly power commands market price on product and salary*
- *Mono town structure establishing successful bilateral relationships*
- *Social economical development of mono towns boost local economy*
- *Unionisation power enhances innovations and command wage rate*
- *Mining market price is influenced and set by coalition between mono towns and government*

In order to justify the research, it is important to make the hypothesis testable. An important part of the research includes the design of the testable hypothesis and moves to the next stage of data collection, which can be analysed later. Therefore, a descriptive research method is used to conduct the research, as this helps to describe different aspects of the phenomenon, and later, it can be used to connect related variables.

9.4. Data collection

Quantitative data primary focuses on numerical data and this creates the observation on the theory for the research and this type of the observation is tremendously useful. It is also testing predetermined hypothesis which are based on the deductive process (Patton, 2002). However, for this research, it is also important to explain or qualify a phenomenon, and qualitative research often develops the theory from the inductive process.

Moreover, pre-existing data can be used to achieve the result of the suggested hypothesis. In order to ensure that the phenomenon of interest is observed, stratified sampling techniques must be utilised. For this particular research, the possible solution is gathering observations and data from the field. Moreover, in order to satisfy the research questions, interviews with the management of the study field must take place (Rapley, 2001). According to Malhorta & Grover (1998) it is important to consider the type of the survey researcher is using. This includes: exploratory (in-depth investigation of the specific topic) or confirmatory (theory already confirmed it). For this specific research, it is more appropriate to use a confirmatory approach, as based on secondary research, strategic decisions on price within the industry tend to be made under partnership conditions.

This research focuses on a mixed method, as the qualitative method will bring new perspectives to the existing research, especially in areas where quantitative methods have been dominated. A combination of both methods for this research will help to create more strong support for the research design choice and final inference (Shaw, 2003). The main benefit of using the mixed method is that it will minimise the systematic errors or bias during the analysis (Corbin and Strauss, 2008). Both quantitative method (rating specific responses of the interviewee) and qualitative (recording and transcribing the entirety of the interview experience) in theory, supposed to satisfy the research.

According to Groves et al. (2011), survey is a systematic method of information collection from a sample of specifics for descriptive purposes, and they could vary between the whole population or the sample. Surveys can be used as a tool for tracking economic trends, investment trends and even local trends. Due to the nature of the research, it is important to collect quantitative data from secondary sources, such as the unemployment rate, employment rate, level of investments in specific industries and even the level of satisfaction. Therefore in chapters of the research paper statistical data of the mining industry have been collected. As a source of information for quantitative data, the researcher is using official statistical reports of each government, mining department of each country and international statistical data. This helps to gain information of the past and gives an opportunity to test it agains theory. Russian mining industry has been statistically analysed, which helped the researcher to confirm the valid existence of the sub-main hypothesis. However, it is impossible to get all the answers only from official reports, as sometimes information available online is not full or does not gives the inside information on particular question. Therefore, questionnaires must be conducted in order to answer the questions 'why', 'how' and 'to what extent'. The mix of open-ended and close-ended questions will provide the researcher with more specific information, including quantitative and qualitative data. The reasoning behind it, is that participants can choose answers from already confirmed theory and either justify it or contradict the hypothesis. Therefore, the design of the questionnaire must answer the questions of future or long-term strategic decisions on price, which can later help to test the hypothesis. As per theory, a questionnaire is a low-cost option with a highly positive reply effect. This could be sent online, or such a method could be conducted via the phone, which saves time and, therefore, gives the researcher the opportunity to critically analyse data and interpret it correctly. The way to approach organisations is simple: an official email needs to be sent to the companies email. This method speeds up the process, as follow-up emails or calls will help the researcher to collect all data within the set time frame.

There are many varieties of survey activities; however, for this particular research, specific characteristics have been chosen. This includes a primary collection of information by having interviews and recording answers. The reasoning behind this is that qualitative answers cannot be found in the official online reports, and no official governing body can confirm or disagree with the existence of bilateral relations within the mono-town structure and its positive effect on long-term strategic decisions. Sampling parameters according to Hammersley and Atkinson, (2007) is closely related to settings, time and people. Each decision leads the researcher to particular sites and people. The selection of particular companies within the industry, more importantly, the selection of specific people, helps to establish the boundaries of the research (Daymon and Holloway, 2010). Therefore it is important to make the right decision prior to the interviews and also allow the time to collect data and analyse it.

9.4.1 Interviews

In order to satisfy research questions, interviews with the management of the study field must take place (Rapley, 2001). To achieve testable results, 2-4 mid-range (but still leaders of particular mines) companies from research country must be selected and approached by the researcher. This will give options for the researcher in case one of the organisations decides not to give information. In order to narrow down the research area, one specific region has been selected. After careful consideration and analysis of secondary research and based on the data found researcher decided to focus on Ulyanovsk region, located in central part of Volga district. Geographical location, availability of natural resources and economical strategies of the town with specific focus on mining development perfectly matches the requirements of this research. Sample size of 2-4 mining organisations in the region will give an unbiased opinion and will help to answer the research question. Interview questions included both common questions and also specific questions which helped to understand and adjust cultural differences and geographical specifics. However, in order to achieve better results and reduce the vagueness of the results, interviews were conducted during the last year of the research as this gave an opportunity for the researcher to add extra questions in the case, if data will not give a specific answer. For this research 3 out of 4 mining organisations agreed to participate and answer questions of the interview. Nature of business of the companies in questions included brick production, extraction of mines for the further production and extraction for resell. Official emails were sent to the participating organisations and agreement been reached for the date and time most convenient for both. Since the researcher located physically is in the UK, and interviewer participants are in Russian Federation, it was decided to conduct interviews over the call. Especially taking in consideration Covid -19 and restrictions on travel and social distancing. It is always an advantage to conduct interviews in the same language as written work, however it is not always a possibility. Therefore, one interview was conducted in Russian language and lately it was translated into English language. Researcher agreed to interview one mid management employee of each participating organization on order to get an access to the essential primary data. The reason behind of choosing to interview the mid management employee was that such employees not only have an access to more information rather than a manual worker of the firm, it is also believed that mid management less biased to answer question honestly, compare to CEO or owner of the business. Each interview was completed within 20 min time which believed to be efficient and satisfactory for the research at that time. However, after initial analysis of primary data it was clear that researcher needed to set up a second round of interviews with the same 3 employees in order to get more specific data to satisfy hypothesis and answer the question of the research.

The researcher included specific questions in order to fulfil the gap in the literature therefore, interview questions focused on:

- general information of the organisation within the industry
- the advantages and disadvantages of the bilateral relations
- the decision-making strategical process, what exactly influences the decision on price and if there are any long-term side effects from it
- the importance of innovations and investments
- bargaining power effects and sustainability in the long run

All interview questions are presented in the Appendix 1 and 2 of this research paper. The successful collection of the above information in question will lead to the next stage of the research, and it will be important to the researcher to link already existing theory to the new findings. Correct interpretation and use of collected data will either provide the true or false statement for the sun-main hypothesis and, therefore, will allow confirming the main hypothesis.

9.5. Validity, Reliability and Transferability

The validity of the research is the suitability of the data, processes and tools used for the specific research. At the same time, research will be considered reliable if it can be repeated. Therefore, it needs to be consistent (Leung, 2015). Moreover, it must be considered that findings potentially can be used in other contexts. Therefore, they must be carefully collected and analysed (Bryman and Bell, 2011). There are three types of research validity, which help to identify if the work of the researcher is reliable. This includes:

- construct validity (methods of data collection correct or not);
- internal validity (the relationship between different variables)
- external validity (ability of generalising of the finding and application of them to chapters of the research)

For this particular research, construct validity should not cause any major problems. The interview allows the researcher to get the desired answers, plus open-ended questions will help to

justify the hypothesis created. Moreover, taking into consideration that results from the primary data collection will be analysed, the secondary data and theory will be used for final confirmations. According to Yin (2003), the ability to use specific numbers/cases instead of sampling the whole industry will expand the basic theories and will give less generalised results but more specific ones. This reduces the chances of negative influence of the external validity. Furthermore, internal validity can be affected by variables, which can put findings under question due to changes during the process of conducting the research. This can include new laws and regulations or a crisis within the industry. However, if this is due to be happen, this either can be substituted by extra method of data collection or can be placed at the limitations sector.

Fundamental concepts of the theory would not change over time, therefore reliability of the research can only be slightly interrupted. Further studies of the research problem can be undertaken, as standard methods of analysis can be reapplied to a slightly different scenarios. Different countries and be used as an example for further research, however numerical data can be changed during the time or based of geographical locations can be considered incorrectly. However, any new circumstances should not change the final fundamental conclusion.

For this particular research, it is highly important to consider several aspects of validity, reliability and transferability. This includes the adoption of the research strategy overall, careful consideration of the data collection methods, correct use of the sources and data from it, correct use of theory and finally, correct method of analysis of primary data collected. The overall strategy could be considered as successful, as current secondary data helps to answer the sub-main hypothesis, therefore creates a route to solve the problem of the research. Data collection methods can be divided into two parts: secondary data, which is available online and data that will be collected via survey method. The usage of both methods is considered to be more effective; therefore, research can still be valid and reliable. Moreover, it is believed that data from this research can be applied to similar industries, and developed theories or hypotheses can be used to make future decisions.

9.6. Ethics of the research

Ethics plays a major role in the research, as it focuses on the honest gathering of data, honest recording and reporting of the data, based on the gathered information, new theories can be boiled, or existing theories can be justified (Greenfield, 2016). Ethical decision-making in research includes ethical framework (appropriate and defensible course of action during this particular research), ethical regulations, professional guidance and disciplinary norms (confidentiality), legal regulations (decisions about procedural and emergent of ethical issues) and individual moral framework (decisions which

anticipate prior to a study commercing and emerging throughout the process of the research) (Wiles, 2013). All the above must be considered prior to the research of the primary data collection; moreover, all the forms and procedures must be completed in accordance with the university guidance, must be approved, and in case of any changes, must be immediately informed. Moreover, ethics includes the political aspects of the research. The nature of the projects involved research in two different countries, and all the laws and regulations must be considered throughout the research.

9.7. Limitations

Every academic research has its own limitations. Therefore, a few main aspects that might affect the overall performance must be considered. Initially, the lack of specific data might put the researcher in a position where the research options need to be reconsidered. Moreover, some of the data might be old/out of date or even incorrectly presented by authorities or other researchers. Methods of data collection might not give a proper result or might be limited. Therefore, the researcher must consider additional methods of data collection to fulfill the research needs. In case of the lack of data, which will justify the theory, research may choose a different sampling technique to fulfil the research. Furthermore, a researcher needs to consider the level of bias from both parties of the research process. Initially, mining organisations might be biased to themselves while answering the questions and at the same time researcher might use specific answers in order to substitute the hypothesis. Finally, the researcher must consider the events of unpredictable events/conditions and must use similar or safe techniques of getting data for the research.

The next chapter of the research will focus on the analysis and relation between the theory discussed in the first chapters and the industry itself. These chapters will cover the link between bilateral monopoly and mono towns/clusters, discuss the importance of investments and innovations, and discuss the link between economic growth and natural resources. The chapters will followed by the importance of sustainable development of the industry and will explain the matter of the above theories and ideas, which could lead to a sustainable competitive advantage for bilateral monopolies in the Russian mining industry. The next chapters will also explain to the reader the connection between theory and the mining industry by identifying and exploring the gap in the literature and will help to find the answers to the research questions.

10. Bilateral monopoly and mono towns

A monopoly is a market structure that assumes only one firm produces a product/ service with no analogues present. Therefore, buyers have no choice because there is no product differentiation (Gilbert, 2017). Bilateral monopoly, at the same time, operates on the relationships between labour market and organisation (Haiser, 1970) or resource maker and organisation (Lewis and Lindsey, 1968).

Mono towns or mono cities are a type of business structure where either a town/city has been built around the extraction or production area. Moreover, the whole town/city works for one manufacturer/organisation and, therefore, creates an atmosphere similar to a bilateral monopoly. However, to make sure the above statement is actually valid, a deep analysis must take place. Therefore, to understand why both bilateral monopoly and mono towns/cities can be considered as a similar market structure, an analysis has been made. The table below outlines the initial ideas and basics of the link the author is analysing and developing in this chapter.

