

The effect of corruption on the innovation process in Russia

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Abstract

This research aim is to study the effect of corruption in Russia on the process of innovations implementation. The interviews of 10 managers from telecom industry were conducted in order to study this effect. It was determined that in order to understand what effect corruption has on the implementation of innovations, it is necessary to unravel the following: what are the main problems faced by companies that choose to innovate, what stages of the innovation process are the most susceptible to corruption and whether corruption can sand or grease the wheel of innovations development. The research results show that corruption is among the main problems faced by innovative companies. It was found that corruption can influence all stages of the innovations implementation, however, the implementation phase is most affected. Interestingly, the most challenging finding is that none of the respondents see corruption as only a threat or an opportunity but somewhere in-between.

Keywords: Corruption, Innovations Development, Sand the Wheel Perspective, Grease the Wheel Perspective, Phases of Innovations Development

Introduction

Market competition forces companies to develop and improve in order to maintain a competitive advantages among other firms in the market than they used to in the past. Innovative development in this case is extremely relevant to the companies of all sizes and specifics. Global trends in breakthrough technologies, digitalization and the acceleration of product lifecycle lead to the radical changes in most of the industries. Changes in global supply chains, profitability areas and technologies availability influence the distribution of market share in different economic areas. What is more, it is significantly increasing the implementation of new ideas and developments. Only 9% of the top-500 American corporations in 1997 were accounted as high technology companies and this amount increased up to 17% in 2017 (Aptekman, 2017). Such transformations happen worldwide. The use of innovations is becoming a mandatory condition for companies willing to receive competitive advantages in the market. Gaining such advantages requires complex approach in innovations implementation. Previously it was common for companies to develop innovative approach based on either quality, price or service to become successful. These days it is mandatory to fulfill all sorts of innovations at the same time (Goroshko & Poklonova, 2016). Innovations can benefit business not only in growth rates, leadership and comparative advantages but also contributes to protection from radical innovations. Radical innovations can promote the growth of completely new markets making some existing industries economically meaningless (Stinger, 2000).

In the Russian economy, there are many examples of industries that could be beneficial from the point of innovations - gas and oil, energy and metallurgy industries may easily become the leaders in implementing breakthrough innovations (Perrons, 2014). However, new technologies and products are developed so fast that such implementation will require changes in financial resources

and management capabilities. On top of that the role of governmental institutions are extremely important. Despite the fact that innovations can be seen as the driver factor of the economic growth, not many companies in Russia choose to innovate (The World Bank group, 2018). The actual level of innovation activity in Russia decreased from 17.8% in 2017 to 15.1% in 2019 (Bateneva, 2020).

Active participation of the government can considerably increase the speed of implementing innovations. Government responsibilities in innovation nowadays are highly complex. Government can highlight priority directions, detect industry's weak points, market niches that are perspective for development and provide them with significant legal and financial support (Feldman, 2014). It is of high importance to identify what hinders the process of innovation and actively work on the elimination of these barriers. Many scholars agree that the role of government as a regulator of the innovation process is very important (Feldman, 2004; Khan, 2006; Lerner, 2020). Under the governmental supervision platforms for cooperation and dialogue of large businesses from various industries can be organized, for science and start-ups to generate new ideas and complex-problem solving. This will allow to promote the right direction of innovation and entrepreneurial activities. Spreading out success stories of Russian companies among scientists and entrepreneurs could help in popularizing innovation activities. On top of that Russian state is the main shareholder in almost 45% of the largest companies (Puchkarev, 2018), so it can actively stimulate its innovation development through for example corporate governance.

On the other hand, all of the mentioned benefits could be easily interpreted as weaknesses. Schulze and Zakharov (2018) argue that corruption in Russia has a systematic historical nature back from the times of Mongolian empire. What is more, they say that low wage levels of state employees is strongly correlated with corruption levels. Guriev (2004) argues that bureaucracy at the government level is highly correlated with the level of corruption. He points out that the

bureaucrats in favor of their own interests increase the red tape rates above the level that could be socially accepted which leads to bribes being paid in order to overcome bureaucracy-related obstacles.

The success of an innovation provides an opportunity for entrepreneurial profit. Innovation is part of a complex value chain and involves a high degree of uncertainty. Uncertainty is manifested in the ability of the innovator to appropriate most of the created profit, and therefore is in a rather strong dependence on the institutional condition in the state (Dmitrieva, Volkov, Titaev and Paneyakh, 2011). Some scholars consider the combination of low-quality management and corruption to be the core problem but make attempts to seek for positive aspects of corruption (Leff, 1964; Egger and Winner, 2005; Mendez and Sepulveda, 2006). In contrast to that, some authors do not agree to confirm the usefulness of corruption under any circumstances (Moon and Sekkat, 2005; Anokhin and Schulze, 2009; Aidt, 2009). However, due to corruption illegality and secrecy, it cannot be measured directly. Satarov and Parkhomenko (2001) argue that in order to conduct a sufficiently reliable research in this area, it is necessary to study the real facts that are reported by company managers.

This thesis will examine Russian and foreign companies from the telecom sector and how they are affected by corruption while implementing innovations. Currently, telecom companies are forced to be actively participating in innovative activities. Telecommunications market is oversaturated, high competition leads to lower profits and managers are forced to look for effective strategies that will allow them to enter new markets, offer innovative products and services (PwC, 2019). Active deployment of new generation 5G networks opens up tremendous opportunities for building new services and technologies. 79% of CEOs are confident that the development of new data exchange standards will have a significant impact on business development opportunities (Accenture, 2020).

1.1 Problem statement

Although Russian market has a high potential for innovations and it is always underlined at the highest government level (Rozhkov and Tishina, 2017), the current state of innovation activities is unclear. Previous studies in that field contributed mainly to the isolated cases of the impact of corruption on innovation (Guriev, 2004; Weill, 2011; Schulze et al, 2018; Guriev et al, 2019). However, we can see that the effect of corruption on innovation is far more complex and we see only the upper part of the iceberg. Ermolova (2015) argues that corruption has a significant impact on firm's decision to innovate, however, in combination with other factors (such as infrastructure, taxes, regulatory quality, market competition, etc.) the effect becomes much more perceptible. In other words, complex problems manifest themselves much more vividly. Research in terms of studying governmental policies in the sphere of innovation and how it affects corruption levels are limited. Thereby, the key issue to be studied in this research is the relationship between the innovative behavior of firms and corruption, taking into account the aforementioned factors of the state environment in which firms operate.

1.2 Research question and objectives

The research question comes as follows:

How does the corruption in local environment affect the implementation of innovation?

- *What are the main problems that affect innovations development?*
- *How does corruption influence innovation at different phases of innovation process?*
- *Is corruption perceived as a threat or an opportunity by local management?*

The answers to the abovementioned sub-questions will provide the answer to the main research question.

1.3 Theoretical and practical relevance

The problem of corrupted institutions in Russia was historically inside the government and has always affected the businesses (Schulze et al, 2018). Nowadays modern technologies enter all spheres of life and business. This enforces companies worldwide to implement innovations to adopt to fast changing standards. The research should expand the literature in multiple ways. The information in existing literature mainly contributes to isolated corruption issues (e.g. the level of payments to the officials) and does not consider corruption effects on enterprises trying to implement innovations. This research will expand the literature in terms of what corruption issues companies face at each phase of innovation implementation (idea generation, elaboration, championing and implementation) and what is the management perception of corruption. On top of that, this research will cover the overview of the main problems that hinder innovative development in Russia.

Practical relevance will be achieved as well. Russia is indeed a huge market that might be interesting to MNEs to invest in. Moreover, some international telecom companies already operate in Russia and with the results of this thesis the managers can learn how existing companies operate in a turbulent environment. On top of that, Russian telecom companies operating in the market will be represented in this research. It is interesting to understand how the innovation's development in this sphere is susceptible to corruption. This study will be highly relevant to practitioners who consider innovation implementation to their businesses because it will not only review the existing literature but will also focus on practical aspect.

2. Theoretical framework

Corruption is one of the oldest phenomena in social relations as old as the social order that governs the life of people (Satarova, 2004). Naturally, corruption is transforming as the political and economical orders are also becoming more complicated over time.

This part will cover the institutional and historical background of Russia as a part of this thesis. The theoretical framework in this chapter will cover information on corruption and innovations. The subparagraph will explain as follow (2.1) corruption; (2.2) innovation and phases of its implementation; (2.3) theoretical perspectives of the influence of corruption on innovation; (2.4) historical background of corruption in Russia.

2.1 Corruption

What do we exactly mean when speaking about corruption? It is extremely hard to find a definition that would be universal (Philp, 1997). There seems to be no common answer to this question in the literature. Thus, developing the most accurate definition of corruption and conceptualizing it in a unified theoretical model should be the most important task (Farrels, 2005). Almost 50 years ago Peters and Welch (1978), already characterized such problem as complicating research. This in turn led to that corruption has never been studied as a solid theory but normally as fragmented cases.

Corruption is a universal parasite - it can survive in any country at any time and within any form of government. Farrels (2005) defines it as “cross-systemic, cross-temporal and cross-cultural phenomenon” of corruption. Researchers point out that corruption itself is as old as the society itself (Klitgaard, 1988). There is some written evidence of corruption from ancient India, it was

often met in Rome and Greece. Corruption as such has always existed. It has changed over time, adapting to historical, political and social realities, which contributed to its spread. History knows examples of corruption in authoritative regimes (e.g. Chile, Russia, etc.) as well as in democratic ones (e.g. USA). All of the above shows that corruption is a phenomenon that can exist anywhere in no means of time or political regime, basically, it could be found in all societies that are developed to a certain level of complexity (Fleck and Kuzmics, 1985).

