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SHAPING ECOSYSTEM FOR MACRO TALENT MANAGEMENT: THE CASE OF RUSSIA

Master's Thesis by the 2nd year student
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ЗАЯВЛЕНИЕ О САМОСТОЯТЕЛЬНОМ ХАРАКТЕРЕ ВЫПОЛНЕНИЯ ВЫПУСКНОЙ КВАЛИФИКАЦИОННОЙ РАБОТЫ

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АННОТАЦИЯ

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Название ВКР	Формирование экосистемы для системы управления талантами на макроуровне: Изучение России
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Научный руководитель	Марина Олеговна Латуха
Описание цели, задач и основных результатов	Целью данного исследования является определение основных элементов и характеристик экосистемы управления талантами на макроуровне (МТМ), которые могут формировать конкурентные преимущества для фирмы и государства. На основе качественного метода анализа собранных данных были предложены модель экосистемы управления талантами на макроуровне с учетом российского контекста, а также рекомендации по ее использованию.
Ключевые слова	Экосистема, управление талантами на макроуровне, российский контекст, таланты

ABSTRACT

Master Student's Name:	Daria Pavlova
Master Thesis Title:	Shaping Ecosystem for Macro Talent Management: the Case of Russia
Educational Program	38.04.02 Management
Year	2021
Academic Advisor's Name	Marina O. Latukha
Description of the goal, tasks and main results	The aim of this research is to identify the main elements and characteristics of the macro-level talent management (MTM) ecosystem that form competitive advantages for the firm and the state. Based on a qualitative method for analyzing the collected data, a model of a macro-level talent management ecosystem was proposed, considering the Russian context, as well as recommendations for its use.
Keywords	Ecosystem, Macro talent management, Russian context, talents

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Introduction

The emerging economy's transition to the sixth technological mode, the slowdown in economic growth are forcing companies to look for new ways to fight for their business in the market, to act in the face of uncertainty and come up with new business models. Lack of attention to staff can lead to brain drain not only within a particular company, but also subsequently within the whole country. Starting from school, a person develops his/her intellectual capital, which subsequently can become a competitive advantage. Secondary educational institutions, universities continue the development of each person. Recently, companies have also begun to pay great attention to the training and development of their staff. All this speaks of the interest of modern actors, both on the part of the state and in business, in developing high-quality ways to work with talents and in creating possible tools that will help create these ways.

Talent management (TM) is important concept, that helps the companies to win "the war for talents" (Michaels, et al., 2001), while motivating employees to retain and develop. In this case, it is more applicable to use notion global talent management (GTM) that includes organizational activities for the purpose of attracting, selecting, developing, and retaining the best employees in the most strategic roles on a global scale (Scullion, et al., 2020). Within the framework of this study, the concept of Macro talent management (MTM), which is an important part of GTM, will be studied in more detail, since it has more relevance and application opportunities for the research.

MTM is a concept that includes various systems and forces that shape the practice of attracting, retention and developing talent at various levels (King, et al., 2019) The aim of MTM is to create a new conceptual and practical tool to examine policies, programs and practices that are developed by a specific country's governmental and nongovernmental organizations and to enhance the quality of talent in that country for promoting that country's prosperity and competitiveness in the global marketplace.

The concept of ecosystems in management began to develop back in the last century, but these studies are acquiring real value right now with the awareness of practical applicability. Ecosystems are increasingly popular direction in the study of many business-related disciplines. One of the main reasons is that it provides a tool for creation of unique conditions for creating competitive advantages, both at the level of states and at the level of firms.

Thus, we see that the combination of MTM and the concept of ecosystems can go very organically, as both theories seek to target the main elements that need to be addressed in order to build the right workflows that can be an advantage for governments and firms in their "the war for talents".

The Russian context in this regard was also not chosen by chance. First, limited researches on TM related topics for Russian context exist, since this direction is just beginning to develop. This will help to contribute to the study of the Russian HR direction in business science. Secondly, the Russian context, which includes elements of both the Western and the Eastern world, gives a chance to find its uniqueness and strong points for potential development.

The combination of all factors about the potential compatibility of MTM and ecosystem theories, the unique Russian context, as well as the ability to create through a theoretical framework a potential practical tool for working with talent and correcting mistakes in advance while understanding certain elements as red flags and their interdependencies makes this research relevant and interesting for studying.

Subject of this research is MTM ecosystem.

Object of this research is MTM ecosystem element.

The research aim was formulated: it is to identify main elements and characteristics for macro talent management (MTM) ecosystem that may shape competitive advantages for firm and states.