Bilateral Monopoly	**Mono towns/ mono cities**
single buyer = single seller	single industry- single labour market
pricing decisions = cooperation and agreement	pricing decisions = cooperation and agreement
working along each other for profits and goals with some governmental support	working along with government or national industry and towards profits/goals

Figure 3 - Bilateral monopoly/mono towns

To start the discussion, understanding the basics of bargaining or business-to-business relationships is essential. Dabholkar et al. (1994) suggested a framework or approach to the bargaining of social psychology and economics so both parties can develop long-term relationships rather than one-time transactions. Therefore, the development of such long-term relationships depends on different aspects. Kong et al. (2017) suggested 'trust' as one of the successful aspects of good bargaining.

Compagna et al., (2016); Brett et al., (2011); and Naquin & Paulson (2003) agreed on the importance of trust in the negotiation process moreover Schweitzer et al., (2006) and Ferrin et al., (2008) agreed on the importance of the long term bargaining agreement. The second aspect of the bargaining

relationship is «power», and this has been suggested by Huang et al. (2017). Bargaining power positively affects the organisation's performance and, therefore, moderates the economic cycle. Lee and Yan (2019) developed the third aspect of good bargaining. Authors suggested
«collaborative innovations» as a successful strategy and such system will support to resolve bargaining problems and build a good long-term business relationship. Lastly, the benefits and negative factors of «financial performance» have been analysed by Cho et al. (2019). Hillman & Dalziel (2003) and Pfeffer & Salancik (2003) confirm the theory of resource dependency and, therefore, the performance of the organisations creates a specific atmosphere.

Bargaining and cooperation processes are similar, however there is one main difference. Crook and Combs (2007) explain bargaining as power over the weaker partner and the stronger opponent using it to create a competitive advantage. Barney (1991), Hicks (1963), and Yan & Grey (1994) confirm that bargaining may not always be a benefit for a competitive advantage, as during the process, one of the partners unwillingly takes care of the less attractive role with the operation and therefore distribution of the advantage is un-proportional.

One of the most important aspects of a successful business is the ability to gain a competitive advantage over its rivals (Porter, 1989). As it was discussed and analysed in the previous chapters, bilateral monopoly's main advantages are the ability to work in partnership toward the same goals and negotiation on the price for labour (Berg, 2015) and materials (Morgan, 1949). Moreover, bilateral monopoly relationships provide the ability to work in cooperation with the government, therefore helping to negotiate taxation and legislation (Lewis et al., 1986). At the same time, mono cities/towns work together (nation/people and manufacture/mine site), as they simply cannot operate without each other's support and help (Kryukova et al., 2015). Moreover, the mono towns chapter of this research paper explains the principal characteristics of mono towns/cities, as well as their abilities, goals, and challenges. Similar to bilateral monopoly relationships, mono towns/cities provide support and assistance in order to operate at the desired level, therefore achieving a competitive advantage over similar cities/towns within the region or country.

The main reason for the working partnership is to gain the ability to compete and gain an advantage over its competitors (Smith and Cannan, 1976). There are always different ways of gaining a competitive advantage for organisations, such as a production of a unique product (Lado and Wilson, 1994) , having better quality than competitors, using advanced technology and innovations (Schumpeter, 1942), hiring more qualified labour or exceptional customer service (Winter, 1993). However, it is also very important to identify the potential problems during the process of cooperation (Mahama, 2006). In order to develop valid methods of action for the regulation, coordination of the economic interests of the parties must be involved (Li et al., 2018). Moreover, it is important to

consider methods of balancing the interests of producers and consumers and the natural-cost method of differentiating the profits of such users. Therefore, it is considered to be preferable to achieve an advantage over competitors (Tuck et al., 2005).

Furthermore, looking at cooperative relationships from a diversification perspective is valid. The concept of regional industrial diversification has been explained by Conroy (1975). The author suggested that the relationship between the economic structure of regions and stakeholders can be unstable in a single industry. Redd and Luffman (1986) suggested that the diversification of individual objects remains largely unexplored, and the use of fundamental principles has been lost and must be applied to specific situations. Antonova (2016) highlighted the importance of the economic study of the mono towns or cities, as this affects local population and employment, as well as social and cultural aspects. Moreover, Kryukova et al., (2014) confirmed the importance of the diversification of the economy of a single-industry city, as this not only allows to overcome the indicated dependence of the city but will also provide an opportunity to continue development for most cities. Yakushnina (2019) also highlighted the importance of diversification, as it leads to sustainable development and technological renewal.

The mining industry significantly impacts the development and expansion of subsidiaries and secondary industries (Humphreys, 2001). Technological use of metal, starting from extraction, row production and production of parts/ goods/services, as well as electronics, leads to the competitiveness of the mining industry and is based on the efficient use of mineral resources (Ala-Haerkoenen, 1993). In addition to this, the development of mines is directly related to the rise and development of local infrastructure and the development of business related to the distribution of finished products (Levitskay et al., 2017). Therefore, fundamentals of cooperation are essential at all stages, and it can be achieved through bilateral relationships within mono towns or cities.

McElroy, (2012); Heath, (2000); Lebre et al., (2017) and Johnson (2017) agrees that the foundation of the mining industry consists of technology, education and training, infrastructure and equipment, laws and regulations, management and operation, environmental protection and the application of information technology IT. Without accurate policies, a network of cooperation, a developed educational system, and adequate conditions for bilateral relationships, mono cities/towns won't be able to function at the level that they are supposed to (Alves et al., 2017). Economic regulation of mine use in the industry should be carried out through a developed mechanism based on the unity of two fundamental areas: harmonising the interests of producers and consumers of mineral resources, as well as managing relations between mine users and the owner of the lands (government or private), taking into account natural and market factors (Gylfason, 2002).

To conclude the above, an analysis and discussion of the link between bilateral monopoly and mono towns or cities have been identified. The developed idea of the bilateral relationship between organisation in mono town and the government gives an opportunity to identify the specific behaviour between resource management, dependence of the market and cooperation. The power relationships between buyer/ seller and industry/labour market lead to the development of a favourable strategy within cooperation and agreement. As it was outlined in the chapter, working with each other in both ways creates an advantage over competitors both internationally, nationally and even on a local basis. This creates one more opportunity to discover and leads to the question of how to achieve sustainability. The closed theoretical relationship between bilateral monopoly and mono towns provides the researcher the ability to find the main answer to the question, which is how the mining industry works with the strategy for the price and how the price set decisions are made. Partnership relations, cooperation and diversification help to gain a competitive advantage over rivals and, therefore, create the ability to upgrade or develop the price strategy. Moreover, since technological aspects is highly important nowadays within the industry, once again, pricing strategy is essential and good working partnership relations will only benefit the process.

11. Investments

Investments in the economy are an essential part of achieving monetary policy objectives, and they can have long-term effects and consequences on the country or industry (Sawyer, 2002). At the same time, Foreign Direct Investments (FDI) plays an important role in the international economy (Denisia, 2010). Initially, Hymer (1960) and lately, Dunning & Rugman (2002) defined the theory of FDI as an important mechanism for the economic development of all developed countries. Lall & Narula (2004), Bjorvant et al., (2001) and Iamsiraroj (2016) agree that the potential for a significant positive impact of FDI on the economic development of the country is due to the fact that foreign direct investment is not only a source of financing the organisations, but a set of assets for profitable business development with a significant impact of the company investor to manage it. Moreover, Denisia (2010) also suggested that positive relationships between economic development and FDI helps to generate employment, high productivity, more financial support and advanced technology. Furthermore, Chang and Rhee (2011) believe that FDI is one of the strategic methods to gain a competitive advantage, and at the same time, Liu and Wang (2011) highlighted the importance of supportive government policies as a source of motivation. This part of the research will develop,

analyse and evaluate the idea of investments to the mining industry, its objectives, opportunities and issues.

Different types of investments could be considered in the mining industry (Babcock, 2018). Investments tend to be viewed from the monetary perspective (Modigilian and Miller, 1958), however investments into social projects within the industry can help to develop an idea of the potential growth as well and also needs to be considered (Esteves, 2008).

Investment in skills (Soderbaum and Teal, 2010) and technologies develops sustainable growth (Dessureault and Scoble, 2013). According to Dessureault and Scoble (2013), development and investment in new technologies are the key to competitiveness within the mining industry. This included cost efficiency, flexibility and safety. However, at the same time, Hilson (2000) explained different barriers to implementing technologies, which include legislation and the economic situation itself at the present time. Borensztein et al., (1998); Nelson & Phelps, (1966) and Helpman & Grossman (1991) explained the essence of FDI in the process of technology diffusion, as it closely linked to the development of the economy, and therefore the ability to gain competitive advantage. Blomstrom and Kokko (2001) looked at the FDI situation from a different side. The FDI created a pullover for human capital, which consequently leads to education and knowledge and brings benefits. According to the authors, such a scenario attracts more investment and, therefore, develops labour skills. The normalisation of the investment regime for mining occurs at the time of technological changes (Bridge and Warhurst, 2009). The combination of technological development and productivity improves the quality and gives the ability to achieve strategic goals. Therefore, the author suggested the idea of joining ventures and transfer of the technologies for cleared operations, which leads to a competitive advantage.

Gregorio (2005) explained the role of the FDI and natural resources in economic development. The author, along with Claudio (2005), identified that FDI in land resources exploitation often play a very important role in economic growth. During modern times, many industries are trying to develop and move toward high-tech, including mining. According to Bartos (2007) mining industry rarely use or develop revolutionary technology. Furthermore, Asiedu (2006) developed the link between FDI and the country's development level. The results appeared to be controversial, as the large number of natural resources tend to attract more investments; however, lower corruption, good infrastructure and educational level have similar effects.

Vivoda (2017) discussed the range of political, economic, and social factors in her work and identified the areas of risks investors need to consider within the mining industry. It includes positive financial return, geographical opportunities and life of the deposit. Investments in large projects of government-owned companies in the industry would be greatly facilitated by the stability of the

political situation, allowing the ruling circles to make relevant large-scale decisions (Jensen, 2003). Moreover, Chen and Chen (1998) demonstrated the linkage of the importance between location choice and FDI. In this case, smaller organisations tend to have more sensitive relations compared to the FDI choice of large organisations. Gramlich (1994) and Johnson (2017) discussed the importance of affordable infrastructure, as is one of the most important features of the projects. At the same time, Collier (2017) discussed the crucial importance of the government imposing and enforcing regulations for infrastructure costs. Moreover, author suggested that such regulatory projects will protect the national interests.

Traditionally, the most difficult in the development of single-industry towns is attracting investors. This is due to the peculiarities of the economic condition of the respective municipalities, including the lack of land prepared for the arrival of investors and provided with the necessary infrastructure (Zamyatina and Pilyasov, 2016). At the same time, Farooki (2012) and Hargrave et al., (2017) noticed the growing demand for mining equipment, which is closely linked with the development of new deposits and the development of new projects. Such operations lead to an increase in existing production volumes, which depends on the adoption of large-scale investment decisions, primarily in the public sector of the economy.

To conclude, it would be valuable to say that FDI is one of the options to gain an advantage over competitors within the same sector. It is clearly seen that positive relations between organisation and international or national investor is one of the important and strategic aspects. Moreover, FDI provides the ability to develop technology, employability, and social atmosphere, thereby gaining capital. The government creates legislation for specific sectors and, therefore, gives opportunities for investments in human capital. Finally, based on the above analysis, it stands for a more positive aspect of the business operations, therefore giving a variety of options on how to compete and achieve competitiveness successfully.

12. Link between economical growth and natural sources

The initial idea of the problem was described by Sachs and Warner (1995), who composed samples from different countries. The link between economic growth and natural resources has been discussed by various authors later on, where Gylfason (2002) described the link as «nearly always the same'. He suggested that dependence on natural resources is the subject of influencing variables to

enhance growth. Sachs and Warner (1995) also discussed the linkage between economic growth and natural resources and provided as an example core leading countries full of resources, such as the USA, Canada, Australia and European countries. At the same time, Brunnschweiler (2008) suggested, along with other authors, that natural resources can be viewed as an a curse, rather than a blessing'.