The complexity of corruption as a phenomenon leads to a controversy in defining it (Luna-Pla and Nicolás-Carlock, 2020). Classic or public-office-centered definitions are mainly used nowadays by the researchers (Jain, 2001). Treisman (2000, p.399) offers the most commonly used definition:

Corruption is the misuse of public office for private gain

Therefore, to interpret classic definition of corruption it is needed to understand what is meant behind the word “office”. It basically stands for the position of trust when a person receives the right to act on behalf of an institution or an organization with the authority to make decisions. The key for understanding here is the “authority to make decisions” that is the baseline for corrupt activities.

Even though, the growing rates of corruption raised interest in research on corruption there is still no clear-cut definition for corruption (Svensson, 2005). Due to the complexity of the phenomenon it is extremely hard to define or measure it. Klitgard (2002) argues that there are a few reasons that points out to the difficulty of defining corruption. First of all, corruption will vary between regions depending on cultural and economic context. For example, gifts for the officials is the common practice in Asia but inappropriate behavior in Europe. On top of that, Gallup Hungary (1999) states that cultural features and socially active groups are the main drivers of corruption. Secondly,

moral characteristics must not be considered when judging corrupt behavior. This is because we have to distinguish the actions that are morally wrong but not corrupt from those that are corrupt but morally correct. Finally, some actions are in a gray area in which it is rather difficult to determine the motives and whether it involves corruption component.

In the modern world, corruption is a serious and pressing problem for almost all states. The preamble to the UN Convention against Corruption (2004) notes that the seriousness of the problems and threats posed by corruption to the stability and security of society, which undermines democratic institutions and values, ethical values and justice, and damages sustainable development and the rule of law. It as well mentions that corruption no longer represents a local problem but has become a transnational phenomenon that affects society and the economy of all countries. Today, the problem of corruption, suppression of its various manifestations and counteraction to its spread, the development and practical implementation of an effective anti-corruption policy is extremely acute and vital for the emerging economies at large and Russia specifically (Fadeichev, 2016).

2.2 Innovations

In analogy with corruption, innovation is also as old as mankind. Obviously, humans have always been thinking of inventing and adopting better ways of living, doing businesses, changing environments (Edgerton, 2010). Our ancestors, long before the formation of a civilized society, were engaged in innovations, which today we call basic. Basic innovations made it possible to radically change the economic and social aspects of society, change the course of history (Mashevskaya, 2017). Innovations have been used by society for a long time and everywhere. Depending on the historical era and the level of economic development of society, this category

bore different names, but in terms of its semantic content it remained unchanged. As history shows, the practice of implementing innovations has existed for a long time, however, innovations became the subject of a separate study only at the beginning of the last century, thanks to the research of J. Schumpeter.

As studies of economists show, innovation today is among the main sources of economic growth and one of the most important factors in the competitiveness of any organizations, regions and national economies (Mahemba and Bruin, 2003; Sinidas, 2004; Junmittag, 2004; Robson, Haugh and Obeng, 2009; Saka-Helmhout, Chappin and Vermeulen, 2020). The innovation as a term is widely used in all spheres: TV, news, videos, governments and companies. So what exactly does it mean and why is it so important?

In general terms, business management literature imply innovation as a new or significantly improved product or service introduced to the market or improved process launched within a company (Garcia and Calantone, 2002). However, OECD (2005) definition seems to be the most suitable to this thesis:

An innovation is the implementation of a new or significantly improved product (good or service), or process, a new marketing method, or a new organizational method in business practices, workplace organization or external relations.

This definition is useful as it highlights three important attributes of innovative process. Firstly, this definition emphasizes that innovation is not only part of the process of technological development, such as an invention, but also the process of bringing that invention into the market. Marketing included to stress that adoption of the invention to the market is needed. Secondly, the innovation process does not necessarily take place only in a single company, so linking innovations

with other companies and institutions is very important. Finally, OECD definition also includes innovation in services, so it assumes the importance of innovations in less R&D incentive industries.

2.2.1 Types of innovation

Various attempts have been taken in order to classify innovations (Garcia and Calantone, 2002). Regarding a few literature reviews (Fagerberg, 2006; Garcia and Calantone, 2002) we can distinguish the wide use of six types of innovations: disruptive, discontinuous, incremental, really new, imitative and radical. All of those are as well a part of business vocabulary. Regarding its simplicity, common use and applicability in both academia and in business, all of the mentioned innovation types can be split into 2 groups. The first group is considered to create a leap in introduction of a new technology or service. Group 1 includes disruptive, radical, really new and discontinuous innovations. Such innovations are not typical for emerging economies and hence are not expected to be studied in this research. Incremental and imitative innovations form the group 2. The second group does not necessarily make such a right away jump as group 1 innovations. From this point we are switching to the group 2, the innovations that are not considered radically new but rather as general improvements.

Incremental innovations. Innovations to existing product and/or at existing market that add extra features or benefits to the product. Improving, adapting and refreshing the existing product or service is said to be the nature of incremental innovations (Song and Montoya-Weiss, 1998).

Imitative innovations. This type of innovations implies that competitors can also choose and use the innovation introduced by other actors in the market. These innovations can create directions and highlight the trends on the market (Garcia and Calantone, 2002). The inability of

the company that first introduces the innovation to exploit its potential could lead to a move of market return to another competitor.

2.2.2 Phases of innovations

The main idea of innovations is to transform an idea into a successful concept. Obviously, it is a long and complex process and the researchers needed to understand how it works. Scholars mention that the innovation is inherently a process and due to that should be studied appropriately because the way innovation process is established greatly influences the understanding of its nature. (Rogers, 1983; Schroeder, Van de Ven, Scudder and Polley, 1989). For example, Zaltman, Duncan and Holbek (1973) argue that innovation process consists of separate stages. The other perspective from Schroeder et al (1989) recognizes it as a more mobile process without certain implementation stages.

Perry-Smith and Mannucci (2017) conceptualize innovation as an idea journey summarizing what has already been studied in this field and they argue that the literature previously has missed the steps of innovation implementation. In their work they distinguish four steps of innovation process: generation, elaboration, championing and implementation. Each of the phases has to be elaborated:

Generation. During this step the new novel idea is being generated. Actors can generate limitless number of ideas and then choose one. Selected idea must be the most promising and valuable among others. In the next steps this idea will serve as a core concept.

Elaboration. The authors identify this step as the process of systematically improving and increasing potential of the core idea. The idea becomes ready to be presented to a wider public. It

ceases to be the creator's property and takes shape that is more conscious. Even bad ideas can gain potential after elaboration (Harvey, 2014).

Championing. Requirement for this step is strong understanding of the idea: what, how and why it should be implemented. Main goal at this step is to obtain support, resources and money to bring it to the next level. Taking in consideration the fact that novel and original ideas normally face resistance this is not a simple step to go through. It is required that innovator at this step must have high influence and strong arguments in order to gain legitimacy. As a result, the idea either receives approval or gets abandoned.

Implementation. Perry-Smith and Mannucci (2017) consider this step as a combination of two sub-phases: production and outcome. The production step implies the transformation of an idea into something tangible, a ready-made business process, a specific service or a final product. Next in the impact sub-phase, the finished and well-shaped idea is implemented in the field. The acceptance and recognition of it would be considered as a final destination.

2.3 Connecting Corruption and Innovation

Scholars have already paid attention to how corruption affects firms' performance. There are two opposite IB perspective on this relationship. Traditionally it is believed that reducing the level of corruption contributes to the development of innovation systems in the long run (Grossman and Helpman, 1993; Mauro, 1995; Mo, 2001; Anokhin and Schulze, 2009). Such "sand a wheel" perspective implies that the firm will not be able to effectively implement innovations due to inefficient use of critical resources, such as talent or finance. This is the most mainstream idea among the researchers (Keita and Laurila, 2016). Rodriguez-Pose and di Cataldo (2015) showed how government inefficiency on the periphery of the European Union creates a barrier to

innovative development. The article by Anokhin and Schulze (2009) demonstrate that the fight against corruption increases the level of trust in society that in its turn is important for the development of the business environment and innovation. Sand the wheel scholars argue that anti-corruption efforts have or at least should have a beneficial effect on innovative development (Jalles, 2016; Lau, Yang, Zhang and Leung, 2015; Mungiu-Pippidi, 2015). A study by Di Rienzo and Das (2015) has shown that corruption hinders innovative development but its negative impact is less in richer countries. Finally, it is worth to mention an article by Previtali and Cerciello (2017) that deals with innovations in the fight against corruption. They come to the interesting conclusion that corruption itself can be the subject of the most recent innovations.