Thus, the main objectives of this paper were formulated:

1) To conduct preliminary desk research to obtain primary data on potential elements of the ecosystem for testing and unique characteristics of Russian country-specific context;
2) To collect data with semi-structured in-depth interviews with experienced HR specialists from different regions and company types in order to identify main elements, their interconnections and main Russian country-specific characteristics;
3) To analyze the obtained data using the qualitative methods;
4) To provide recommendations based on collected and analyzed data for practical applications both in governmental bodies and companies.

This research paper is divided into 4 main chapters. At the beginning, the main theoretical concepts will be considered that may help to determine the preliminary elements of the ecosystem for MTM and get an understanding of Russian country-specific context. This will define the main research gap and address questions that will help uncover this gap. Then the research methodology will be proposed, which will help to correctly collect and process the obtained data to obtain the maximum effect. In the empirical part, the main findings will be reviewed, based on which ideas will be generalized and the main research findings will be derived. At the end, will draw the main conclusions, identify the main managerial and theoretical implications, limitations and further opportunities for this research.

1.1 The concept of ecosystems: value for Global Talent Management practices

The concept of ecosystem is familiar to us all from the world of biology, where it represents a sustainable community of plants, animals and microorganisms in constant interaction with the components of the atmosphere, hydrosphere and lithosphere (Boerema, et al., 2017). The world in which we live has always interested scientists. Therefore, it is not surprising that this concept, with the understanding of the importance of not only the biological component, began to develop in the humanities.

With the development of mankind, there was an increase in consumed resources, as well as our negative impact on nature as a whole. There was an understanding of the limitedness of existing resources and an awareness of the boundaries of the violation of the fragile natural balance. The concept of ecosystem-based management (EBM) has arisen due to growing concerns about the environmental impacts associated with resource management in the late twentieth century (Steenberg, et al., 2019). Several decades later, the concept of ecosystem approach (EA) emerged, which became one of the main paradigms and reference for the implementation of biodiversity policies after the United Nations Conference on Environment and Development in 1992 in Rio de Janeiro and the emergence of the Convention on Biological Diversity (CBD). Around the same time, another additional management concept is being formed - an ecosystem-based approach (EBA) (Kirkfeldt, 2019).

Ecosystems are inherently very complex systems, which thus make the decision-making process in scientific or managerial development extremely slow. Thus, it is worth noting that research in this area has begun and developed without regular exchanges of views and consultations with stakeholders, managers, policy-makers and other important actors, which can lead to a discrepancy between the research goals and social objectives (Francis, et al., 2018; Harvey, et al., 2017). Moreover, the very integration of new concepts related to ecosystems into management systems may be seen as too risky or outside the scope of management systems and management structures.

Since the development of biological theories about ecosystems and an understanding of the place and role of various companies in these processes, the scientific community, including the humanitarian one, begins to offer its concepts, taking as a basis and developing the ideas of their colleagues (Harvey, et al., 2020). The study of ecosystems is very important for the development and establishment of processes at various levels. This concept helps to determine the relationship between the elements of the system and understand how they create value.

Gradually came the realization that modern person lives in a reality – ecosystem, which consists of many different factors. Thus, most of the current research in this area focuses on identifying these factors that are essential for the formation and development of a particular

ecosystem. Within the framework of this study, the classification of ecosystems according to the studied object and individual characteristics will be used.

In early 1990s, American scholar James F. Moore created the concept of strategic planning of the business ecosystem, which is now especially widely used in the high-tech community (Moore, 2016). The author emphasizes the idea that companies cannot be considered as members of one particular industry. The bigger picture needs to be presented - to see it as part of an ecosystem in which customer needs are met through cooperative and competitive interactions between companies from different sectors. Thus, an individual company and its success depends not only on its own efforts, but also on relationships with other companies within the network (Moore, 1993).

Developing his thought further, the author added other connections - namely, the role of developing interaction between individuals and organizations in the activities of companies and the ecosystem itself (Moore, 1996).

Thus, its essence is that economic objects: enterprises, industries, intersectoral and territorial- production complexes, new-fangled "clusters" and so on - are considered as a variety of communities (cenoses), of which the biocenoses are most known to the general public, forming together with the environment ecosystems. Cenology is broader: it talks about physicochemical, biological, technical, informational, social communities. Co-evolution is a key feature of the ecosystem (Arenal, et al, 2020). After the emergence of this concept, it began to be actively applied in the field of strategic management, including the development of a conceptual framework for assessing the company's position.

It is worth noting that business ecosystems do not have a direct consequence of ecosystem implementation. The main argument for this thesis is that companies participating in an ecosystem are not necessarily in the same business ecosystem.