There are a few ways to look at this problem since many variables include a discussion of the link between two. By looking at this from a human capital perspective, lower educated assets (people) create less potential for growth, therefore reducing the potential for economic development. Gylfason (2002), therefore, suggested that more economic growth can be achieved with more educated assets. In contrast, by looking at this situation from a different perspective, Matsen and Torvik (2005) developed the link between long-term growth, which depends on the export of exact goods at the right time, along with the theory of Hausmann and Rigobon (2002), who believed in the trade structure creates the ability to not suffer from the natural resources wealth. Moreover, Manzano and Rigobon (2001) suggest that debt is one of the issues the country is suffering from and that it has no ability to use its resources for growth. Therefore, Stijns (2000) draw a line in the relationship between resource abundance and economic development stands out against the backdrop of complex mechanisms by which resource-rich countries can receive both growth and benefits as a result of their natural wealth. Lately, Solovitskiy et al., (2017) developed an idea based on one of the Russian mining areas, the Kemerovo district which suggested that sustainable development of the mono cities needs to overcome the development of urban mono-towns overall and mining organisations itself tend not to contribute toward the sustainability.

In order to find sustainability Atkinson and Hamilthon (2003) developed a resource curve hypothesis, where they agreed that government struggles to manage largely resourced countries, therefore poor stability and sustainability of revenues is arises. The nature of sustainable growth consists of three main aspects: social cost problem, future generation and nature (Simonis, 1990). Those main aspects directly links past, current and future balance of wellbeing (Gelb and Assiciates, 1988). Since sustainable growth depends on the decisions that have been made towards the future, this agrees with the above authors and present economic decisions need to pursue investments and savings from the natural resources extraction.

13. Sustainable development in mining industry

13.1. What is sustainable development?

The initial concept of Sustainable Development was developed by the Brundtland Commission in 1984, and it included the basic 'rules' of development (WCED, 1997). The initial aim of the concept was to help nations in the way of society development and mainly the development of needs for the current generation and the ability of future generation to meet their own needs (Borowy, 2014). Thereafter, the concept of sustainable development became popular and is being used today by planners, politicians, business and practitioners (Burton, 1987).

Based on the research of Veleva et al., (2001) sustainable development is a company's strategy, which harmoniously combines business, social and environmental activities. The situation in the global economy has led to the fact that employees, customers, and investors strive to work with "sustainable" companies, as they are stable and reliable as an employer, business partner, and investment target (Kolk and Tulder, 2010). It is important to understand the relation-connection between economical, social and environmental (Epstein and Buhovac, 2014).

According to Warner and Sullivan (2004) the activities of the corporate sector have a huge impact on the development of society. There are several factors that have been described by Counsell & Haughton (2003), Lund & Hvelplund (2012), Zarsky (2005) and Venkataraman (2010) in the past and majority of authors came up with the below ideas on how business affects the sustainable development of economy:

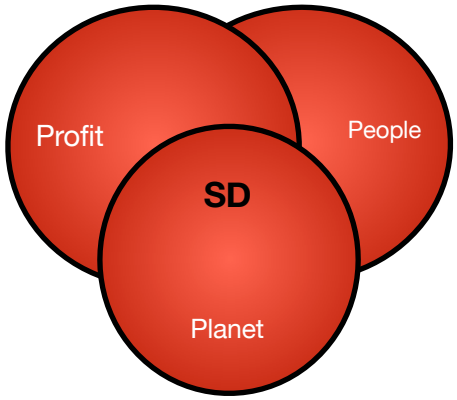
- through the creation of jobs and the payment of taxes,
- on the environment through the control of technologies used and
- investments in environmental protection,
- on the social component of the country's sustainable development by ensuring equal access to jobs, fair wages, and social programs of various directionality.

Thus, sustainable development of a country is impossible without the adoption of relevant principles by the business community; therefore, recently, the focus of analysis has shifted from sustainable development at the macro level to the micro level. Sustainable development of a company implies activities aimed at achieving business goals (Fleming et all, 2017), while respecting the interests of stakeholders, and future generations are considered as one of the important groups of stakeholders

(Heikkurinen and Bonnedahl, 2013). There are aspects of sustainable development which are emphasised with economic, environmental and social and can be combined in the acronym of 3P's. The below Triple Bottom Concept (Graph 4) have been introduced by Elkington (1994).

- People
- Planet
- Profit

This can be easily represented and explained in the simple chart below.



Graph 5 - Triple Bottom Concept

The growth of responsible investment confirms the popularity of the idea of sustainable development in the business environment. The global volume of socially responsible investment is currently estimated at 45 trillion dollars

in capital, and this includes over 200 institutions, banks, insurers and fund managers. (United Nations, 2020). This also increases the number of published reports in the field of social responsibility and sustainable development, and according to United Nations reports the growing popularity of sustainable development standards and guidelines.

Moreover, a growing number of publications on the implementation of strategic programs for sustainable business development, as well as the impact of the principles of sustainable development on the company's performance, indicates that there is growing interest in the introduction of the concept of sustainable development at the company level (Baumgartner and Rauter, 2017). At present, attention to the justification and implementation of sustainable

development is mainly shown by business community representatives, and academic circles are not yet sufficiently involved in the study of the issue (Burrito, 2019). However, according to Filho et al., (2019) higher education institutions contribute towards sustainable efforts and plays central role. Therefore, most studies are highly specialised and practical, and at the fundamental, theoretical level, the problem remains poorly developed in many sectors.

13.2. Sustainable development in mining industry

In order to identify the developed country a few aspects must be considered, and in this part of the research we will be discussing mineral economies. According to Auty and Mikesell (1998) countries with rich resource powers facing problems in achieving sustainable development compare to poor resources countries. Therefore, one of the aspects that needs to be considered is the contribution and maintenance of the development, even during the temporary reduction of export or during production decline.

Mining is one of the main factors of economic growth and social development in a number of countries rich in natural resources, where the local population often receives significant benefits from mining (Babi et al., 2016). Base on the research of the Ohimah et al., (2019) and Pimentel et al., (2016) the potential benefits from the intensive development of resources are possible only under the condition of a long- term, responsible approach to the development of the mining industry and its management and the income provided by the industry. However, based on the research of Air et al, 2019, mining can have negative economic, environmental and social consequences. This leading to increased macroeconomic fluctuations (Wang et al., 2017), reduced incentives for investing in infrastructure and human capital (Mancini and Sala, 2018), and weakening the institutional base and management systems (Carvalho, 2017). Inadequate environmental and social management of mining projects can have a significant long-term impact on the state of resources, biodiversity and local communities.

Based on the research of Folfe et al., (2007), Lockie et al., (2009) and Petkova et al., (2014) there are only a few papers discussing social sustainability and its development in mining industry and the majority focuses on the social impacts. It is important to view the situation for both sides. Regular requirements of the sustainable development limits to the needs of future, decisions on natural resources and ecological aspects (Suopajarvi et al, 2016). The implementation of the concept of sustainable development at the company level requires the introduction of appropriate improvements

in the management system and organisation of its activities (Endl et al, 2019). In fact, a significant modification of the management system (Panina & Dochkin, 2019) is a strategic management option. It is necessary to develop goals for the three components of sustainability: environmental, economic, and social. It is hardly possible to achieve sustainability without change in the organisation. Social and environmental costs will occur while the implementation of sustainable developments will be in adaptation process, especially with mining industry since they already have poor return of capital (Humphreys, 2001). There is a few cases on the different successful approaches, including MEG (1993) and Wismut GmbH , however no single approach to the management of the company have been developed. An analysis of the best practices in this area makes it possible to find out that the company's sustainable development strategy is most effectively implemented when the company's management recognises the high status of the issue and at the same time the personnel of the company are involved in the processes of formation and implementation of the strategy. Furthermore, it is important to remember that local and international investment into sustainable development is an important part of the whole process for the mining industry. According to Zarsky (2005) investment is the essential part of the economical growth. Sustainable development is closely linked to the different aspects of investments, including technology, money, ideas and values.

All the above leads to one main question: ***Will the above theories and ideas lead to a sustainable competitive advantage for bilateral monopolies in the Russian mining industry ?*** As it was mentioned in previous chapters of this research, competitive advantage and competition is one of the important aspects for mining industry. However, the specificity of methods organisations can choose can seriously damage the environmental, social and economic conditions.
It is always important to take in consideration all stakeholders (internal and external) and according to Henderson (2001) and Fridman (1970) government is one of the ways for sustainable social development, however organisation must consider its own needs (profitability). Mining towns according to Hogan and Berry, (2000) and Richmond and Sharma (1983) do have a direct link between the development of the community and economy. Sustainable development idea leads the government to develop frameworks for those organisation and include the specific measurements and assets they can use to check the performance in all aspects (Azapagic, 2004). However, Cronje and Chenga (2009), Solomon et al., (2008), Craig (2015) and Chamaret (2007) believe that new frameworks only put more pressure on the mining organisations, it leads to the conflicts with the stakeholders, and it challenges the further development at the dispersed levels/speed. Furthermore, sustainable development can impact the reputation of the mining organisation (Tuck et al., 2005).

Brammer and Pavelin (2004) identified the link between reputation and social sustainability performance. It works in only two ways: poor reputation and good social responsibility development or vice versa. However, Hanson and Stuart (2001) believe that corporate reputation must be managed carefully, as this leads to one of the aspects of the competitive advantage. At the same time, technological aspects of the competitive advantage also damage the sustainable development process. Due to the nature of the process, waste management must be carefully considered and technologically developed (Franks, 2007), moreover the poor managements of the waste from the production/ extraction (Kempton et al., 2010; Mudd, 2010) increases the risk of the sustainable development and, of course, competition (Boger, 2009; Kemp et al., 2010). According to Shrivastava (1995) competitive advantage can be gained through the management of ecological issues, including natural sources, reusable energy and waste management. Moreover, Hitt et al., (2005) and Pearce & Robinson (2011) agreed on the theory, where competitive advantage can be achieved through implementation and control. Therefore Delmas and Toffeel (2004) suggested the organisations responsible to their stakeholders in taking environmental actions, and specific management system must be in place (Ruokenen and Temmes, 2019). The fundamental sustainable development issue, according to the Franks et al, (2011), is technological waste management and the process must be carefully managed. It comes to the conclusion that in order to gain long-term competitive advantage, mining organisations must use the guidance from the sustainable development aspects.

Moreover, it is important to remember the price factors that influences the sustainability. The profitability of this sector, according to von Below (1993), depends on the constant extraction of minerals, technological development and environmental aspects. Moreover Reshetnyak (2019) and Markowski et al., (1987) both suggested that mining industry is basics of sustainable economy and plays a major role in geopolitics. Therefore there are many risks in making decisions, as this could shift the global mineral resources market.

The next chapter of the research will focus on analysis of data, which will lead to the results and conclusions.

14. Results, interpretations and conclusions

The main focus of this chapter is an analysis of the data and interpretation of the results found in order to create a constructive solution to the problem the writer had created at the beginning

of the research. This part of the thesis will also test hypothesis and will describe the different aspects of the phenomenon. Data analysis in this chapter will be used to connect related variables of the theory.

It is important to understand and evaluate the main characteristics of the research country, as such information will help to find a solution to the research problem and answer the research question. The first part of the research 'glance' view of Russia has been presented, including aspects such as employment and unemployment rate in the industry, as well as main characteristics and dominant percentage of mines extracted or goods produced. This part will closely focus other aspects, which are based on regional qualities of the mining organisations. It is important to have a clear picture of the case study town and it is explaining the relevance for this research.

The researcher decided to pick a specific region in Russia - Ulyanovsk region. The decision was made after initial analysis of the theory and based on the criteria whenever a region can be qualified as a type of mono town. Such criteria have been explained in part 7 of the thesis. One of the distinguishing criteria in this case is that a chain of organisations that have a technological connection between themselves and work for one specific end market was identified. Moreover, the income of the local budget largely depends on the work of one or more organisations in the region. It was essential to identify, as it was agreed and stated by several theorists including Crowley (2015), Levitskay et al., (2017) and Kryukova et al., (2015). It is believed that the development of stable economic growth in the region must be placed at the top of the priority list.