However, the analysis of the conclusions of other researchers and the theoretical study of the problem cast doubt on this. In general, innovation systems are subject to the influence of corruption that can be both negative and positive. The latter is because corruption schemes of interaction between the main actors make it easier to obtain administrative and financial support, reduce the costs associated with the high risk of innovation, overcome red tape and complex bureaucratic regulations (Lui, 1985; Vial and Hanoteau, 2010; De Jong et al, 2012). Such an opposing perspective is called “grease the wheel” perspective. The arguments for this approach are that firms can benefit from decreasing time for formal procedures, overcome the ineffective governmental institutions and overall aggregate efficiency that will result in increase of business performance. This reasoning could be well illustrated with the following example. On one side, De Waldemar (2012) shows how corruption in India prevents new products in India from entering the market. On the other side, the study from Vietnam has the opposite results. Small firms in Vietnam make small informal contributions to locals that help to overcome the imperfections of public and governmental institutions in order to promote new products to the market (Nguyen, Doan, Nguyen

and Tran-Nam, 2016). Baranov and Dolgopyatova (2013) found out a strong relationship between innovations and corruption. Although they did not find direct correlation between them but they facilitate the rise of “corruption burden of the firm” – net loss of the company due to corruption in general. This shows the dual nature of the corruption: on one hand, it does not directly influence innovations but, on the other hand, as a result of it firms suffer from the lost profit.

The aforementioned articles support extremely interesting outcomes of the study by Balckburn and Furgues-Puccio (2009). It turned out that the economies of countries with approximately the same high level of corruption are exposed to different effects of this phenomenon. In cases where organized corruption networks have developed in the state, this phenomenon does not hinder economic development and as well does not hinder innovative growth.

To the results of the research by Levin, Matrosova and Shilova (2014) testify to the ambiguity of the relationship between economic and innovative development and corruption. In particular, they consider the hypothesis that the growth of the regional economy contributes to innovation but at the same time to the strengthening of corruption. Karmann, Mauer, Flatten and Brettel (2016) came to the conclusion that an orientation toward entrepreneurship can have different effects. When combined with risk orientation it stimulates corrupt behavior in organizations, while innovation orientation, on the contrary, inhibits such behavior.

To sum up, I can conclude that the relationship between corruption and innovation looks very ambiguous. The “sand the wheel” approach according to which innovation develops in conditions of a low level of corruption could be considered quite an obvious inference that is highly supported in the literature but not the only right one. On the contrary, many studies often indicate the aforementioned ambiguity. It is highly important to pay attention to the fact that the results of

previous studies corruption should not be considered only as a blocking factor. In fact corruption can “grease the wheel” of innovation or can even become the driver of innovative development.

The topic of the beneficial or detrimental effect of corruption on the behavior of companies in general and the development of innovations in particular was considered by many scholars. This determines the dual nature of corruption since it is mutually beneficial in many cases. For example, when evading the payment of various taxes, fees, fines, accelerating legal decision making, etc. On the other side, aforementioned articles prove that despite some obvious short-term benefits, companies ultimately suffer from financial losses in a longer perspective. On top of that, rapid innovative development created a fertile ground for the development of negative socio-economic phenomena in historical perspective, including corruption.

2.4 Historical background of corruption in Russia

In order to properly research and understand corruption, it is strongly needed to investigate the reasons for its occurrence. Corruption in Russia has not only deep historical roots but also marked historical background. Officials in Russian state have never been distinguished by special obedience to the law (Kuzovkov, 2010). While the legislative activities in this regard had never been at high standards (Kochesokova, 2014). In the middle of 19th century, Russian satirist writer Mikhail Saltykov-Shchedrin said: “Under such laws, life in Russia without bribes would be impossible”. According to many modern scholars (Guriev, 2004; Kuzovkov, 2010; Guriev et al, 2014; Schulze et al, 2016; Schulze&Zakharov, 2018; Bateneva, 2020) this statement, unfortunately, still perfectly reflects the current condition in Russia.

The very first mention of bribery appeared in the Russian chronicles of the 8th century, during the formation of a centralized state, characterized by the transfer of power directly from the prince to

his entourage. This system functioned as follows: instead of an official salary from the treasury, the state employees had to be kept at the expense of the local population for the entire period of their service. They collected offerings (*kormleniya*) both in money and in kind (bread, meat, hay, etc.), and arbitrariness and abuses were widespread (Mishin, 1994). The tradition of giving gifts to officials is rooted in the system of relationship that were finally formed during the time of Moscow Grand Duchy already in the 14th – 15th centuries (Kuzovkov, 2010).

The first legislative limitation of corruption-related actions belongs to tsar Ivan III and his grandson Ivan The Terrible was the first to introduce the death penalty for excessive bribes (Kuzovkov, 2010). The system of *kormleniya* (collected offerings) was replaced with salary that state officials should have received instead. However, the main conditions that gave rise to corruption in such practices remained unchanged. Among them are: first, centralized administrative hierarchy, second, strict state control of all spheres of life and, finally, legal insecurity of lower class (Kochesokova, 2014). This, obviously, allowed state employees to continue dealing with bribes and extortions. It would be wrong to speak of the complete indifference of the supreme power to the covetousness of officials. The fight against bribery has been taken over the centuries and with varying degrees of intensity. The most important steps in the history will be considered further.

Peter the First, the most known Russian emperor, introduced the Military Regulations, which legally considered different sides of bribery as a crime for the first time in Russian history (Suhara, 2004). Among the most interesting things, those Military Regulations provide for the death penalty for committing a crime in exchange for a bribe. After that in 1884, Aleksandr the Third, realizing that corruption is taking on more and more severe forms approved the “Rules for Combining Public Services with Participation in Trade and Industrial Partnerships”. As a result, formally the

combination of being a state employee and business activities became impossible simultaneously (Kuzovkov, 2010).

In modern research, we can find how historical perspective reflects the existing corruption. Red tape and bureaucracy still strongly support corruption in governmental institutions (Guriev, 2004). Low wages of state employees promote them to participate in corrupt activities, such as taking bribes (Schulze&Zakharov, 2018). That brings us back in history to the Tsar's times when bribes and abuses were still normal for officials. Back to nowadays scholars also explored quite unexpected relationship between modern technologies and corruption. For example, Sergei Guriev et al (2019) found out that the development of 3G technologies lead to a decrease in sensitivity to corruption as well as to decrease in government approval. If the uncensored access to the internet becomes easier accessible for wider audience it helps in spreading information that exposes the corruption in government.

3. Methodology

In order to explore the chosen phenomenon, the research design should be clearly structured. This path will cover the required information and will consist of the following subparagraphs: (3.2) approach of the research; (3.1) qualitative research method; (3.2) data collection; (3.3) data analysis (3.4) research ethics.

3.1 Qualitative research method

Opposite to measuring the results numerically, the stated research question and overall goals of the thesis aim to a deep investigation of qualitative factors. Understanding the insights and experience from the experts in the field of innovations is meant to be qualitative research. To sum

up, a qualitative research design will be adopted to fit the most to the current thesis and research objectives.

An exploratory nature of the research will be the best one to adopt to current thesis. Understanding is achieved through asking open questions in order to get a far better in-depth comprehension of the research question or phenomena. Exploratory study can be conducted in multiple ways. The most common ways are the literature reviews or interviews with experts or focus groups. Among the advantages of an exploratory study, it is important to mention that it allows to capture a broad perspective in the beginning but in the end particular aspects can be extracted from the contest to provide the best fit in answering the research question (Saunders, 2019).

The characteristics of the research design mentioned above fit well for investigating the research question and its objectives. The answer to the main research question can be found through collecting qualitative data from experts working with R&D and innovations in Russia. As a first step, in order to get a broader perspective of the environment in which the innovation implementation takes place it is important to get to know experts' perception of corruption as phenomenon and how it affects innovation implementation. This task requires obtaining information that will be used to answer the research question. Qualitative approach will allow to study the real-life experience and in natural environment (Gephart, 2004). However, it is important to be precise and accurate in interpreting words and meanings, experiences, rules and norms (Dawson, 1997). Gioia, Corley and Hamilton (2013) argue that for the accuracy of the research it is highly important to look into several sources of information (e.g. archives or media). For the second step, a deeper look into media sources will be taken to support and strengthen the findings.

Triangulation is essential to validate the collected data. Qualitative data is commonly collected from various sources to substantiate the validity of findings (Saunders, 2019). For current thesis,

data validity will be achieved in two steps. Firstly, the interviews with the experts from the innovation industry in Russia will be conducted in order to get a perspective from inside on the process of innovation in the local companies and the effect that corruption produces. Secondly, as advised by Gioia et al (2012) the overview of the media sources for the related issues will be done. The combination of these two types of analysis will provide the most accurate answer to the research question.

3.2 Data collection

Primary data for this thesis will be collected by conducting interviews with experts working with innovative activities in Russia. R&D employees and the managers responsible for innovations will be interviewed. Ten interviews with experts in telecommunication industry were conducted. In total, employees of four companies will be interviewed. Two of the companies represent telecom providers and the other two are the telecom equipment vendors. The overview of the companies is represented in the table 1. All the companies are large enterprises with annual turnover over 50 billion euros and their own R&D department.

Table 1. Characteristics of companies participating in the research

Criteria	Company 1	Company 2	Company 3	Company 4
Country of origin	Russia	China	Russia	EU*
Year of foundation	1993	1987	1992	1865
Annual turnover	23 billion USD	75 billion USD	21 billion USD	23 billion USD
R&D department // research direction	Yes // IoT, BIG data, cloud services, digital solutions	Yes // IoT, BIG data, cloud services, new generation telecom equipment	Yes // IoT, BIG data, cloud services, digital solutions	Yes // IoT, BIG data, cloud services, new generation telecom equipment
Nº of participants	3	3	3	1

Participants position	Mid and senior managers // R&D department	Mid and senior managers // R&D department	Mid and senior managers // R&D department	Mid and senior managers // R&D department
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*The company 4 originates from European Union. The manager asked not to mention the particular country for privacy reasons.