In 2010, Powell and his colleagues identified several central mechanisms for ecosystem development. They referred to them:

1) A diversity of organizational forms. Differences in organizational forms lead to the inclusion of groups of organizations in different parts of value creation, and this, in turn, increases the adaptive capacity of the ecosystem (Baptista, 1998);
2) The presence of an anchor tenant. This feature helps to “Increase access to downstream connections and field formation and therefore actively stimulates economic growth” (Agrawal & Cockburn, 2003). Such anchor tenants include, for example, local universities, RPOs, how such institutions conduct their research and do not directly compete with organizations;

3) The mechanism of cross-realm transposition. This mechanism is a form of "internetworking" that transfers ideas and models from one network of organizational forms to others (Wright, et al., 2006).

For individual companies, from the point of view of strategic management, business ecosystems are one of the sources of competitive advantages. The concept of this ecosystem refers us to the ideas of value networks (Normann & Ramirez, 1993) in view of the fact that a group of individual companies has the ability to combine effort and tools to create a certain value at the same time.

Moreover, Clarysse B. et al. identifies 3 more factors of differences between ecosystem data:

1) Activities (e.g. generation of new knowledge or creating value for customers etc.);
2) Density (e.g. connected in a dense, geographically grouped network, or represented by value networks that can be distributed around the world etc.);
3) Central object. (university or PRO, or large companies etc.).

Thus, the policy-making process in the field of supporting ecosystems of different types must be specially adapted.

The business ecosystem concept has later influenced the emergence of several other concepts. One of these is an idea of "Innovation ecosystem". It should be noted that the recognition of this theory is associated with the concepts of "systems of innovation" or "innovation systems" of the late 1980s and 1990s (Lundvall, 1988).

The main difference between business and innovation ecosystems appears to be the lack of demand (customer / user) in Innovation (Clarysse, et al., 2014). Scholars, studying this direction, proposed various institutional models for describing and characterizing innovation processes at different levels, both at the national and at the regional.

Both of these models focus on structural aspects. Thus, they point to the interaction and connections between the participants, the importance of agglomerations and geographic location for promoting innovation and the accompanying commercialization. Although there are certain drawbacks - the underestimation of the dynamics of innovation and the lack of explanation of the relationship between innovators, their innovative activities and the overall environment (Arenal, et al, 2020).

To overcome these problems, an innovation ecosystem approach appears. This concept is interesting to study from the point of view of the policy-making process of countries in the field of investment in regional innovation systems, which contributes to the creation of innovative start-ups around knowledge centers (Engel & Del Palacio, 2011). An example of such action is Silicon Valley in the United States.

With an understanding of the importance of knowledge centers, it is necessary to turn to another ecosystem - “Knowledge ecosystem” (Clarysse et al., 2014) that is focused on the differences between knowledge and the business ecosystem. Key focus here on the university and the dense network of surrounding companies. They are usually geographically clustered / localized (Bathelt & Cohendet, 2014), and along with the key player they are focused on generating knowledge. Creating such a dense ecosystem of knowledge remains the best guarantee to stimulate a high degree of innovation in this area. Examples include the close proximity of universities and the development of startup hubs. This close collaboration between different institutions, such as government research organizations, R&D, universities and colleges, creates the conditions and environment for faster diffusion of innovation, labor mobility and collective learning (Phelps, et al., 2012).

One topic in academic papers written on knowledge ecosystems is exploring the benefits of geographic location for organizations in technology clusters (Jaffe, 1986). In particular, the literature addresses the issue of “reducing the cost of moving people and ideas” (Clark, et al., 2000), as well as economies of scale through the use of collective resources. All this makes isolated organizations less competitive (Agrawal & Cockburn, 2002).

The fourth type of ecosystems is called the “Entrepreneurial ecosystem”. It focuses on entrepreneurs or entrepreneurial teams, which has the main goal of economic well-being and prosperity. Entrepreneurial ecosystem is a combination of various stakeholders (e.g. individuals, entrepreneurial teams, firms and support organizations). The ecosystem emerges through successful interaction between actors at the national and individual levels, which is the intersection of national culture, political and legal systems, and entrepreneurial knowledge (Nambisan and Baron, 2013) along with their individuality and behavior.

Based on these notions Scaringella & Radziwon (2018) proposed a research framework based on the comparison between key invariants from ecosystem and territorial approaches and links them "under the complex evolutionary system umbrella".

Social-Ecological Systems (SES) framework constitutes a coherent system of biophysical and social factors that regularly interact in a resilient, sustained manner and organizational scales, which may be hierarchically linked. In a nutshell, it is a concept that describes interaction of two subsystems- biological and social-economic one (Colding, et al., 2019).