The population of Ulyanovsk region itself is 625 462 people based on calculations in 2021 (standata.ru, 2022). According to official data of the regional statistics, 25% of the population in the region is employed with industrial organisations (Rosnedra.gov.ru, 2021). Key industries include mechanical engineering, building materials industry, mining and metalworking. Regions ranks at 2nd place in total volume of engineering production. The external environment for development has been dramatically developed since the early 00' due to an increase in demand for domestic goods (The Government of Ulyanovsk Region, 2022). After recovery from the economic crisis, data available since 2011 shows a positive trend in the development of the local region compared to similar nearby regions, with a dramatic increase of 99% in the mining sector between 2009 and 2011 (The Government of Ulyanovsk Region, 2022). Activities such as the production of other non-metallic mineral products, metallurgical production and the production of finished metal products, the production of machinery and equipment occupy from 4 to 5.5% in the structure of manufacturing industries. Such a percentage shows a big involvement and contribution of such industry to the development of the economy. According to Stirey and Hall (2017), organisations within this

percentage of the industry not only provide the population with jobs but also support and develop construction, energy, transport and social infrastructure.

The region location is at the crossroads of important transit corridors – both east to west and north and south, which automatically gives Ulyanovsk region an advantage of populated transportation infrastructure that includes highways, rail and water. Notable economic sectors include building and construction; agriculture, mining and logistics &transportation. Ulyanovsk region closely located to several central districts of Russian Federation including Tatarstan, Bashkirtostan, Nizny Novgorod and Samara, with population of 29 million with nearly 1/3 of Russian innovative companies and around ½ of technological exports. Such data provides with a confirmative statement of the signific industrial development. Education level and number of innovative project not limited to regional development, but contributes toward the development of the whole country. With such significant potential regions in the district attract higher volume of investments, human resources and skills which developed under the conditions of bilateral monopoly. Federal support of industrial clusters or in a smaller scale support of mono towns is exactly the right specification for this research. Popularity of mono town structure in the district emerging and developing the growth toward the economy and mining industry. Ulyanovsk region offers many business opportunities in the automotive, aerospace and manufacturing areas with focus not only to local distribution, but to exports to the world. With convenient location, wealthy market and favorable technological development, region can offer partnerships across different sectors and involves various partners. Furthermore, cooperation between regions in the district allows to share knowledge and provides with massive opportunity to advanced production and development of stable relationships.

The region itself is rich with several mines, including oil and natural gas, oil shale and peat, as well as building materials: diatomites, tripoli, flasks, clays, sands and sandstones, and mineral paints. Moreover, numerous clay deposits have been found in the region over the last few decades. They are used as raw materials for the production of red bricks, tiles, dishes, facing plates, tiles, art and other products. The ability to extract unlimited amounts of mines allows regions to develop in a quicker way. However, it is impossible to develop without support form government (Panasyak and Podovik, 2016). Therefore, the Ministry of Economy and Industry of Ulyanovsk region is developing and implementing various tools to support local industry.

Main aspects Ministry of Economy and industry of Ulyanovsk region considering are:

- Attraction of investments
- Support for innovations
- Support for organisations itself
- Development of mono towns

- Support of small businesses and organisations

The investment climate of the region is favorable for investments from all over the world. According to data from the office investment portal of the region, over 90 billion rubbles have been invested into the economy of the region in the past few years. Out of 160 successful investment projects (including inductees such as machinery production, engineering, mining and electricity), 30 of the projects have a volume of investment of over 47 billion rubbles. At the same time, an FDI level of over 650 million dollars has been accumulated since 2005 in the region(Invest.Ul, 2022).

Financial flow positively affected the index of production in the region for the last 10 years. Since 2015 index of production have constantly been growing in the region, in 2017 increase of production strand at 106.7% (Uldelo, 2018), 111.6% in 2018 and in 2021 stands at 113.3% (NationalProject73, 2022), which is higher than average in the country (in Russian Federation index of production in 2021 was at 105.3%). Moreover, unemployment rate have been at 4,9% in 2017, 3,6% in 2019 and 1,88% in 2021. This data shows a positive trend of investment in the region and its own economic development.
Investment into technologies is another important aspect that must be considered when secondary data is analysed. Based on statistics from the Ministry of Economy and Industry of Ulyanovsk region, the region is rated in the top 10 of the most innovative towns in the country. The region, with high potential growth, focuses on support in research activities and higher education segment. In total 5 higher education institutions work along government in order to develop infrastructure for future growth (Econom73, 2022). Potential benefits from intensive development resources are possible only under the condition of a long-term, responsible approach to the development of the mining industry and its management and the income provided by the industry (Ohimah et al., 2019 and Pimentel et al., 2016). However, this cannot be confirmed yet, and further investigation needs to be carried out.

The next part of this chapter will present an in-depth analysis of the regional situation, which will include national legislation, taxation policies, government financial support plans and resource availability for the region. Furthermore, secondary data will be analysed and evaluated the ability of mining organisations to gain a competitive advantage through the possibility of implementing advanced production

14.1 National Legislations, Monopoly and Competition law

Laws and regulations are made to control and regulate any industry. Such an important factor is essential for the mining industry. Regulations and special laws help to control and regulate the power of any involved party, including the organisation itself, employees, citizens and the government.

For an industry such as mining, it is highly important, as it involves control of the global market, GDP of the country, local and national employment & unemployment rates and the welfare of its own citizens. As was previously discussed in early chapters, the mining industry is commonly based on the town concept. Therefore, it is important to mention that monotowns tend to be affected by the power of either the organisation and its employees or the government. This is due to its primary location and dependence on the nearby city and the country's economy itself.

Government is monopolist by objective reason of its natural resources (Sharkey, 1982). As per research of Li and Shuai (2019), monopolist (in this case, Russia) have a unique economic position with unlimited control of the volume outputs of the entire industry. Therefore it must be regulated. All bowels of the earth within Russian Federation territories belong to the government (Rosnedra, 2022). Mining organisations need to obtain permission (Licence) from the government body to use natural resources (Federal Agency of Bowels Usage, 2022). This means that the government itself is the monopoly in this case. When licences to use natural resources are granted, both government and mining sector relationships automatically lead towards cooperation for their own benefits. This not only creates a base for stable development, but it helps to keep economy and market stable. Therefore, it could be stated that a base for the development of bilateral relationships between organisation and government is established.

14.1.2 Establishment of Antimonopoly Law

As it was discussed in previous chapters, various authors such as Lerner (1934), Mainwaring (1977), Elzigna and Mills (2011), and Stano (1976) confirmed that monopoly power leads to the ability to set a price on goods and services and the ability to change volumes at any point without prior notification. Therefore, laws must be established that will overlook and control it. Anti-monopoly law of natural resources usage government individuals control the actions of both government and individuals (Geol.irk, 2022). Such law controls risks of monopoly and gives rights to operate equally in the market, which is essential for smaller regional mono towns.

The mining industry, as per the literature review, is a monopolistic industry, however, to ensure fair trade, it is controlled by the government. Moreover, entry barriers to the industry are very high (Caves and Porter (1978) , Lerner (1934), Harris (2002); Dess (1987) & Shmatko et al., (2019) and ability to compete in monopolistic conditions is hard as well. Bigger and more stably established organisations have more opportunities to develop and invest in technology and the social, economic environment. Moreover, the dominant organisation in the industry has the ability to set prices on specific mines; they have the availability to offer higher salaries and more benefits, and smaller companies stand a chance of success in this case, as they are not able to compete equally. At the same time, government is also

viewed as a monopolist. With its power to grant licences through auctions, the government controls the barrier of entry to the industry through creating specific conditions and able to make decision which will be more beneficial in its own view. Spence (1975); Dixit and Stiglitz (1977); Dixit (1979) and Galbraith (1936) explained that entry barriers to the industry, which includes anti-competitive actions such as mergers, acquisitions and agreements must be controlled. Therefore Anti-monopoly Law (Geol.irk, 2022) controls acquisition & merge for economical benefits. In this case, Russia's anti-monopoly law requires the government to monitor acquisition/ mergers if monopolistic powers arise. Therefore, FAS can control and prevent monopolistic behaviour. This ultimately controls the power of a dominant company to set prices in the market. Moreover, Haberler (1954), Cowling and Mueller (1978); Littlechild (1981) and Stegemann (1984) explained that social cost of monopoly can be damaging. It includes dependence on the salary and personal development, education and ability for personal growth. This will be explained further in this chapter.

The co-dependence of mining organisations from the government as a method for business growth and government dependence on an organisation for healthy economic growth creates a bilateral relationship. All positive aspects of having a strong bilateral relationship provide more power; however, it could lead to potential abuse of such power for own benefit by both parties involved.

14.1.3 Federal Law of Competition Protection

Smith & Cannan (1976), Hunt (2000) and Porter (1979), Marshall (1890) and Winter (1993) explained importance of competition, it is establishes expectations of profit rates, lead to equal distribution of labour and regulates interests of all parties related to mining organisation. Competition is one of the most important aspects of the mining industry, and without the support of the government, it can become uncontrolled.

Federal Law of Competition Protection (basagarant.ru, 2022) gives freedom of economic area, free movement of production, and freedom of economic activity in the country and provides conditions for the effective functionality of the market.

Government, due to its power, able to control local businesses and create unfair conditions for trade or create special conditions for profit gain, for the benefit of only certain individuals. With such power, the functionality of the market becomes ineffective. This actions leads of the creation of the dominant organisation in the region, who can easily increase/decrease salary rate and price of the product. With such fluctuation, smaller organisations have no power nor ability to compete fairly. In this case, federal law comes into play, and federal authorities act as regulatory bodies. Such authorities are able to control the power of the dominant organisation and control the government as well. Fuertes et al.,

(2014); Ahn (2002) and Swinton (1977) stated that competition is regulated by a unified government economic policy. However, the promotion of competition and the creation of a favourable competitive environment are important for economic development (Bennet, 2005).

14.1.4 Potential Monopoly Risk Assessment

There are many ways how government able to provide support and assist local mining organisation. For example, the Annual Road Map, which is yearly produced by the local government body in the Ulyanivsk region, outlines the potential risks of monopoly in the regions.
Such a road map also includes guidance on lowering risks of power overuse, preventing unequal rights in the industry, explaining the risks of exploitation of monopoly power, and helping with access to information about potential developments and investments into the region. The effectiveness of potential risk assessment helps local mining organisations to prevent competitors from taking powerful actions towards their own development, and therefore, this could prevent small mining organisations from becoming weak players in the market. Annual Road Map gives guidance for all organisations within the industry, which can be used as a base for the decision-making process. Mining organisations are able to use the table of different risks, overview their levels, seek guidance for solutions and be ready for the potential appearance of the same issue again. This also guides organisations in preventing mistakes in the future and avoiding unnecessary expenditures. Government, due to its power, resources and access to information, help local mining organisations, who are able to grow successfully in future. This creates healthy bilateral relations within mono towns in the region. It helps to create strong growth for the region and its economy and boosts social development, where decisions on price or salary can be regulated with the involvement of both parties.

14.1.5 Laws, legislations and government decrees for support and development of monotowns

Stable economical growth of mono town requires specific policies in place (Vetrova et al., 2014., Levitskay et al., 2017., Shastitko & Fatikhova, 2015). Mining organisations in monotowns not only provide the population of the town with jobs, but also commit themselves to support and develop social infrastructure, which increases costs and affects the competitiveness of products. It is important to develop monotowns in small regional areas of the country, as it increases social-economical development of the region. However, it is challenging when government support is weak. Government decrees names specific regions as an 'overtaking development regions', which guarantees stable social economical development and increase in employment. This leads to the fact that less unemployment

and more educated population increase option to innovate extraction and production, which leads to successful business growth and creates competitiveness. At the same time, advanced extraction and production cannot exist without educated employees who are specialised and trained to work with advanced technologies. Higher the advantage of production means that more can be extracted and produced, which can also be sold in a shorter period of time. With better quality and higher quantity organisation gain more power to affect price in the market. However, this requires major financial support from the government. Mono towns are not always in a position to offer financial support to their employees or society, especially when the organisation is at the early stage of development or it is a small size organisation. In this case, the government, as an interested party, is able and willing to offer financial support, which will lead to the development and stabilisation of the economy.

14.1.6 Financial support decree

The government decree to provide financial support for the development of small and mid-sized organisations has one major aim. The local government of the region works along with the financial services of the country (such as banks or local councils) and agrees on terms on how to provide financial support for mining organisations. Monetary support helps individual mining businesses to create strong base structure at the stage of development. This included free education, support with the building of infrastructure (such as road access, electricity, water supply etc.), social development and financing for small and mid size organisations. The outcome of such financial support helps mining organisations to develop faster and/or more efficiently. In this way, competition power can be gained in a shorter time, and the power of setting a price for the product or the power of increasing salary is gained by an organisation.