In order to interview experts successfully it is necessary to adopt the correct type of interview. Semi-structured interview seems to be the most appropriate for this thesis. Semi-structured interviews often apply to qualitative research (Ghauri and Grønhaug, 2010). Questions for such interviews are normally prepared in advance but the structure of the interview may vary regarding the flow of the conversation. It implies that some questions can be omitted in favor of more important ones, which can be clarified during the conversation if it provide the opportunity to reach better in-depth understanding of the topic (Saunders, 2019). Usually the interviews are conducted face-to-face but regarding the recent COVID-19 peculiarities all the interviews were predominantly taken via Zoom. The interview template consisted of nine questions and can be found in Appendix A. All of the interviews started with the general question about the department that is in charge of innovations and manager’s job responsibilities. It was followed by the questions regarding the process of innovation implementation and the difficulties occurring at different stages of innovation implementation. The final part was devoted to questions regarding corruption and its perception by managers.

Secondary data collection. Different sources of secondary data exist. As mentioned earlier this thesis will use information from media sources to achieve precise data collection. According to Saunders’ (2019) classification, it refers to documentary data. This type of data is usually adopted in qualitative research that also uses primary data for triangulation of results (Yin, 2009).

Documentary data can be found in such sources as social networks (youtube, twitter, etc), TV programs, magazines and newspapers. All of the aforementioned sources are reliable. For example, Sergei Guriev has his own official Youtube channel. Many Russian journalists moved to online platforms as well due to censorship on TV and official media. Twitter can be used to search for newspaper articles as most of newspapers have official accounts. Nevertheless, newspapers are considered to be the most reliable sources and thus will be used most for this research. The search for secondary data was performed on the internet using Google search engine and Radboud university newspaper database. The keywords for the search are “corruption in Russia”, “innovation in Russia”, “innovation + corruption + Russia”, “process of innovation in Russia”, “corruption in innovation”. The search results in Google gave in total over 6 million results. The search was performed within the first 10 pages and the news not older than 10 years. The selection of newspapers for use in this thesis was based on the research of Medialogy (2021) newspapers and online news agencies ratings. The search was performed in Russian.

To sum up, the combination of semi-structured interviews and information from media sources was used for this thesis in order to achieve triangulation. Such method will allow to reach credibility and dependability to the required level. It also will reduce the chances of misinterpretation.

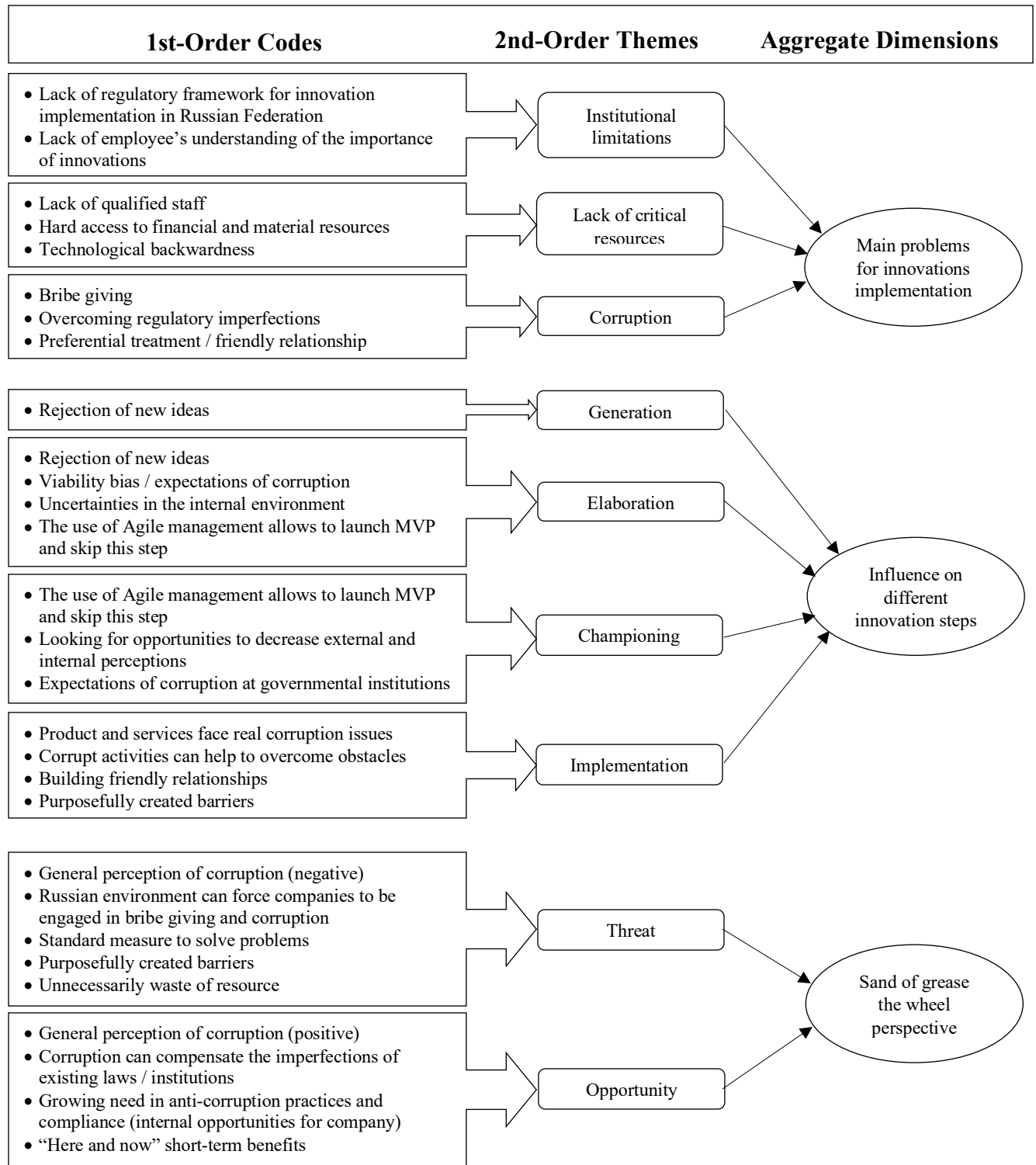
3.3 Data analysis

The data analysis was performed as the analysis of interviews: interview transcripts, information from media sources and researcher notes. The researcher notes for all of the performed interviews were taken during the interviews writing down the most important aspects of the interviews. The notes were expanded in full transcripts right after the interview was conducted. Furthermore, the

data was divided into fragments and labeled with 1st order to codes to identify the themes and relationships between them (Gioia et al, 2012). At this stage, the principles of necessity and sufficiency are important (Hinings, 1997). On the one hand, the codes must be clearly defined in order to avoid confusion and overlapping of the range of values of several codes. On the other hand, the number of codes should be limited and reasonable so that the temptation to assign a code to each new proposal will not be possible.

After the 1st order codes were applied it is obligatory to introduce 2nd order codes. At this step, the basic 1st order codes are organized into a smaller themes in order to reduce the number of codes to an easier manageable amount (Gioia et al, 2012). 1st order codes similar in meaning are summarized under one common organizing theme or a construct. The construct contains a generalization for the entire group of topics included in it. It should be sufficiently speaking and readable at a glance. Such approach allows to start answering the research question (Bleijenbergh, 2013). First order codes were grouped in order to highlight the main aspects of the research sub-questions: main problems that can companies faces in the process of innovation implementation, the influence on innovation phase and manager's perception of corruption – whether it is characterized as an opportunity or threat for the company. To narrow down 1st order codes they were divided into smaller groups. For example, to define the innovation phase 2nd order codes were divided into “generation”, “elaboration”, “championing” and “implementation”. All the abovementioned allowed researcher to transform 1st order codes into a manageable amount of 2nd order codes. Finally, 2nd order codes were grouped into a common aggregate dimension. Figure 1 represents the data structure of this research.

Figure 1. Data structure



After the coding has been done, the researcher returns to reading the original transcripts but at this time not read them linearly but uses the framework of a coding network. Now explanations to the texts can be given from the point of view of the formed 1st and 2nd order codes (Gioia et al, 2012). Thus, the researcher has a tool for understanding and generalizing the content of the original materials.

3.4 Research ethics

Research ethics considerations has become an increasingly important topic in conducting a research (Saunders, 2019). In business research and management, you cannot proceed without the involvement of a human participation. Due to that concerns the research ethics principles were applied to the research. Firstly, the *confidentiality* and *anonymity* of all the participants was guaranteed. Personal interviews, omission of names and company names, as well as the absence of audio or video recording devices guaranteed participant's anonymity. All of the participants were informed that they are participating in the research on a voluntary basis and the right to refuse participation in the study will be provided at any time. Extremely high sensitivity of the topic and the aforementioned principles imply that the content of interviews with experts will not be publicly disclosed in this thesis (Babbie, 2013).

Secondly, all the information regarding business processes, internal knowledge and practices is highly confidential information. *Data safety* must be achieved to avoid leaks of sensitive information. In this term, the interviews were conducted without using any audio or video recording devices. The researcher is originating from Russia and highly familiar with local people mentality. People will not freely, comfortably and truly speak in front of the recording devices. This is as well important to achieve trustworthiness of the research.