With the complexity of the processes that take place in the organization, ideas about the perception of personnel as an ecosystem of people who cooperate and work together to increase productivity in difficult conditions have arisen. The complexity of this ecosystem lies in its multifactorial nature: personnel reserve, personnel consisting of different labor relations and cultures. All of these issues can increase the importance of alignment (Snell, et al., 2019).

The ecosystem here is a connecting element for understanding the relationship between psychological contracts, careers and many stakeholders. As part of their interaction, processes are taking place that create career structures, and links between actors are created and broken. Risk brings uncertainty about the likelihood of achieving career and personal goals, which occur differently depending on the sustainability of the environment. Understanding current career dynamics requires attention to attitudes and relationships in wider ecosystems in which people, organizations, and community institutions are involved (Baruch, et al., 2019).

Thus, it is worth noting that at present the concept of ecosystem has a very broad meaning. Starting as an ordinary term in biology, it began to turn into a widely used concept in the sciences related to economics and strategic management. The main definitions, elements, models used and authors of the above ecosystems can be briefly observed in Table 1.

Ecosystem	Definition	Paradigm	Actors	Authors
Business ecosystem	A business ecosystem- is the network of organizations- including suppliers, distributors, customers, competitors, government agencies, and so on—involved in the delivery of a specific product or service through both competition and cooperation. The idea is that each entity in the ecosystem affects and is affected by the others, creating a constantly evolving relationship in which each entity must be flexible and	-Methodology of business ecosystem network analysis (MOBENA)	Producer, supplier, orchestrator, complementor, competitors, government agencies, customer, geographic industry clusters, company partnership networks, marketplaces	Moore (1993, 1996, 2016), Battistella, et al (2013).

	adaptable in order to survive as in a biological ecosystem.			
Innovation ecosystem	Innovation ecosystem - is the evolving set of actors, activities, artifacts, institutions and relations, including complementary and substitute relations, that are important for the innovative performance of an actor or a population of actors.	-Triple helix model	Governments (both central and local), Industry, Universities and Research centres. Global Entity, Higher Level Entities, Locally interacting agents.	Arenal, et al (2020) Muthukannan, et al (2020)
Knowledge ecosystem	Knowledge ecosystem- is an approach to knowledge management aimed at fostering interactions between participants in an exchange, simplifying decision-making and stimulating innovation through the evolution of collaboration between agents.	-Formwork of national knowledge ecosystem	Universities, pubic research institute, state laboratories, innovative entrepreneurs, knowledge-based enterprises, knowledge government agencies, capitalist venture, civil knowledge society and media	Entezari (2019), Clarysse, et al., (2014), Bathelt & Cohendet (2014), Phelps, et al. (2012), Jaffe (1986)

Entrepreneurship ecosystem	Entrepreneurship ecosystem- is an ecosystem that focuses on entrepreneurs or entrepreneurial teams, which has the main goal of economic well-being and prosperity.	-Complex adaptive system (CAS) theory	Governments and related institutions and theirs policies, companies, Universities and research institutions Inclusive culture and diverse infrastructure	Scaringella & Radziwon (2018), Nambisan & Baron (2013)
Social-Ecological ecosystem	Social-Ecological ecosystem – is an ecosystem constituting a coherent system of biophysical and social factors that regularly interact in a resilient, sustained manner and organisational scales, which may be hierarchically linked.	-Conceptual framework of social-ecological systems	Governments and related institutions and theirs policies	Fukamachi (2020). Colding & Barthel (2019)

Table 1. Ecosystems overview

Thus, it can be noted that ecosystems, as complex concepts, include many actors and frameworks. In particular, the role of both human capital and talents in these processes is recognized. However, an association of the notion of ecosystems with talent management is still a relatively new direction in this field. That is why, within the framework of this work, it will be

interesting to look at the conceptualization of the MTM formation by developing an ecosystem model that combines different factors.

Within the framework of the existing discourse, it is necessary to conduct additional research in the field of influence (both positive and negative) of various interregional and intercountry elements, such as, for example, geographical features of the area, social situation, sector, the phase of company development, etc.

The next part will explore in detail the concept of global talent management (GTM), as a forerunner to the MTM concept, at various levels.

1.2 Defining a concept of global talent management (GTM): features and effects for different levels of application

The current level of development of literature in the field of TM has several different directions for study: firm-level TM and GTM.