14.1.7 Power of monopoly and competition conclusion

From all the above findings, the researcher was able to establish certain points that led closer to finding the answer to the research question.

The power of monopoly gives no choice for buyers in the market (mining organisations obtaining a licence from the government in Russia). Looking at the theory and connecting it with secondary data from the region, it can be established that firstly, a closed monopoly is protected by laws of the country and region. Secondly, natural monopoly includes the unique or specific natural

resource of the region and open monopoly in the case of this research does not protect from competition. It also can be established that monopoly power, barriers to entry for firms to the market with existing monopolists influence the decision-making process by making organisations start playing by the rules that were created before. Monopoly power does not allow organisations to act freely, as they are new to the market and not able to compete on same level at the beginning. Such organisations tend to follow the rules of the market and can make a risky decisions in order to gain monopoly power for themselves. This

can be done by either creating a unique product or offering a product that will be at a better price rather than competitors. Barriers to entry make it harder for organisations at the beginning due to start-up costs in the existing market. However, looking at this problem leads to the conclusion that the government is, in this case, acting as a monopolist. Despite the fact that it is controlled by laws, the question to ask is to extend it is controlled. Moreover, it is hard to establish how organisations can enter the market if they are controlled by the government and rules are set in order to create economic stability in the region. It was established that the government has significant control over the industry and can be considered a monopolist by creating certain rules; however, to develop the economy of the region, the government provides organisations with certain support. Healthy competition creates good conditions for the development of the organisation. Two types of competition were established earlier in the chapters: price and non-price competition. Price completion includes the price for raw materials, the price for ready products and the salary rate. The price for raw metals and price for goods can vary between organisation and can still be controlled by the government. At the same time, the government is not able to request a specific salary rate for a mining organisation; they can only give the minimum requirement. In this case, each organisation makes their own strategic decision on what rate they are able or willing to pay for their employees. This leads to the non-monetary type of competition. Non-price competition is all about the quality and uniqueness of the product, technological advantage and innovations, conditions for employers (favourable or less favourable) and the social, economic development of the region. In this case, government is looking at the last point of social, economic development as this naturally will boost the economy of the region. The other 3 points are more important to the mining organisation, as it gives them a competitive advantage. Another important point to consider is the geographical concentration of the production for the purpose of international trade. Given the geographical location

of the Ulyanovsk region and its access to national roads, air fright and river fright, both government and mining organisations of the region are benefiting from it. Therefore it can be concluded that both work well in the conditions of bilateral monopoly and help each other to deliver the best result.

14.2 Taxation Laws and regulations, relief and subsidisation

Lewis et al., (1986) and Kryukova et al., (2015) stated that the mining industry is the one of the most important sectors of and economy. Hitomi (2017); Cagliano & Spina (2000); Wang & Chin (2008) and Neumann et al., (2002) at the same time stated that the opportunity to invest more into research and skills in the process of company formation, eventually will provide mining organisation with competitive product or service. One of the methods that can be used to reduce the amount payable at the early stage is tax relief. Tax policies are important for the mining industry, and they must be introduced by the government in order to provide support.

14.2.1 Russian taxation policy on extraction

Everything that has been extracted out of Russian soil for business purposes is taxable and calculated either by percentage of extraction or by weight (tonne), depending on the type of extraction. This important fact must be remembered when an organisation is making a decision on what price to set on a material or product. This is one of the important aspects of the research problem, as taxation must be considered as a factor to remember in pricing strategy. When organisations do research and prepare plan for how many/much natural resources they planning to extract and what volume of unusable extractions (waste) will be extracted. More importantly, what and how much, in case they do further production, or what volume of extraction are they planning to use? This calculation will identify how much they will pay for it.

Specific formulas must be used to calculate if they are making a profit or not. Russian government introduces 3 formulas of calculation:

Formula 1: price of the extracted mine= amount of the extracted mine * price of the 1 unit of mine.
Formula 2: price of 1 unit of mine = profit from sales of mine/amount of units sold=calculate price of mine/amount of extracted mine.
Formula 3: profit from sales of mines=price without VAT and excise - sum spent of the taxpayer on delivery of the mine

These formulas help organisations to calculate how much they are payable each year and if they can afford it, as such formulas take into consideration expenses which are not directly related to the extraction itself (including waste removal, weather/seasonal, temporary stop of operations). Such

formulas can be used to calculate how much organisation need to extract during extraction season and how much they are able to generate profits during the time they sell what they have or if they use it during production. When organisations make their strategic decisions on how they are planning to operate during a tax year, they can use formulas to calculate the price of the product and predict how much they will be payable next tax year. This leads to how mining organisations can gain competitiveness by investing more in technology from profits and by increasing the price of the unit they sell. This also includes salaries for the employees, which is also a competitiveness of the employee market in the industry.

However, the government must remember that some organisations cannot afford to pay taxes at the beginning (e.g. if they do not have powerful investors or they are a very small-scale organisation). This directly affects decision making process, it must be taken in account if such organisations are qualified for tax exemption. They have responsibility in front of not only the government, but employees, their families, shareholders, etc. This also will affect the price of the product they sell, and if they are not able to compete, they are out of the market.

14.2.2 Article 432-Tax Code of Tax Service of the Russian Federation

When mining organisation set objectives for the business, they can consider different scenarios on ways to develop and grow with the help of different tax codes and plan the amount of waste and production. List of tax rates depending on the specifics of the industry and their level/ amount of allowed extraction, production, waste management and it varies between 0-8%. This directly correlates with specifics of the mines and gives an opportunity for organisation to include such factors in their strategic decision making processes. Taxation in mining industry gives major money flow for the government budget. This allows government to use funds and help to develop regional infrastructure.

14.2.3 Business transaction control between two interdependent parties

Controlled transactions law on business transactions between two interdependent parties is an important aspect that must also be considered for a mining organisation. This creates a bilateral agreement between two interests. The main goal of domestic regulation of controlled transactions is to achieve transparency in transactions and to prevent the withdrawal of funds from taxation, both as a result of moving outside the country and as a result of a planned understatement of taxes through transactions with affiliates. The basic criterion for recognising a transaction as controlled is the

interdependence of the parties to the transaction and the ability to influence the results and decision-making. This makes government and mining organisations alliances, which enable them to work together and control market prices within the law criteria. If transactions between related residents of the region that meet the established criteria generate an annual income of more than 1 billion Roubles, they may be recognised as controlled transactions. Moreover, this creates alliances between extraction site and manufacturer, who are working together for the same purpose.

14.2.4 Tax service of Russian Federation

As it was discussed in subchapter 14.2.1 there are 2 main differences and ways tax is calculated: mined mineral, which is a product of mining industry (can be liquid, hard, or mix); or product that have been gained during first stage of extraction (preparation, but with use of technology). Main difference between both is the difference in values/amount and this plays major role when tax is calculated.

Therefore, the government introduced a law: Paragraph 1 of article 343 of Tax Law are privileges or 0% tax for certain types of extraction, which were not extracted as a main one by licence. Babi et al., (2016) confirmed that in countries with rich natural resources, such as Russia, local population often receives significant benefits from mining industry. Extractions, such as substandard or water, can be used for field watering and have 0% tax obligations and a lower coefficient (depending on location and local governing body). It is important, as such substandard extractions can be used for development of local community or towards some further development. This includes the usage of substandard for local construction, water supply etc. Such factors directly correlate with the fact that Henderson (2001) and Friedman (1970) stated that government is one of the ways for sustainable social development. Mining mono towns and local government do have a direct link between the development of the community and economy; however, in order to achieve it, they must work in cooperation. This once again confirms the fact that bilateral relations are essential for stable growth and development.

14.2.5 Special Tax Policy

As it was discussed in previous chapters, Manu & Sriram (1996) and Camison & Villar-Lopez (2014) stated that innovations within the organisation favour technological innovation development and therefore performance (profit, loss, extraction amount, growth) of the organisation takes the superior form. In order to achieve this, organisation require support from government. However, only in the

perfect world it can work one way. Regional government offers a special tax of 13,5% and further tax excluding for a period from 3 to 10 years for specific organisation up until they reach the break-even point, whose innovation project supports the development of the region. Mining organisations always deploy more advanced technologies and innovations to become more competitive in terms of costs. Therefore, special tax policies are a huge support from the government. Organisations receive government grants/tax reliefs for being innovative and for investing in more advanced production methods, which ultimately helps to gain a competitive advantage.

14.2.6 Financial support from government

Bilateral monopoly conditions provide cooperation support (benefit) between the government and mining organisations, which is a massive benefit for both. As previously established, the government has the ability to create favourable conditions for the mining organisations in the region and, at the same time, organisation can provide the region with growth. Furthermore, the labour market (unions) and organisations establish a certain level of agreement on terms and salary. This cannot be established without government involvement, as a certain level of minimum wage is required. The government can use taxation policies, such as tax relief, in order to allow mining organisation to pay higher salaries to their employees, which makes such organisation more favourable to work at. This is a correlation between bilateral relations between government and organisation, as with higher salary, the population is more socially developed. This leads to the point where organisations are able to set higher prices on goods and become more competitive. However, does mining organisation can survive without government financial support? The theory does not give a clear answer to this question. Therefore, further investigation is essential.

14.3. Advanced production possibilities and problems

Lizunkov et al., (2019) stated an idea of social and economical development in mono towns based on education and quality of living. Moreover, Tyulicheva (2017) and Malushko et al. (2016) stated that government involvement in education development within mono towns, including guaranteed placements, social benefits and personal development, creates a positive trend in social and economic growth.

Personal development and a strong education system are essential for monotowns, as this helps the local economy to grow and develop. Higher standards of living and a more educated community have

the ability to attract more valuable skills and experience for mining organisation. However, with a higher level of education, a higher salary is required. With a higher salary, the price of the mine is higher as well at the same time as the quality. This makes organisation competitive and creates possibilities to make its own price decisions independently.

14.3.1 Ministry of Economical Development

The Ministry of Economical Development of Ulyanovsk region's main focus is to provide support for local organisations by monitoring the inflow of investors for innovation and technological development, organisation of employment in the local region, cooperation between trade unions and employees and control of unlawful operations. Investment into skills (Soderbaum and Teal, 2010) and technologies develops (Dessureault and Scoble, 2013) sustainable growth. Therefore, the ministry of economical development negotiates between local mining organisations and national government. In this case, the local government can get essential help in a bigger amounts for local mining organisations. Furthermore, the Ministry is working on the development of local rules and legislation which support local mining organisations, and it once again directly affects decisions on how prices are set. In this case specifically: affecting salary of employees and their personal educational development.

14.3.2 Order for the creation of advancing social and economical development of monotowns

Pergelova & Angulo-Ruiz (2014) and Mowery & Oxley (1995) highlighted importance and involvement of government within the competition. The government influences policies and financial support and enforces competition on the local level among domestic firms. Moreover, additional financial support, loans and guarantees help organisations move from domestic to international competition.

The government helps to provide necessary resources, including personnel and data on available resources in the region, as well as specific restrictions and taxation. This also gives mining industry information for engineering facilities' networks. Such data availability attracts investors, which gives the opportunity to advance the operations of the mining business.

14.3.3 Special Fund for development of public-private partnership

The fund acts as a coordinator between local government bodies, local educational bodies and government policies. With this help, it increases chances to achieve development and gain competitiveness faster through additional support from government coordination (mediators between government bodies and educational bodies to help with agreements and plans for support). In this case, government acts as a mediator between stakeholders; government has more power and a higher voice than the national/federal government. Local mining organisation management acts on behalf of their employees and the business itself and raises their issues with the local government, which is responsible for making a suggestion and offering solutions to their problems. Mining organisations require skilled workers, in this case, the government acts as a negotiator with educational services in order to get much needed specific education for such people in a quicker way due to their power, ability to influence and voice.