Thirdly, the researcher is responsible for the information collected and thus should take *responsibility for data analysis* as well as the *integrity* and *objectivity* in the interpretation of the results. With these principles mean that the information gathered while collecting primary and secondary data should not be interpreted to match the expected outcome of the thesis. In addition, misinterpretation should be avoided (Babbie, 2013). To achieve that the coding of the interviews was made as well as triangulation of results with the media sources.

On top of already mentioned, Sanders (2011) also notes that there are still some ethical principles that the researcher should be guided by when collecting information. However, all these principles can be combined into a single category - generally accepted norms of behavior. These include, for example, respect for the interlocutor, the use of appropriate vocabulary, respect for personal space and freedom, etc. The researcher is a well-mannered person and respected the generally accepted social norms.

4. Findings

In this section the results of data analysis will be presented. In order to answer the research question, it is required to understand the process of innovation implementation, what obstacles managers face during the implementation process and whether corruption is perceived as a threat or an opportunity in Russian environment.

First thing that deserves much attention is that telecom companies originating from Russia have full cycle of developing and implementing innovations: from idea generation to implementation phase. They acknowledge the importance of developing new products and services that can be beneficial for both clients and business in general. These companies are represented by number 1 and 3.

We create and develop really new digital services and platforms for both B2B and B2C. Some of them are in collaboration with other big companies – retail, banks, insurance, etc. Big Data from different industries will help you learn to deeply understand the desires of customers and create products that solve real user problems.

Manager 1. Company 3.

You should understand that the approach to production has changed nowadays. [...] The key part here is the after-implementation development. The idea launches as minimum viable product in the shortest possible time and then we observe the reaction of customers – we correct the bugs, add new features, etc. Basically we implement the ideas immediately and monitor and improve them when they are already exist.

Manager 3. Company 1.

However, companies from abroad have only implementation phase of innovation activities. R&D departments are underdeveloped and mostly perceived as departments in charge of promoting sales of innovative products.

Foreign companies prefer not to locate R&D activities in Russia. Why? For example, for the same reasons airline companies do airplane registration abroad. This is simply because the legislation and taxation rules are much better, the rules of airplanes maintenance, registration period and validity, labor unions and everything else are recognized all over the world. If you do the same thing in Russia than it will cost you more and on top of that it will cause additional problems afterwards because leasing companies don't want planes that were serviced in Russia.

Manager 3. Company 2.

The main reason for this is that employees represent R&D department only formally. They do not conduct any real research in Russia. The responsibilities of such employees are displaced to the field of sales and products promotion in the market.

Here we are focused mostly on existing networks maintenance and looking for possibilities to promote our newest 5G tools. [...] we are a part of global R&D but with responsibilities of technical sales people.

Manager 1. Company 4.

Companies 2 and 4 have only innovation implementation phase in Russia, however, that mean only that they do not perform new research activities in Russia but they are actively engaged in improving existing products to local conditions and requirements.

Our products are well designed and tested in their initial state but when we make adoptions here we can face some difficulties. For example, we sell brand new super innovative, compact, outdoor radio unit to customer. The technical solution is perfect, price – also perfect. Everything is good but it is out of service in one week. Why? Simply because of the permanent rains and high humidity in Saint-Petersburg! It turned out that for Russian market we had a special mounting kit that did not provide complete tightness to the radio unit. With this I would like to highlight that any product or service, innovative or not, can prove itself only after implementation.

Manager 2. Company 2.

For the emergence of full-fledged R&D centers of foreign telecom companies, adequate incentives are needed that are not yet available in Russia. Due to digitalization, the development of wireless technologies and the Internet of Things, many companies might be interested in opening R&D centers in Russia, however, legislative, production, commercialization and other problems stop them from doing so. In connection with this, many companies are forced to deal mainly with the adaptation of their existing innovative products to Russian realities and its sale.

On the other side, telecom companies originating from Russia perform its innovative activities in Russia. They seek to develop new products and services within the existing environment and if possible in the areas especially designated for that inside the country.

4.1 Main obstacles for development of innovations

To start with, it is important to identify the main problems that hinder the processes of innovative development in Russia. One of the most frequently mentioned aspects blocking innovative activities is lack of proper legislation in this field and the shortage of qualified employees.

Main problems would be – regulatory framework, ethical issues and personal data safety.

Manager 1. Company 3

There are many reasons for that: law imperfections and intellectual rights protection, bad infrastructure outside Moscow [...] the qualification of the employees here is lower than it is normally required. On the other side, it is not a complete truth. We have a huge number of talented people in Russia with an excellent level of education. Here is the only problem. They are already abroad, hunted by other companies, especially Russian technical scientists are in very high demand. Those who left in Russia work for low-

effective state-owned enterprises or changed the work sphere because they can earn more money there.

Manager 2. Company 2

To date, the Russian government has not developed a legal framework that would resolve issues related to the development and implementation of innovations. There is a draft federal law "On innovative activities in the Russian Federation" but so far this law has not entered into force. So that causes administrative barriers that in its turn support corruption. It looks like there is a specific purpose not to finalize the law, isn't it?

Manager 2. Company 3.

Imperfections in regulatory field could lead to the very serious consequences for companies. Many telecom companies are interested in participating in state contracts for digitalization. However, not all of them are ready to be engaged in such activities due to high risks of breaking the law during the implementation process. TASS news experts (2020) highlight the importance of this statement by explaining how the lack of legislation can lead to a criminal prosecution. They argue that companies attracting funding and investing money in innovation are unable to show the required level of ROI and thus become figurants in criminal cases of ineffective spending of budget funds. According to RBK news (2019) the lack of qualified staff is one of the top problems for most companies. Raising the pension age should temporarily solve this problem, however, in the long term, the staff deficit will only grow.

Secondly, the lack of understanding by employees of the importance of innovation, the critical attitude of partners and, as a result, the lack of a culture of innovation leads to the fact that processes

are slowed down or not even start at all. Many managers often associate these problems with the fact that such a culture began to form in Russia only after the collapse of the Soviet Union. Prior to that, there was simply no normative tradition for such transformations.

The first obstacle can be the mentality of the people. Not every employee is ready to quickly adapt to a new work format, a new level of responsibility and the need to work on only one project. The understanding that a product released into the world is not a final point of a project but only the beginning of its development. This could be a challenge. For us such difficulties cannot be called critical since the markets in which company operates have always demanded the readiness of employees to change and most of the specialists turned out to be open and capable of switching to a new format of work. But for some large companies this problem can become a serious deterrent.

Manager 1. Company 1.

This shows that employees are not always enthusiastic about innovations, because they transform the existing order, require the development of new ways of interaction and work in unknown conditions. In addition, often middle management feeling its responsibility to the leadership is simply afraid to take risks because its status and work depend on it. All this greatly slows down the implementation process and does not allow you to go beyond the usual pattern of behavior.

As I already mentioned rejection and denial of new ideas. That is a great problem. People produce innovations and the system of relations in which they operate should facilitate the production of innovations. People in the industry are rejuvenating but still the “soviet mentality” management is still in action. That causes such problems as:

insufficient work organization, conservatism of aged employees, fear of the new, strong vertical management system, formalism, terrible overorganization and bureaucracy. [...] such issues as the presence of tight exchange controls, poor protection of property rights (especially intellectual property) and a high level of corruption play a big role in developing innovations.

Manager 1. Company 3.

Long process of approval and acceptance, endless negotiations and revisions - all this constitutes a serious bureaucratic brake for the rapid and effective implementation of innovations. Unfortunately, this is a fairly common problem in Russia that is difficult to deal with for companies alone and it will take a long time to overcome it. Obviously this is the prerequisites for corrupted actions. Interestingly, the process of state digitalization is seen as a strong facilitator for innovations implementation but the managers are not sure about it. As aforementioned big companies and state institutions resist rapid changes and thus create serious blocks for innovative development.

Thirdly, to ensure continuous innovation, various types of resources are needed. The main of which are labor, material, technical and financial. The lack of a competent team with the necessary skills and competencies, as well as enough administrative support to launch and promote a project is a serious obstacle on the way.

[...] corruption in this case is equal to lobbying. Whereas lobbying is power, power to make decisions. To keep thing running in this country you need some authority. [...] I will allow myself to fantasize a little. If we had a strong lobby here in companies or better in the government. Let's say in the US Chinese equipment is prohibited, what if we had

something like that here? The companies will need to switch to alternatives which are not that many. This could have made Russia the biggest market for us. This is unrealistic, it will touch interests of too many “influential persons”.

Manager 1. Company 4.

Finally, corruption was mentioned. However, I want to note that not all of the respondents were eager to mention corruption themselves. Almost half of the interviewees touched on this topic only after a leading question of whether they face corruption issues at work. Due to the sensitivity of the topic, not all the managers were open to further discussion.

What corruption issues? You should not expect someone to say “oh, yes we do take or give bribes”. There are some things that we all understand now but can’t say it out loud. We all know it happens somewhere.

Manager 1. Company 1.

There is always a chance for corruption. But you should understand that people will not be completely honest to tell you. Everyone knows about the existence of corruption, but this is also a taboo topic. It is not common to talk about it.

Manager 3. Company 1.

Honestly speaking, some ideas will not grow into something bigger only because our staff knows in advance that it will fail. They know that regulatory barriers can be overcome in two ways only. Obviously, bribes and corruption or lobbying. We are not powerful enough to lobby anything as well as the costs of lobbying are extremely high.