14.3.4 Sustainable development plan

Development of mines is directly related to the rise and development of local infrastructure and the development of business related to the distribution of finished products (Levitskay et al., 2017). Industrial contribution towards Russian GDP varies between 25-30%. Therefore, the government offer financial support and informational- consultation services. This provides mining organisations with the ability to gain a competitive advantage, as the government has a direct interest in the development and success of such organisations. McElroy, (2012); Heath, (2000); Lebre et al., (2017) and Johnson (2017) agrees that the foundation of the mining industry consists of technology, education, infrastructure, laws and regulations, and the application of information technology IT.
Russian cargo turnover from 2015 to 2018 increased by 10.3%, which led the government to create a plan to develop strong infrastructure, and build safe and accessible roads, which directly increased the geographical competitiveness of the country. For example, project "Meridian" aims to create an infrastructure of 2k km of roads for access between the the border of Kazakhstan and Belarus and cover a big part of the Eurasian region. This infrastructure development uses resources of local mining organisations for building materials and work force. Moreover, this gives small to medium mining organisations the opportunity to spend more of their budget on technologies and education rather than building accessible roads, access to mining sites, and development of the local communities. This is important and Alves et al., (2017) confirmed, that without accurate policies, a network of

cooperation, developed educational system and adequate conditions for bilateral relationships mono cities/towns won't be able to function at the level that they are supposed to.

14.3.5 Corporation of development

Mining organisations always attract national and international investors. However, local government support reduces the dependency on investors only and gives more room to develop with the support of the government. The government has its interests in the development of the industry to make the economy grow. Therefore, in order to support new organisations, grants are provided by the government with the cooperation of the corporation of development. Economic regulation of the mining use in the industry should be carried out through a developed mechanism based on the unity of two fundamental areas: harmonising the interests of producers and consumers of mineral resources, as well as managing relations between mine users and the owner of the lands (government), taking into account natural and market factors (Gylfason, 2002). However, there is also a room for consideration on factors such as industry instability.

14.3.6 Industry shortage and its influence on development

Based on the research of several authors including Talalaev et al., 2020; Parfirieva, 2017; Maslennikova et al., 2018 and Fokin (2015) main problems of single-industry towns are: the dependence of the city budget and mining taxpayer, social and economic vulnerability of the population, long-term unemployment, low wages, and existing administrative difficulties in obtaining governments support.

Since 2008 there was no major change in employment within mining industry, however in 2021 it was a major change. Low salaries, minimum benefits after entering retirement age and isolated locations are not attractive for younger generation. It is a must to develop local communities, otherwise industry will suffer from shortage of employees. Since 2012, a 5% increase has been among people who would prefer to work in better conditions or in different industries with higher salaries. Monotowns using local force for its operations, however due to the nature of the operations (seasonal work, weather factors, local restrictions), and therefore, unstable salary causes disruption in employees flow. With no stable guarantee of income, local community will look into stable earnings outside of the industry for a longer term.

Lizunkov et al., (2019) stated an idea of social and economical development in mono towns based on education and quality of living. Tyulicheva (2017) and Malushko et al., (2016) stated that government

involvement to education development within mono towns, including guaranteed placements, social benefits and personal development creates positive trend in social and economical growth. Investment into skills (Soderbaum and Teal, 2010) and technologies ((Dessureault and Scoble, 2013) develops sustainable growth. Investment flow gives reassurance for mining organisations to operate with no shortage of staff; therefore, organisations are able to work on long term goals.

14.3.7 National projects

National support projects are important for the mining industry and essential for mono towns. Any kind of financial, infrastructural, social and educational support allows organisations to develop and expand faster and on a better quality level, as a base for the initial and, most importantly, the set-up will be supported by the government. Project
«Science», for example, was created in 2018 and aims to be completed in 2024. 635 billions rubles have been located throughout the period, which are distributed as grants yearly. The project aims to attract local and international scientists who will be able to bring advanced technologies and knowledge into the organisation or region.
Moreover, the project aims to develop the nation's intellectual potential, identify and develop talents, create conditions for the professional development of scientific and engineering professions, support scientific research and development, and develop scientific infrastructure. This is highly important for any mining organisation that is looking to advance production and gain competitiveness. The ability to use resources such as intellectual nation automatically gives any mining organisation an advantage over their competitors and minimises errors. This leads to reduced time finding mining sites with less extracted waste, and more quality mines.

This also allows implementation of technological set-up for production, rather than old-fashioned machinery.

14.3.8 Advanced production, technologies and investments conclusion

Advanced production and technological development increase firms' monopolistic power and, therefore, create a pattern to influence the financial side of the decisions to set prices in the market.

Moreover, education for employees in monotowns played an important role as part of social, economic development and increased the power of the firm. This works in favour of the government, as a better educated and more socially stable population of the region develops the economy. Highly educated employees at the mining organisation are better at using machinery and it can be used as a method of advanced production. Advanced technologies can deliver better results in a shorter time, and it can boost the revenue of the organisation.

Advanced production can also create better goods, which will make an organisation stand out compared to other players in the region. However, this leads to another point that is not covered by the literature. Advanced technologies are expensive for an organisation, it takes time and a lot of resources to be able to develop such technologies. The government, in this case, can offer support to the mining organisation in the form of loans or grads, which creates a bilateral relationship. At the same time, the organisation can seek financial support from investors, and in this case, the government can benefit from financial flow to the region, but at the same time, the government is to consider the fact that less of the population will be required to work in the industry. Replacement of humans in advantage to machinery increases the output of the production, but can the industry survive without human involvement? Literature once again does not give the specific answer to this question therefore primary data is essential in this case.

15. Primary results

As it was previously explained in section 9 of this thesis - Methodology, research focuses on two types of data collection: secondary and primary. Literature review chapters explain the main theories related to the research questions, such as bilateral monopoly in the mining industry. The researcher conducted secondary data for this research in order to justify the literature. However, primary data is highly important for the analysis, as it helps to test the hypothesis and answer the research question. During the analysis of the secondary data, the researcher identified that much-needed answers to the research problem were not fulfilled, and, therefore, needed to be critically analysed in depth. In this case, interviews (Appendix 1 and Appendix 2) were conducted with the industry-related people. After conducting the first interviews with three different mining organisations, the initial analysis of the data was produced by the researcher. However, during the analysis, it was identified that follow-up questions must be asked in order to test the hypothesis and give the answer to the gap in the literature.

The main question of the research is: ***How the pricing decisions in the mining industry are developed under bilateral monopoly conditions?***

At the same time main hypothesis of the research is:

«How mechanism of strategical pricing decisions in the mining industry can be developed under the bilateral monopoly conditions».

In order to answer the research question, it is important to remember the main objectives of the research, and in order to test the main hypothesis, it is important to remember that sub-hypothesis are an essential part of the main hypothesis. Splitting it into smaller parts helped the researcher narrow down the interview questions and, therefore, helped to find the answer to the main question of the research. At the same time, interview questions have been grouped according to theory, according to the flow of the literature review in chapter 1 of this thesis and based on findings from secondary data. This grouping method helps to analyse quality data and leads to the answer of the main research question.

The first part of the initial interview identified the main information about the organisation, its main purpose and its type of ownership. It asked questions about main goal or/and strategy of organisation. This information provided the base for future questions and gave a base for the analysis. Moreover, it was important to ask questions such as the location of the manufacture itself and, more importantly, the location of the extraction sites. This helped to confirm the structure of the organisation based on the concept of mono town and its dependence on the main region, which was a fundamental purpose. Answers to such questions also helped to identify the type of competition the organisation has in the region, whenever such an organisation has a competitive advantage in terms of location and resources, and, more importantly, it will identify whenever the organisation is able to achieve monopolistic power to make supreme decisions on price set. Due to the nature and location of chosen organisations, it is important to remember that the most important element of the present market economy is competition (Bure et al., 1991). However, it is vital to remember that economic realities are that competition takes various forms that must be considered (Swan et al., 1974).

15.1 Results

The mining industry is a big segment of the county; it is an industry which employs many people and plays a big contributions role in the economy of the region, country and world. Mining and manufacturing are very important sectors in Russia, and therefore, it is important to understand their power and how such organisations make decisions, furthermore, how such decisions influence the prices and economy. As it was previously explained by such authors as Levitskya et al, (2017); Vetrova et al., 2014 and Maksimova (2015), the mining sector successfully operates in the mono-town structure, therefore for this particular research, a small region was selected where three different size companies have were interviewed in order to make a constructive conclusion for this thesis.

The mining industry includes various of different small sectors (divided by types of mines) of extraction and further production at different stages, and they all operate in a similar way, with some exclusions due to the specifications of mines.
The fundamental purpose of mining organisations and the main goal or strategy is the extraction or/ and further production of the product, which will 'stand out' in the market. Therefore, the organisation gains monopoly power and stays competitive. Competition in the mining industry can be achieved through two different methods: price competition (Marshall, 1890) and non-price competition (Winter, 1993). This is based on the strategy of the organisation, where the main goal is to achieve success through monetary strategy or by creating a unique quality and increasing demand for the product nationally and internationally. Price and output of a goods are determinate by both demand and supply, however it is important to remember that demand for the product decreases with the increase in its price and vice versa. Moreover, it is imports to remember non-price competition factors, which does not limit just by price or/and demand.As it was explained by one of the interviewees, the organisation choose a monetary strategy using the quality of the product for the purpose of profit gaining:' … our main goal for the organisation is to produce a good quality product - bricks (better than our competitors) and get profits, by increasing sales… '
A similar reply was from another interviewee, who stated that the main goal is to gain competitive advantage, which will give the ability to gain monopoly power in the region: '…make money by selling good crushed stones in big amounts, as different businesses buy them, like constructions, roads, agriculture…'

Monopoly, as explained by Sharkey (1982), in this case is objective, a unique natural resource in the region with an average cost of production creates the ability to «play» in/with market. This

reply also relates to the theory of structural monopoly (Gilbert, 2017), where an organisation can be the only supplier with no analogues only if the product/service truly stands out in the market. Another interviewee explained the goal of organisation is expansion, which does confirms theory of Krugman (1979), where competitive advantage can be achieved by international trade: …stay as a leader in the industry and increase sales not only in Russian market, Mid-America and Europe, but also expand sales to China, India and East Asia…

Despite the different approaches for strategies, such organisations have much more in common, and the end goal is to gain comparative advantage using different types of techniques. However, such techniques correlate with each other, and any strategical decision made can influence price change within the region and the country. Such consequences will be laid on the organisation, country, labour and wages and can affect the economy as a whole.

The researcher collected information at this stage to confirm the fact that in this particular region, the mining organisation's goal is to become competitive in the market, which will lead to growth and sustainability. However, this created more questions, mainly about how the strategic goals of mining organisations are controlled, regulated and supported. As it was previously discussed as a part of secondary data analysis, government is a monopolist with solo ownership of bowls. Organisations have been asked if such power of ownership from the Russian government and their ability to give licences to use mines controls the market or if they work toward a common goal. It was confirmed during the second round of interviews that government often, but not always, effectively, uses this instrument of power.

At the same time, due to the competitive nature of the industry, it was important to establish whether the government use instruments to control power in the industry effectively, which creates harmonised relations within. The government has the power to intervene if it finds unfair conditions for local businesses and can take steps to manage control of regional prices to boost the local economy. However, despite the fact that the interviewed organisation confirmed this fact, it was stated that the government, in reality, does not always use such mechanisms correctly, and the support provided is not effective.

Government policies for single-industry towns are important due to their significance for the micro-system. Government support is essential in the case of the mining industry, and further questions have been asked during both interview rounds. The main question to ask was:

How and to what extent does the government support or restrict price strategy for products and salary?

It was explained by the interviewee that local government decisions on prices set in nature are often advisory or prices are set by agreement with government bodies. Strict rules can be set for energy and natural resources. However, such a regulatory mechanism is not effective.

When we talk about government, one of the aspects that is considered is tax policies and how this influences or supports the mining industry. Tax burden always seriously affects the state and development of the organisation. Therefore, it was established during the interview that the organisation is always trying to make the most of tax incentives or use tax exemption mechanisms by participating in significant regional projects or becoming a resident of special economic zones with tax exemption facilities.

It was established earlier that tax relief and special tax rates indeed can support organisations and help them to innovate. Tax exclusion gives the opportunity to invest more into research and skills at the beginning, which eventually will provide mining organisation with competitive product or service and, therefore with increase demand for the supply given. Such demand, therefore, will determine prices and wages, which is the reason for the stronger development of the micro system. However, to what extend and how this affecting regional organisation? It was said by the interviewee that tax incentives helps organisation to be stronger and it does help to gain competitiveness through allocation of funds into production innovations instead. This comes to the question, to what extent does the government have a direct interest in working with mining organisations, and will it create healthy competition in the region? It was established by the interviewee that the government is extremely interested in close cooperation with mining organisations. However, it was also said that larger mining organisations often join forces in order to monopolise the market and dictate their terms. This results into changes in price to their favour, however federal antimonopoly services can be used as an influence to control this behaviour.

Any financial support from the government contributes toward the development of production and leads to an increase in the price of the final product. However, does this support organisations help to become more competitive, or does it push the organisations to compete on a higher level? It was established that it purely depends on the current situation. Interviewee said that if a mining organisation is having financial difficulties and, due to its nature of being a major part of a town formation organisation, this does not increase competitiveness. At the same time, if an organisation participates in federal programs for the development of an innovative product, competitiveness will increase. This gives an answer to the research question, where bilateral relations are important if both parties working towards one goal.

It was also discussed earlier that innovations are important for mining organisation. Innovations played a major role in the mining sector, creating a possibility for future growth and gaining competitive advantage. Investments into skills and technologies include cost efficiency, safety and flexibility. Moreover, it creates differentiation from others. Industrial innovation exploits one new feature: for innovation to be successful and profitable, it must be strategic. Strategic innovation means that a new process (product/technology) should not be one-time but will be used in the future. Moreover, in order to stay competitive and profitable, organisations can create their own rules of monopoly by using various tools (Casson, 1985). The power of innovation and advanced technologies is strategically wise; however, decisions require a lot of investment. It was discussed by various authors including Cagliano & Spina (2000); Wang & Chin (2008) and Lei et al., (1996) that advanced manufacturing is flexible, more efficient and effective. As per interviewees' answers: …I agree that innovation is very important for our organisation. We have modern machinery to make extraction easy and well organised new machinery to produce product. This helps us to produce more in a shorter time without losing quality… As said, advanced production leads to the ability to gain a competitive advantage. Such power of advantage directly correlates with the ability to set monopoly prices; however, it does add competitive pressure between government and industry. This comes to the question of whether an organisation is able to make its own decisions. It was confirmed by the interviewee that the government nowadays is increasingly involved in solving issues related to single-industry towns; therefore, the independence of organisations in making serious decisions in such a structure is significantly limited.

Furthermore, investments in technologies and machinery allow organisations to advance their extraction and production methods and automate production. This could lead to a future displacement of the human labour. The interviewee agreed with the statement. However, it was noted that maintenance and adjustment of automotive lines are impossible without human involvement and even with further development of technologies, it would be impossible to do without people. In addition, it should be noted that innovations in industry are distinguished by the duration of the implementation of the effect. Most often these are large-scale labor-intensive processes that give a financial and economic answer about their profitability after a long time. It was confirmed by all 3 organisations, that new technologies and more advanced production will reduce the production cost in future for company. More energy-efficient technologies reduce the costs of production. However, such innovative products have a higher value on the market, and therefore added value increases the price at the market.

It is also essential to consider social aspects along with innovations. Personal development and a strong education system are essential for monotowns, as this helps the local economy to grow and develop.

Higher standards of living and a more educated community have the ability to attract more valuable skills and experience for mining organisations. With a higher level of education, a higher salary is required. With higher salary, the price of the mine is higher as well at the same time as the quality. This makes organisation competitive. In this case, higher prices can be charged when an organisation has higher production costs and higher wages, which theoretically lowers the competitiveness of profits. However, the role of government, as per the answer of the interviewee, significantly increased in recent years, as the need to maintain social stability in monotowns is essential.

Mono towns, due to their nature, which was discussed above, are dependent on local government. If an organisation is able to use its advanced production and manage its own prices, ideally, there is no need to be dependent. However, in reality it is impossible. Without government support, the maintenance of the social sphere and creation of the necessary microclimate in monotowns is not possible, as well as without support from mining organisations. Interviewee said that it must be a joined effort. Bilateral relations between both once again play a major role in decision-making processes.

Mining organisations with more advanced production methods bears a lower production cost and automatically gain a competitive advantage. This competitive advantage influences the managerial decision on how such organisations set the prices on mines or products. Therefore, they influence the whole mining industry and global market. Due to the fact that mono town structures, in most cases, are located far away from big cities, it is essential to use resources to create comfortable conditions for the education and development of local people. The bilateral relationships between employees and mining organisations create a unique relationship that can only be beneficial. Training and development can be implemented in organisations strategically, and investing in the education of young professionals will create future growth and development of the organisation by the use of the skills gained. This will also create an advantage over competitors, as more skilled workers can use more advance technologies.

As it was explained earlier in the chapter, unique production automatically adding competitive advantage to the organisation and it is directly correlates with education and development. Higher investments into the education of employees mean higher production outcomes and, therefore, increased ability to supply more efficiently. Higher supply at the same time matches the demand for more advanced products/services offered in the industry, and this directly influences pricing decisions. The government offers various support, including innovations, education and infrastructure for the mining industry and offers support for the local communities in mono towns. Although it does give benefits for an organisation, it was established that the government has moved interest in maintaining the stability of mono towns rather than mining organisations.

However, theory suggests that there are some difficulties and disadvantages to the mono-town structure. For example, lack of industry diversification, the social and economic vulnerability of the population due to narrow specialisation, the threat of long-term unemployment due to an imbalance between supply and demand for labour, and outflow of the economically active population due to low wages. This led the researcher to investigate further and find if it is important for mining organisations to employ highly qualified specialists. It was stated that growing competition in the industry and the introduction of new innovative technologies increase demand for new employees. Moreover, key positions in production are impossible without highly qualified specialists. As was established earlier, highly qualified specialists have the ability to receive a better quality of education and demand higher salaries. Furthermore, organisations, from their side, can create favourable conditions for their employees. Mutual agreements with the government in order to support employees and their families in various possible ways is another bilateral relations example that must be taken into consideration. This includes housing and special mortgage terms, education and government discounts and re-payments. This was justified by the interviewees, that government support for free education with future employment can keep the flow of employees for organisations. The importance of the strategic approach towards education and development within mono towns, which can include guarantees of placement and social benefits, positively affects personal development, which can create a lot of opportunities for mining organisations.

As it was discussed before in this thesis, prices in mining tend to rise and fall cyclically alongside world trends; however, the manufacturing prices depend on other variables as well (Bloch, 1987). Such variables include unionisation, which can be considered as a method of the possible sustainable effect (Brown and Medoff, 1978). Unionisation leads to the long-run perspectives, including productivity growth and the ability to gain competitiveness. Moreover, when unions have an option to defend their rights individually, then they will be able to defend their rights collectively, which means they will be able to act in solidarity and therefore influence wage rate. However, with such an option to influence, the theory of union power and salary determination needs to be tested. Bryson & Dale-Olsen (2020) explained that sometimes local unions are more conducive towards product/technological part of the product innovations rather than competitive wages. Therefore, local bargaining's main focus is the innovation side of the theory. It was previously discussed in this thesis that the power of monopolist employers of labour always opposes the union and has an opportunity to influence wage rate through employment changes. Such an employer seeks to set his wage rate at the competitive level, the same as a union, which sets its own rate, which is normally higher. Strategically, in the case of mono towns, somewhere in between, the rate should be matched. The question is, what is the rate, and what makes it an 'in-between rate'? One of the interviewees agrees with the statement that unionisation does have

the power to determine the rate of wage; specific education requires higher wages in general, but this cannot be offered to seasonal workers. Therefore, it leads to the conclusion that negotiation between mining organisations and unions develops mutual agreement for the development of the region and industry and balances out the price on a specific time frame set.

Results conclusion:

It can be concluded that systematic dialogues between employees, management teams, investors, government and other related stakeholders lead to constructive strategic decisions, which positively influence people, organisations the mining industry and the region overall. Bilateral relations and good cooperation between

organisation and government create a unique monopolistic power that could influence the pricing decision at all levels of operation. Moreover, it could be concluded that competitive advantage is indeed gained under the bilateral monopoly conditions. This leads to the conclusive statement:

Competitive advantage can be gained by investment and implementation of advanced technologies in the mining industry under the conditions of bilateral monopoly.

16. Conclusion

The final part of the research is the conclusion of all the theories used and analysed, secondary/ primary data findings and their analysis. At the beginning of this paper, the researcher set objectives for the research in order to answer the research question. The research question was: ***How the pricing decisions in the mining industry are developed under a bilateral monopoly conditions?***

In order to find the answer to this question, it was important to identify the theoretical foundations behind the decision-making process in mining organisations and analyse theories of monopoly and competition.

Competition theory has been explained in the past by major economists such as Adam Smith & Porter, and types of competition depend on the nature of the business (Pisano, 2017). According to Smith, organisations tend to get as much profit as possible at a low price, where the optimal distribution of labour and market are in place. What is important about the competition theory is that in most cases, there is a standard way to compete in the industry. At the same time, Hunt (2000)

explained that competition is the relation between different people who are trying to achieve the same goal. Literature showed two ways of competition (price and non price). The top question with this theory is how this could be applied and used in real-world situations, how theory varies between industries and countries, and, more importantly, how this could solve the research question. Based on the competition theory is mostly focused on profits and developing ways to increase income. Marshall (1890) explained that price is the important utility between supply and demand, and Winter (1993) argued that customer service is also very important. Moreover, Schumpeter (1942) suggested that assets and fortune are factors that make an impact on organisations in the competitive market. This raised the question of how exactly organisations need to compete in order to satisfy the needs of the organisation and the economy.

Furthermore, Evans and Hylton (2008) developed the idea that price competition is a risky investment in the future, but it provides significant rewards after all. Moreover, Bettoletti and Etro (2016) confirmed that the higher the price, the more dominant position the company takes in the market. From the above, it could be stated that price is the only matter, and the higher the price, the more the company is competitive; however, at the same time, people and customer service are also important factors. At contrast, Krugman (1979) stated that geographical region means a lot for the organisation and that competitive advantage can be achieved by international trade. Mining organisations need either to keep the balance between price and non-price competition or choose the strategies which will complement both the firm and society. Although the literature confirms that both above methods will benefit the organisation, every case is individual and decisions upon competition are subject to change due to various variables in the economy.

Mining organisations are monopolistic (Casson,1985) due to the nature of the business. Gilberg (2017) explained the monopoly as the only organisation in the market, and Zeuther (1930) expanded the explanation by providing the theory where customers have no choice and no product differentiation is offered in the market.

Haiser (1970) explained the fact that a strong labour market equals a bilateral monopoly. This was also confirmed by Kalinowsky (2015), who suggested that trade unions are monopoly. Moreover, Lewis and Lindsley (1986) developed the idea that both the resource market and customer goods market are bilateral monopolies. This involves both trade union & labour market and manufacturing, resource market & manufacture and government involvement at all stages. Collective work creates good value for both parties and develops an atmosphere of business relationships. In theory the above works perfectly, each monopolistic party help each other and business runs smoothly. However, at all stages, negotiation must be in place, as the main influence factor is price. In order to find the balance, the theory of Luttrell & Noble (2017) and Karenov et al. (2016) suggests creating

friendly relationships, sharing information and setting prices, which will positively affect both. According to this, in the ideal situation, it is difficult to gain profits or even expand the production cycle.

Moreover, even if the theory suggests that the mining industry is a monopoly and barriers to entering the industry are very high, bilateral relations still take place, and more people getting involved in the industry. Therefore, the idea of Morita (2018) develops the intermediate benefit for other companies, and the necessity of it plays a major role in the development.

The researcher established that Russia has characteristics of the industrial and developed nations with great mining sector potential. Russian economy and development of the country partly depend on the mining industry. Dorian & Humphreys (1994) and Daisy & Das (2014) confirmed the significant dependence between the natural resources of the country and the development of the economy. Russia, according to RosStat (2017), has a geographical advantage and, therefore, is able to gain a competitive advantage over other countries at the beginning. In order to narrow down research, the Ulyanovsk region was selected. Geographical location, industry-specific and naturally rich in various natural resources - all were the essential requirement for this research. Therefore, the second objective of linking the theory of bilateral monopoly and secondary data in order to identify a gap in the literature was produced.

Moreover, based on the literature reviewed, mining sector employs millions of people all around the world, and it was important to investigate this matter from different angles. Based on the research of Hitomi (2017); Cagliano & Spina (2000); Wang & Chin (2008) and Neumann et al., (2002) it can be suggested that mining organisation with a more advanced production method bears a lower production cost and automatically gains competitive advantage. This competitive advantage influences the managerial decision on how such organisations set the prices on mines or products. Therefore, they influence the whole mining industry and market. Moreover, this advantage over competitors also sets the price for labour and influences the economy of the region/country.