Manager 1. Company 3.

Solodkov and Lindell (2017) from RIA news reported on the biggest companies that were involved in corruption scandals in Russia. Two of the companies from the article are among the companies represented in this thesis. It is said that they were using their Russian offices in order to bribe its subsidiaries in Uzbekistan to gain preferential treatment at the market.

Bribes are normally paid in the form of rollbacks or “otkat” in Russian. The managers agreed that this is the most common form of bribery. They said that it normally works with contracts. Two companies in this case agree that one of them enters into a contract with the other and for this receives a remuneration in the form of a percentage of the total transaction amount. This is what manager from company 4 and 1 refer to in their answers.

I heard the rumors that they [competitors from China] pay money to top management in order to receive contracts. I believe this is not far from truth.

Manager 1. Company 4.

Giving and taking bribes, otkat. That is corruption for business in general. No one say corruption basically, they say “we want 10%”.

Manager 2. Company 1.

Such bribes can occur not only in monetary form as a rollback (otkat) of a certain percent from a contract. Bribes in the form of barter are also common. For example, company employees responsible for distributing orders, payments for goods and services performed, purchasing and supplying specialists may receive incentives in the form of expensive gifts.

[...] there was one client who called me and said “I am thinking of Play Station 4 as a present for myself for the New Year” and he was a multi-million rubles client. Surely, we bought him a PS4 as a present. There is no company in Russia who will lose a multi-million client not buying him a Play Station.

Manager 1. Company 2.

It was also mentioned that many employees abuse their positions and create contrived barriers in order to take bribes. This phenomenon is especially widespread in government structures, since there are no alternative places to receive required services.

A friend of mine works in small company and they do state certification for different health products. He told me an interesting corruption scheme. You go for certification authority and they say that the appointment must be made in advance, there are no places for next month. But if you call special company (there is an advertisement inside the same room) than you can get the same service very fast for a small fee.

Manager 2. Company 3.

It is simpler to have a short example. For example, our colleagues have to get certificates of compliance with epidemiological standards for our equipment. These certificates are issued by state authority. And this is a bottle neck. According to the law, all vendors must get it. You understand what it is all about? Our certification specialists have to be in “friendly” relationship with people from this authority. Otherwise, they say “we are out of state certification blanks, come back next week” or “somebody is ill, we are doing all the best”. You see, this is very simple hint, an allusion – come and talk. Surely, it affects our operations – uncertified equipment is illegal to use and sell.

Manager 1. Company 2.

I want to focus the attention on the interesting fact that managers avoid speaking about bribes as of their personal experience. They know corruption occurs but do not want to be associated with it. RBK news (2016) wrote that most Russians perceive a bribe as an unconditional evil, but at the same time many of them are ready to solve their problems with its help. This highlights the tendency in society in general and among managers as a part this particular society to see opportunities in corrupted activities.

Weak legal framework is a huge source of corruption. Companies from telecom sector are especially dependent on government agencies, as their activities are considered important for ensuring country defense and security needs and their entire infrastructure is considered to be strategically important.

We are dependent largely on government legislative regulation and that is the large source of corruption.

Manager 1. Company 3.

Even the Analytical Center for the Government of the Russian Federation (2019) mentions administrative and legal barriers as an obstacle to innovative development and a source of corruption.

In the same time, the managers from company 2 suggest that some activities aimed at building friendly relations between companies are not considered as a form of corruption in Russia. On the contrary, they regard such events as absolutely business relationships and a part of regular business environment.

We sometimes can give presents to our customers or partners. Is it a corrupted action?

We can hold an event that customers can attend, e.g. in a restaurant. We demonstrate our products and solutions there and if they attended we can offer them our devices or discount vouchers for the company and so on. It increases loyalty to the brand and on top of that, we are not the only company that does that. This is true for at least big enterprises. It might be that we are only a bit more generous.

Manager 1. Company 2.

Howbeit, such activities might be recognized as illegal. It is up to local employees and management team to decide whether they want to be involved. The opinion of most interviewees is that normally there is always a way of legally solving the problems because experienced workers know beforehand the specific sources of corruption and ways to avoid it. The refusal of such “interaction” can affect business performance.

But adoption to local needs could be quite challenging. And here I don't only mean technical adoption it is also corruption. [...] it seems to me that this is obvious enough for everyone. How can this be managed, usually you just come across some kind of semi-legal payment or rollback schemes. Then you decide whether you need it or not, try to assess the risks. I would say this: sometimes it is impossible to fulfill the KPI without this. Many of our employees know in advance where they can encounter a "hairy hand" and will try to avoid such places if possible.

Manager 3. Company 2.

From the other point of view, the possibility to solve problems faster is not always a good option. Companies try to prevent its employees from bribery and in this way secure its reputation and avoid problems with law enforcement.

You know that we have compliance? We are not allowed to get engaged in illegal practices.

Manager 1. Company 1.

To sum up, corruption is among the main obstacles that companies face in the process of innovation development and implementation. According to Vedomosti newspaper (Stepantsov, 2018) around 30% of employees in Russia with the income rate higher than average are involved in different types of corruption relationship. Such relations are perceived as a necessary condition for mutually beneficial cooperation. Thus, bribery and corruption are pervasive, and managers take it as common practice in the business environment.

4.2 The perception of corruption

Corruption like any other complex social phenomenon does not have any single definition among scholars. The same happens with the perception of corruption between different managers. The perception can be formed due to different life experience and is normally associated with corruption schemes, payments in money or “otkat” (rollback) – the share of negotiated amount, usually as a percentage, of a third party contributing to the successful transaction.

The first thing that comes to my mind when I hear the word corruption is “enrichment”.

This what it’s about, people are making themselves rich no matter how.

Manager 1. Company 2.

Almost all interviewed managers characterized corruption by the presence of such features as rollback, enrichment, and the use of official position for personal benefits. However, I would like to highlight several cases separately. One of the managers tried to be creative in his answer and provided a good comparison of corruption with cudgel.

In a wide sense corruption is like a cudgel hanging over your head. You need to learn how to dodge its blows, or if this is impossible then try to minimize the damage from it hitting you.

Manager 1. Company 3.

Corruption itself can mean many things. However, in most cases, this word means any type of bribery. Interestingly enough, one of the managers argued that the perception of corruption also requires an understanding of the reasons for its occurrence.

[...] corruption is an obviously a broad term used to define the process of abuse of power but when you say it you normally mean simple bribery. In this terms I would say not the corruption itself is interesting but what are the reasons for its occurrence and what we can do with it. "Why" is the key question to understanding any phenomenon.

Manager 2. Company 1.

Thus, it can be assumed that perceptions of corruption may vary depending on what a particular manager encounters most in his work or everyday life. This approach is quite well explained by the fact that household corruption is the most widespread in Russia. According to an article in Novaya Gazeta (Bashkatova, 2020) every second Russian regularly faces everyday corruption.

It is important to understand whether the managers see any opportunities in corruption or they perceive it as a complete threat. During the interviews the managers were not taking a single perspective to this question. On one side, corruption is a negatively colored word that normally reminded them of illegal activities that are perceived as a threat.

Breaking a law is an obvious threat. After all, from the perspective of the law, corruption is performed to satisfy someone's personal interests. Likewise, laws can also be created to meet personal needs. In any case, ordinary people pay for corruption, it does not create any public goods and in the long term destroys the foundations of the rule of law and the functioning of normal market relations.

Manager 1. Company 4.

On the other side, some of the managers were also thinking about the opportunities that the companies could gain from corruption. In their opinion, corruption compensates the shortcomings of poorly functioning state and social institutions. The ability to pay to speed up the process, reduce the bureaucratic burden or even completely omit the need to follow certain statutory norms will help maintain the company's competitiveness in the market.

To my mind, businesses are constantly trying to figure out what kind of work conditions they are provided with and trying to find the best opportunities in order to earn money. If the state or environment in which they operate leads to such a scheme, then it will be so. The aforementioned obviously points out that businesses will perceive corruption as an opportunity. Yes, this is a negatively colored word, but it doesn't matter. As I said you adopt or you are in the end of the queue.

Manager 1. Company 2.

In general, there is no consensus among managers on an unambiguous negative impact of corruption on any type of economic activity: some managers argue that corruption can help overcome some of the inefficiencies in management and serves as a standard measure of solving such problems.

They just play according to the rules accepted in society and you cannot live in a society and be free from it. Bribe is a standard measure for solving problems. Sometimes it would be possible to do without any bribes but this is so common that it is easier to give it than to figure out whether there will be an effect without it, especially if the amount of money or a gift is not a significant burden on the company's budget.

Manager 3. Company 1.

Most managers agree that the main reason for high corruption is the imperfection of state institutions. In addition, there is reason to believe that some objective circumstances make a significant contribution to the need to be involved in near-corruption activities.

Corruption is a very specific phenomenon. I think it is highly associated with the local environment and governance. I have to admit that we cannot avoid it. Without a targeted and comprehensive fight against corruption by the state we are unable to effectively fight it at our own. If I resist I know there are two people outside the company who will do it. Unfortunately, this is a "necessary evil" nowadays in Russia.

Manager 3. Company 2

In this way, the weakness of governmental institutions, lack of mechanisms of interaction between business and the state and low level of participation of citizens and employees in control over the

state and its politics lead to the formation of the environment that predisposes to the active development of corrupt relations.