Following the bilateral monopoly part of the research, the author suggested mono towns are the proposed structures for the bilateral relationships. Vetrova et al., (2014); Shastitko & Fatikhova (2015); Levitskay et al., (2017); Ivanova et al., (2017); Khanna (2013) and Chakraborty (2014) identified the importance of such structure for the industry and for the country. Such structure creates opportunities for mining organisations to operate on a profitable level and make powerful managerial decisions from all sides, including financial, social and economic. In contrast, Kirsanova & Lenkovets (2014); Lizunkov et al. (2019) discussed the potential problems of social development, and therefore, Tyulicheva (2017) and Malushko et al. (2016) explained the importance of education and social development with the structure of mono towns. Moreover, Das (2005) suggested that efficient government policies are a potentially key to the success of cluster operations. Innovation and

technology depend on both organisations and government; therefore, Venkataramanaiah and Parashar (2007) agreed on the successful power use by the government for competitiveness in the bilateral partnership operations. The third objective of the research was split into 2 categories:

- to identify the efficiency of operations of mono town structure and how this influences development of mining organisation
- to identify the importance of innovation and development of technological and human assets

Researcher developed the link between bilateral monopoly and mono towns. Competitive advantage is the main goal/objective/motivation or even a successful strategy for both. In order to understand the basics researcher suggested the bargaining theory, which was explained by Dabholkar et al., (1994). Moreover, different aspects of successful bargaining relationships have been explained by Kong et al., (2017); Compagna et al., (2016); Brett et al., (2011); and Naquin & Paulson (2003) and Schweitzer et al., (2006) and all above authors agreed on the ability to negotiate to gain the advantage over competitors. Negotiation at this level provides to organisations the ability to get the best conditions or even price for their services, their goods and value for the business. Furthermore, bargaining power positively affects the organisation's performance and helps to develop technological aspects of the business. Conroy (1975); Redd & Luffman (1986); Kryukova et al. (2014) and Yakushnina (2019) highlighted the importance of diversification as the economic structure of the region and one of the fundamental principles for the local population and employment.

Another point the researcher has mentioned is the importance of investments in the industry. Investments and FDI, according to Sawyer (2002), Denisia (2010) and Dunning & Rugman (2002), play an important role in the international economy. Talking more specifically about the mining sector Soderbaum & Teal (2010); Dessureault & Scoble (2013); Hilson (2000) and Borensztein et al., (1998) explained the high importance of investment into technology, as it closely linked to the development of the economy, and therefore the ability to gain competitive advantage. Mining industry attracts investments really well, however, the managerial decisions is highly important at this stage. Level of the investments will this lead to a massive structural changes or even will affect the price for labour or materials. Despite the fact, that the opportunity of gaining more funds is a great deal for small, medium or even large size organisation, it might lead to a massive internal/ external changes.

The fourth objective of the research was to closely investigate the decision-making process under the bilateral monopoly in the mining industry using the case of a specific country and region

and what influences this process. Zeuthen (1930), Hall (2015), Sumner (1992), and Fassnacht (2018) explained that pricing decision methods depend on the market structure; there is no unique or strict approach to it. Moreover, such decisions have long-term consequences for the organisations or governments and all their stockholders. Furthermore, Ingene (2007); and Tashakkor et al., (2018) highlighted the importance of 'information on hand' and that the decision is based on it. However, in order to make the right pricing decision with the specific information within the industry, many variables must be considered. Such variables, according to Rahmanpour & Osanloo (2016), Machlup& Taber (1960), Chalos & Haka (1990) and Haque & Topal (2016), include price of the row materials, production price, labour price, economic costs, taxes and many more. It is also noted by Shmeleva & Eliseeva (2016) that the contract obligations must be considered. Moreover, Alfano et al. (2018) highlighted the importance of moral obligations. According to the current literature, there is no universal solution to the problem of the winning strategy for the decision-making process on the bilateral relationships in a monopoly market, and this must be investigated, and possible solutions can be suggested. At present, as discussed previously, the decision-making process within the mining industry is based on competition, where the main role places price factors. This includes price of the product, distribution and customer service price. Begin and Summer (1992) explained the fact that price decisions by management depend on the financial and economic activity of the region and country. Moreover Simon (2018) confirmed that those decisions brings long term consequences for all parties.

Since literature does not give a direct answer, in order to try and find a universal or signal solution to the research problem, researchers conducted secondary and primary research, Theory and literature have been tested and applied to real organisations to justify theory and find answers to the research problem. Two sets of interviews were conducted with Russian mining organisations in a specific region, where three companies of different sizes were selected in order to find the answer. It was important to identify and analyse different factors and what exactly influences mining organisations in terms of the decision-making process in pricing. It was concluded that various of factors influence the decision, which depends on the strategy of the organisation. It was also concluded that conditions of bilateral monopoly create a mechanism of the strategical decision making, and this influences the industry. Each organisation has their own strategical ways of making a decision, however after careful analysis of the data it could be stated that such decisions work strategically better when cooperation is in place.

Therefore, the researcher can conclude that a universal answer to the research question was not found. However, it can be concluded that the mechanism of the strategical pricing process within the mining industry is successfully developing under the bilateral monopoly conditions.

17. Limitations

Limitations are the logical part of every research, and this particular case is not an exemption. All the suggestions that have been made during the research are based on the previous theoretical analysis, data that was collected and analysed, which used to be a trend in the past. Primary research was the essential part of answering the research question; however, the gained information cannot be the same over a certain period of time. It is also important to mention that result interpretation can vary based on the specifics of the data researched. Results can and will be used as a

reference; however, at the time of future research, they may no longer be relevant. Another limitation to consider is the small number of participants for the interviews, which could be a limitation for data interpretation. Furthermore, part of the interview was conducted in Russian; translation and interpretation of the results could also be limited due to language and cultural differences.

It is also important to mention that due to the current war between Ukraine and Russia, instability and limitation of some resources may affect interpretation of the results in future.

Appendix 1 - Interview questions

Part 1 - general questions

General Information about the organisation/theory questions

1. What is the fundamental purpose of the organisation? How many people employed by the organisation?
2. What about the ownership of the organisation? Is it a privately owned or government owned?

3. What is considered to be the main goal/strategy of organisation?

4. Is the manufacture located nearby the extraction site and why?

5. Theory suggests, that structure such as mono towns tend to be most common and very effective for the mining industry, when mining sites and manufacture located nearby or in suburb of the town. Would you agreed to this statement and why?

6. How many employees are locals and live nearby the site?

Part 2 - this part of the interview will specifically discuss the organisation and what influence the decisions on certain aspects

7. Innovations are highly important for the development of mining organisation. Does company implementing innovations to the extraction and further production?

8. In your opinion more advanced production will reduce the production cost in a long run?

9. Personal development of the employees positively influence the production and therefore reduces the cost in a long run. Does organisation believes that investing into development of the employees is important? If so, in which way this develops/helps the organisation?

10. Unions are important for mono town structure in mining, as this helps to manage wellbeing and self development of employees. Do employees are part of the union? If so, how this affects the organisation?

11. Investment into education of the community in mono towns is important, as technologies are moving forward all the time, especially in the production process. Do you believe that such investment influence the future structure of the organisation?

12. Government support is essential, therefore Ministry of Mining always working on developing new strategies on support of mining organisations and employees. As per government support for mining organisation, do you believe such support helps to advance the production? Does this creates more or less jobs available in the industry?

13. Do you believe government can do more in order to support organisation? Is so, what will be the proposition?

14. Average salary in Russia for such type of organisation for the mining engineer varies between (40-69k rubles) per month and average for labour worker varies between 15-24 k per month, depending on the region and size of the organisation, do you believe this is an acceptable average?

15. Does the organisation make the decision on the salary based on the average in the region or this depends on other factors as well?

16. To what extend advance production method of final product influence the price and how, in your opinion, this influence the price in the region? Do you believe anything else influence the price?

17. Do you believe this decision will influence the market within the region? Price wise and salary wise?

18. Investments are important part of the development of the organisation and it helps to support further improvements of the organisation. For the last few years positive trend of investment helps

mining industry to grow and develop. Do you have investment flow to the organisation from one or several sources? if so, do you believe it helps and in what exact way to develop the organisation?

19. Do you believe relations between employees and organisation supports the mechanism on decision making for the strategy of the organisation?

Follow up Questions:

Follow up question 1: We talked about advantages of the mono town structure and the ability to employ local people. However there must be disadvantages of such structure. What would you consider as a disadvantages/challenge?

Follow up question 2: Do you believe that unionisation and its power determinate the rate of wages, especially taking in consideration higher or more specialised education level?

Appendix 2 - Second round of interviews

1. Does government ability to grant licences to use mines for organisations is the power they hold to control market or they working towards common goal to keep economy and market stable?

2. Mining industry as per literature review is a monopolistic industry, however to ensure fair trade, it is controlled by government. Bigger and more stably established organisations have more opportunities to develop and invest into technology and social economical environment. Moreover, dominant organisation in the industry have ability to set prices on specific mines, they have availability to offer higher salary and more benefits and smaller companies stand a chance of success in this case, as they are not able to compete equally.

How does this affect your competitiveness? How do you address the situation?

3. Government does have a power to intervene if it finds unfair conditions for local businesses, or take steps to manage control of the regional prices for the mining industry to boost local economy for their own benefits. Do you agree or disagree with this statement? Do you believe government helps mining organisations to compete equally in the region?

4. When it comes to the decision of setting price for the product, does government regulations and legislations actually support development or not? If we talking about salary rate for employees, does government regulations on minimum required salary for the industry support such development or not? To what extend are government resources available to the organisation? How effective government support when organisation making changes to the product price or salary rate? Does organisation makes a decision on what salary to set independently or organisation feels pressure from the government to match it?

5. Does innovation development support from government and tax reliefs gives organisation an ability to be more powerful and to be a decision makers in the regional industry? Does organisation able to function without major support from the government by only using own resources? If yes, do you believe that government support laws and regulations are insufficient?

6. Power of competition comes with ability to charge monopoly price, but does add competitive pressure between government and industry players. Does this allow or restricts organisation to make decision independently and prevent displacement of people in mono towns?

7. How does tax regulations from the government affect your organisation? To what extend "tax relief or exemption" align with company's objectives and how this influence output volume?

8. Do you believe that government have a direct interest to work with mining organisation for the purpose of developing community and creation of healthy competition in the region? In case if mining organisation has an agreement with another organisation, do you believe this will create competition power and this will allow mining organisations to change price of the product or salary rate despite government decision?

9. How are tax privileges used by an organisation and does this creates favourable climate for growth?

10. Investment into technology, such as machinery and equipment allows organisation to advance their extraction and production methods, which gives ability to automate production with minimal human involvement. Does this lead organisation to displace people with machinery in future? Financial support from government helps to advance production and it leads to a price increase of the final product. In this case does this support organisation to become more competitive or forces organisation to compete on local and international level? Power of competition comes with ability to charge monopoly price, but does add competitive pressure. Does this mean that organisation can make decision independently and prevent displacement in mono towns?

11. Higher prices can be charged when organisation has higher production cost and higher wages, which theoretically lowers competitiveness of profits. Do you believe that organisation is able to charge higher price with no decrease in demand? Or this would not be a possibility in the region? Do you believe government can influence price change and push organisation to do the same?

12. Mono towns known to be co-dependant from the local government. Does organisation able to create their own micro climate without support of the government and it is a government who is not able to function without mining organisation?Government offers various of support including innovations, education and infrastructure for mining industry and offers support for local community

in mono towns. Does this benefits organisation and gives more power to make price decisions? Or is it organisation, who contributes towards development of infrastructure and local community and therefore economy is rising? or is it cooperation between both? or government create favourable conditions to support it own needs via help of mining industry?

13. Government support with creation of industrial parks does create accessibility for investors, which are important for mining industry development. How important are international investors to an organisation and does it comes with support of the government or its own search of the organisation?

14. How important is highly educated community for an organisation, taking in consideration, that major part of mining industry is manual labour and specific qualifications are requirement. How organisation approaching this situation when advanced production implementations are in place?

15. How essential are highly qualified specialist for an organisation? or what is it a bare minimum organisation require for a normal functionality?

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