In this case, it is highly important to consider the attitude of employees to the methods of combating corruption within the company is extremely indicative. Some of the respondents mentioned the need to solve these problems at the state and company level.

Anti-corruption measures could lead to a significant increase in overall economic activity, and in particular to high growth in innovation. In this regard, investments in reducing corruption are the most profitable from an economic point of view. And both technology and innovation will be added to this.

Manager 1. Company 3.

From one side, they agree that corruption is a threat and does not benefit companies in the long-term perspective. From the other side, they do not consider some ways of unprofessional interaction with partners to be conducive to corruption such as gifts or informal meetings. The use of one's official position for personal gain is limited by the scope of the law and coercion to comply with it as well as the moral characteristics of the employee.

In general, I've never thought of the corruption as an opportunity. The only opportunity here is only a possibility to solve problems. After all, we recognize the cultural peculiarities of doing business in other countries, for example, in Japan, it is customary to give a business card to your partner with both hands but in our country it is customary to discuss issues at a restaurant table. I do not see it as a problem.

Manager 2. Company 1.

Elena Panfilova, founder of the Russian branch, and in 2014-2017 vice-president of the global branch of Transparency International, in an interview with Sergei Guriev (Guriev, 2020 November 25) confirms all of the above. In her words, building friendly relations with the necessary people, top managers and government officials is a modern Russian trait that is deeply based on historical roots. Many are seriously talking about the "genetic predisposition" to this type of relationship. Obviously, that is not true. People rely on blat and informal connections that could make their lives easier. Elena argues with this position in the following way, she sets the question what people or company managers will do if at one point their system of friendly relations disappears. The answer is that they will inevitably turn to the law as a norm that should regulate social and business relations.

Unfortunately, nowadays corruption is the baseline of business relationship and keeps companies afloat in Russia. Those who not aware of breaking the law are in predominant position.

Our competitors from China can offer prices lower than its cost price and they will make money on maintenance contracts and software afterwards. On top of that, they are not aware of playing dirty. I heard the rumors that they pay money to top management in order to receive contracts. I believe this is not far from truth. The "Big three" (NB – this is the top-3 Russian telecom providers in Russia) networks are running mostly on Chinese equipment [...] It steals our work and money. We are becoming less and less profitable in Russia. On top of that, bad news are the sanctions, growing exchange rates and extremely high import tariffs. How do you think companies manage such situations? Nobody has spoken openly about this yet, but I think we are under the threat of closing the branch in Russia.

Manager 1. Company 4.

Bribing for receiving contracts was largely discussed in different spheres, however, not all of them are available to the public. Kommersant (2006) wrote about such scandal with Company 4. They tried to influence the number of purchased devices and their placement at the most demanded slots in retail chains. At that time they managed to do without serious consequences and the retailer began selling devices from a rival company.

Thus, innovation is part of a complex value chain and is associated with a high degree of uncertainty. Among other things, uncertainty manifests the ability of the innovator to appropriate most of the created profit and therefore is in a rather strong dependence of state institutions and corruption. The success, quality and innovativeness of new products and services provide an opportunity for profit. In this case, we can observe how the corruption component shifts the emphasis to the company's ability to have the necessary connections, financial and other resources to influence the process of introducing innovations. For this reason, today foreign companies prefer not to have R&D centers in Russia and import products only at the stage of innovation implementation. Russian companies have to maintain the entire development process in their own country. At the same time, some companies successfully implement non-standard solutions in order to save competitive advantage on the market, such as Agile. Shifting innovative activities to specific environments like Skolkovo is helpful as well. Although managers from Company 3 pointed out that idea elaboration is not a problem in most cases.

4.3 Most affected stages of innovations

The innovation process is a systemic organized set of stages carried out to develop and implement innovations. Managers were asked if corrupted practices affect the development of innovations in

their companies. It was expected that implementation step will be the most affected by corruption. All of the mentioned above does support this statement. The managers never mentioned it at any other stages before implementation. Idea generation step is not a problem for all interviewed employees as they can freely produce ideas. Instead of corruption, rejection of new ideas will be considered the main problem at elaboration step. Doubts about the possibility of commercializing the idea in the future are among the main problems at this stage.

Sometimes it could be that the promising idea will never reach us – it could be that someone doesn't like it or don't understand. Rejection and denial of new ideas are the main problems in our field.

Manager 1. Company 3.

For elaboration and championing steps of innovation implementation one of the companies use Agile development, which actually allows you to skip these stages and immediately proceed to the innovation implementation step.

When the technology or innovation is being developed at ICC [...] Working groups include specialists from Company A, Company B and other subsidiaries that are needed to proceed with technology. After that the drafts are represented to our marketing and financial team. Their approval is a must before we can start implementation. [...] The timing of product development is very important here.[...] It turned out to be more profitable not to focus on the long development process of large and complex products but to release the so-called minimum viable product (MVP) in a short time and immediately begin to implement it receiving feedback from customers.

Manager 1 and 3. Company 1.

The manager said that the board of executives consider Agile methodology management to be the innovation itself. Their point is that normally such approach to innovations development management is not common for huge telecom companies. This type of management allow to skip elaboration and championing steps and corruption during these steps. However, when it comes to implementation step the chances not to face corruption are quite low.

I can say that the risk of bumping into corruption with product innovations is much higher than with organizational ones. Likewise, for innovative firms, the chance of dealing with corruption is much higher than for traditional firms because they need to obtain more permits from governmental institutions. The creation and implementation of innovative ideas is always risky. At the first stages of creation it is very difficult to say how successful this or that project will be.

Manager 1. Company 1

During the implementation step some of the barriers for innovations are created on purpose. The great examples were already mentioned above: health certificates or compliance with epidemiological standards. All the telecom companies are prepared for that in advance. Experienced employees know where to avoid such barriers if possible but managers say that in reality they sometimes have to be engaged in illegal practices.

With innovations in telecom, you have to act fast and in the right moment so in that sense it makes further implementation planning useless. It is better to switch over to another project. This is management in this case – avoid or adapt. We know some mechanisms are created purposefully to promote corruption so we avoid them if possible.

Manager 1. Company 3.

Managers also told that the decision to be involved in corrupt activities is not always obvious. As well as it is normally not decided at the level of regular employee but at top management sessions. Some of the extra expenses that might occur are pre-budgeted and therefore not a big surprise for anyone.

Of course we know that some problems may occur, we are over 20 years in Russia. Adopt – this is the answer. When we plan to sell and implement our product, we have some extra expenses included in the budget: presentations, business dinners, business trips, presents, etc. As I said I've never been asked to give bribes or give presents in this company. But if such a need arises, I am not sure that the company will decide to completely legally resolve such issues because they run counter to the interests of the business [...] Not to mention, that I know we made presents, paid for vacations and so on as a bribe but the company never gives money. I guess this is the sort of company's informal regulation for bribes.

Manager 1. Company 2.

It is worth noticing that Company 3 manager said that no matter that they know corruption exists they will try to solve problems in the legal field. This organization is huge and bureaucratic itself so it can afford long negotiation process in the legal field. On top of that, the anti-corruption practices are widely adopted inside the company.

I think it is quite important that we are a big company – everyone we interact with understand that we have a strong legal support team and we can afford to solve many issues in the legal field. On top of that, one of our main principles is transparency. All of the procedures, tenders, negotiations are open to the audience and partners and it makes

it even harder to get involved in corrupt activities. We try to avoid corruption at any means.

Manager 2. Company 3.

On one hand, some companies put the interests of the business development at the first place and allow themselves to be involved in illegal practices when needed. On the other hand, we see companies that strongly resist corruption and try to act only in the legal field. I believe that highlights the “avoid or adapt” strategy mentioned by the managers. The companies are not easily involved in solving problems via bribery but in most cases they prefer to overcome the obstacles using existing internal resources and legal regulatory environment. Vedomosti (2018) wrote that more and more companies now adopt anti-corruption practices to secure its business. They argue that even though giving a bribe can have a significant effect on some aspects of the company's work and speed up bureaucratic procedures, the losses from such actions can be many times greater and even endanger the existence of the company as a whole.

5. Discussion

In this research the effect of corruption on innovation development in Russia has been studied. The four huge telecom companies were participating in this research. It has been studied what is the overall perception of corruption of management in Russia and whether the development of innovations is affected by the high presence of corruption in local environment. On top of that, this research links together the phases of innovations development and the effect of corruption on it. The research question was posed as follows:

How does the corruption level in local environment affect the choice of companies to implement innovation?

In order to answer this question three sub-questions were formulated. First of all, it was important to identify which problems the managers will denote as the obstacles for innovations implementation. Ermolova (2015) argued that the combination of environmental factors influence the companies decision to innovate. The managers mentioned various factors influencing the process of innovation and thus confirmed the literature. However, the mentality of local workforce was not mentioned in the literature. It was discovered that many employees prefer to maintain established working relationships and technologies and resist innovation implementation. Understanding the environment and managers concerns is vital for answering the other sub-questions. Corruption, bureaucracy and the lack of proper legislative framework are among the main issues in developing innovations. Many scholars highlighted the importance of governmental regulation in facilitating innovation development (Feldman, 2004; Khan, 2006; Lerner, 2020). Russian government does not seem to be participating. The managers mentioned the draft bill on innovation development that has not been finalized and not did not enter into force since 2013. On contrary to the literature, Russian government in fact creates structures that are monopolists in a certain area (e.g. equipment methodological certification). It was noted that such policy promote the growth of corruption and bribery. It should be noted that these are not all problems. It include the problems related to the weak governmental support, the corruption component and extremely high risks of investing in innovations due to the lack of proper legislation and qualified staff.

Secondly, it was discussed which phases of innovations development are mostly affected by corruption. Perry-Smith and Mannucci (2017) argued that innovation implementation is a process and divided it in four steps. It was found out that not all of the companies have all four phases of innovation development. First of all, foreign companies prefer to locate generation, elaboration and championing steps outside Russia. They perceive Russia as a great market form selling and

implementing innovation but not for its development. Russian companies in its turn have no other choice than to develop innovations at home. However, that does not mean that the process goes as Perry-Smith and Mannucci (2017) described. The use of modern project management techniques allow companies to skip championing step and move immediately to implementation phase. This is an interesting finding that indeed support the ideas of Rogers (1983), Schroeder, Van de Ven, Scudder and Polley (1989) who argue that innovation process requires deep understanding of how it is established in each individual case.

It is important to note here that companies 2 and 4 originating from abroad lack the first three steps: generation, elaboration and championing the ideas. However, it does not mean that they are not engaged in innovative activities. These companies sell their products that were invented abroad but adjustment to local requirement is needed on permanent basis. On the other side, Russian companies 1 and 3 have their own Innovation development centers that cover full cycle of innovations development: from idea to implementation. It was expected that implementation step would be the most affected by corruption. At implementation step the final product is introduced to the market and faces the effects of corruption outside the company (Ermolova, 2015). To add to that, it was studied that managers expect that products would face corruption before the implementation step. Managers mentioned that some of the ideas do not go beyond generation phase just because managers understand in advance that they will not be able to bring these ideas to the stage of implementation. In this case, it turns out that all stages of innovations development are prone to corruption in one way or another, albeit not directly.

Finally, corruption was considered to be a big issue in Russian environment and hence it was important to understand the perception of it by local management. The literature suggested two perspectives on this question – the corruption could “sand the wheel” and have a negative impact

(Grossman and Helpman, 1993; Mauro, 1995; Mo, 2001; Anokhin and Schulze, 2009) or it could “grease the wheel” and therefore can be seen as an opportunity for companies to succeed (Lui, 1985; Vial and Hanoteau, 2010; De Jong et al, 2012). As it has been studied, the managers provided both negative and positive opinions. Opposite to the literature, they were not inclined towards a certain perspective. Their opinion in this case was “avoid or adapt” – meaning that corrupt actions are only necessary in some extreme cases, otherwise, it is better to be avoided. However, it is important that they all mentioned that even if corruption is seen as an opportunity it still has a negative meaning. This is because it can be beneficial for companies in the given time but could not solve problems in a long term perspective. Local environment and governance are the main facilitators for engaging in corruption.

All of the mentioned above can provide the answer to the main research question. No doubt that corruption in Russia is widespread and telecom companies operating in Russian market often deal with it. In this regard, many companies in Russia that do not have the opportunity to rely on the really working economic, social and political institutions of the country are forced to rely on informal institutions and engage in informal economic activities that leads to widespread corruption and development of gray sector of economy. Karmann, Mauer, Flatten and Brettel (2016) showed that innovation activity inhibits corrupt practices, however, according to the managers that is not always true and could work in the opposite direction. Each of the interviewed managers of companies participating in this research stated that officials take bribes to "resolve issues" as well as such corruption scheme as *otkat* (rollback) in monetary or barter form between the participants of the market is a normal practice. The most interesting finding is that the most managers no longer want to put up with corruption but still see bribes as an effective method for solving problems and overcoming institutional limitations.

6. Conclusion

From one side, Russian market is characterized by a high level of corruption. From the other side, Russian government and companies operating in the market always highlight the importance of implementing innovations, digitalization and high innovativeness of the economy. Four huge companies operating in local market were taken for this research to study the effect of corruption level on innovation development. It was found out that all of the companies are experiencing effects of corruption and institutional imperfections. Firstly, it was studied what are the main problems accompanying the development of innovations. Apart from the obvious, it was found that the soviet mentality and staff readiness for change is significantly important.

Secondly, the impact of corruption on different innovations implementation stages was studied. Implementation stage was expected to be the most affected by corruption. The results showed that the effect of corruption can indirectly influence the development of innovations. Some of the ideas do not reach the final implementation stage due to the high expectations of corruption burden during the development process.

Finally, it was studied whether the managers see corruption as an opportunity or threat for the development of innovations. This part enriched the literature streams in terms that managers called “avoid or adapt” management. It means that they do not stick to the particular sand or grease the wheel perspective but argue that the choice of perspective depends on the possibility to overcome the obstacles in the legal field.

6.1 Theoretical implications

This research combines the literature on phases of innovations development (Perry-Smith and Mannucci, 2017) and corruption. It provides understanding of which steps are mostly affected by corruption. Despite the fact that it was expected that implementation step of innovations development would be the most affected by corruption it was figured out that corruption could indirectly influence of phases of innovations.

What's more, it enriches the corruption literature in terms of how the sand the wheel (Grossman and Helpman, 1993; Mauro, 1995; Mo, 2001; Anokhin and Schulze, 2009) and grease the wheel scholars (Lui, 1985; Vial and Hanoteau, 2010; De Jong et al, 2012) perspectives are perceived by real managers. The meaning of the concepts of bribery and corruption presupposes the solution of certain problems, however, it is not associated with opportunities in the literal sense. According to the managers, companies would choose to pay bribes only if there is no option to solve existing problems in the legal field.

Finally, this research does confirm the existing finding from the literature. Bureaucracy-related obstacles are created specifically to promote corruption in state institutions (Guriev, 2004). The managers mentioned that strong governmental support could have helped to increase innovative activities (Feldman, 2014). On top of that the quality of regulatory mechanisms and decline in number of administrative barriers could be helpful (Feldman, 2004; Khan, 2006; Lerner, 2020).

6.2 Practical implications

This research has a strong practical relevance. Despite the relatively high level of development of science and technology, as well as the attractiveness of Russia from the point of view of the

development of innovations and their commercialization, this market is still not considered very attractive by some players. Economic growth and strong position of the state in the world largely depends on factors such as intellectual rights protection, strong regulatory framework and developed infrastructure including effective anti-corruption mechanisms. The aforementioned attributes are not developed to the level required for rapid development of innovations. Commercialization of advanced technical developments and innovative solutions are also important for companies operating in Russian market. Many interviewed managers note the imperfections of many existing institutions and weak government regulation. In this regard, Russia must have a national anti-corruption action plan. Among other things, it should provide for the development of the regulatory framework, improvement of the authorities to prevent corruption, introduction of compliance system for state employees, sociological studies of the level of corruption, etc.

State inaction inevitably leads to the development of corrupt activities. Existing real life examples of typical bribery and corruption were reviewed in this thesis. This could save time and effort for practitioners who want to know the current situation with the development of innovations in the conditions of Russian environment.

6.3 Limitations and recommendations for future research

This research was conducted within the specific context of Russian environment. However, Russia has all the prerequisites for active development of innovations. Great sources of global innovation are large companies and fundamental research. On a national level, the involvement of large business in innovative process plays a decisive role.

Another limitation is a limited access to data. The current situation in Russia does not support the collection of data on corruption. News such as the arrest of Alexei Navalny (Troianovski and Nechepurenko, 2021), the recognition of the Anti-Corruption Foundation as a foreign agent (Dergachev, 2021) and later an extremist organization (BBC, 2021), the dismissal of people from their jobs for supporting Navalny's initiatives (Danilov, 2021; Tolmachev, 2021) has a significant influence on the ability of the researcher to collect material for research.

Finally, the research is also limited to telecom industry and huge companies with high amount of financial, managerial and administrative resource. Such selection was made specifically due to the availability of research to access staff for interviewing. It is widely known that corruption is rampant in industries such as construction, mining and finance. It would be highly interesting to assess the effect of corruption on implementation of innovation in them.

From the practical aspect it is important to provide future research on corruption in Russia. I could suggest the research trajectory to focus more on smaller companies operating in Russia. The lack of critical resources such as financial or administrative can be crucial for the existence and development of innovations. The burden of corruption can be an overwhelming obstacle for such firms. However, it might be that smaller firms are more flexible and less bureaucratic that could have a positive effect.

Further research suggestions could also include the discovered obstacle of the lack of proper legislation in the field of innovations. In this way, it might be interesting to discover how companies overcome such difficulties in order to mitigate the risks connected to the protection of intellectual property and introduction of new innovations to the market. In addition to this, most of the research focuses on the final effects of corruption while research in the area of real-life corruption features are limited.

Appendix A. Interview template

1. Tell a little about the department that is in charge of innovations. What are your main functions and job responsibilities?
2. What is the process of innovations in your company? (how are they implemented?)
3. Which step of innovation implementation is the most problematic (the easiest one)? Why?
4. What do you think are the main obstacles in implementing innovations in your company?
5. Does corruption have any bearing on the planning and development of your innovative products (or services)? If so, how do you manage it?
6. What is corruption in your personal opinion?
7. How often do you face corruption issues at work?
8. Do you think corruption is a threat or an opportunity for the company?
9. [question if needed] Is it possible to overcome the aforementioned difficulties?

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