The foundation for the concept of global talent management was laid even before the 19th century in various fields of knowledge: art, sports, early education, etc. (Tarique & Schuler, 2010). However, only by the 1990s. after the emergence of the term "war for talent", coined by the McKinsey consultancy team, interest in the idea rekindled (Michaels, et al., 2001). Governments across the world have engaged in this struggle through the development of various national policies aimed, for example, at promoting immigration, investing in education and human development of their citizens ("Home Growing") (Oettl & Agrawal, 2008; Ragazzi, 2014; Saxenian, 2005; Tung, 2008; Zweig, 2006). Such an active participation of various governmental and non-governmental organizations in the talent management process forms its globality, as it goes beyond one organization and its activities in human resource management and draws attention to the complexity of the environment in which organizations develop their talent management systems and where people make career choices (Khilji, et al., 2015).

GTM notion grew out of the HRM concept, making it more specific and narrowly focused (Latukha, 2015). Until now, the authors offer their interpretations of this phenomena, placing different accents (Malik, et al., 2019): starting with re-inventing HRM, continuity of human resources, human resource development based on current needs; exclusive and inclusive approaches (Thunnissen et al., 2013); and ending with a broader notion of integration.

GTM includes ideas for identifying, educating, and supporting high-potential employees (HiPo) on the global scale. HiPo employees, in this case, are defined as distinctively talented individuals who are valuable and unique to the organization (Gelens, et al., 2013). HRM, in turn, covers a wider list of actors, including, in addition to employees, investors, customers, suppliers, etc.

Global talent and talent management concepts are based largely on human capital and focus on who is considered talented (Al Ariss, et al., 2014). For example, Tarique and Schuler (2010) describe GTM as a practice "that attracts, develops and retains people with high levels of human capital". Other views designate talent as "shared" or "unique", taking for granted the composition of the talent and how that composition is obtained (Crane, et al., 2019).

Major works written on the subject of GTM fall into two broad categories:

1) Focus on the micro level. The bulk of the literature here focuses on celebrities and individual achievement and performance (Aguinis & O'Boyle, 2014; Call, et al., 2015);
2) Focus on the macro level. Scientists in this area study the exogenous and endogenous drivers of GTM systems and processes (Tarique & Schuler, 2010) or the subroutines and GTM systems themselves (Beamond, et al., 2016).

However, we can identify several levels of GTM application: individual and organizational (Morris, et al., 2016). In the main works on the topic, there is no analysis of the impact of GTM at several levels and considered variety of factors that define ecosystems.

1.2.1 Individual level of global talent management

Although GTM systems cover different levels, in the literature on the individual level, these practices are embodied in the form of idiosyncratic perceptions (for example, Tremblay, et al., 2010).

However, individuals who have their own experiences are all included in a general context that provides opportunities for reflection, to the extent that this context can enhance or overshadow each person's own perception of HR practice (Dello Russo, et al., 2018). Some research in this area has focused on the behavior of individuals in the framework of their interactions with each other and is related to the consideration of behavior associated with initiative for change and improved work regime, expanding the boundaries of their contribution to the process.

It is worth noting that human capital at the individual level is to some extent a combination of local knowledge and firm experience.

Individual mobility and their interaction with organizations and societies provide greater access to knowledge and reduce the need to create this knowledge. Moreover, individuals gain diverse experiences and serve as a source for organizations and societies (Khilji, et al., 2015). There are several approaches to the GTM- adoption of global best practices and transfer home TM practices abroad (Froese, et al., 2020).

The exchange of experience is a by-product of the knowledge pooling process. For example, effective government repatriation programs provide a framework for a shared understanding that benefits both the firm and individuals (Lazarova & Tarique, 2005).

The scholar Haas (2006) conducted research on expatriates using the cosmopolitan-local classification to examine the level of experience of local employees, categorizing them according to their experience and knowledge base. Thus, both groups can be identified by assessing the international experience and education of employees outside the TNC. It is possible to measure the portfolio of human capital based on the performance indicators of individual individuals, to draw a parallel between wage levels with the market average. This helps to assess what level of value he / she brings to create value.

1.2.2 Global talent management at the organizational level: basic concept and routines

A number of scholars emphasize the importance of integrating human capital on a global scale to execute corporate strategy and generate sustainable performance levels across an MNE's network (Farndale, et al., 2010; Tarique & Schuler, 2010; Tung, 2016).

It is worth noting that scientific papers on GTM are still extremely fragmented, and the level of talent management at the organizational level remains poorly developed (Cascio & Boudreau, 2016). One of the reasons for this is the lack of a common understanding of the definition of GTM. An important limitation in their research on GTM is also highlighted by various authors - the inability to develop concepts about the relationship of this phenomenon to the performance of individual organizations.

A common understanding of the relationship between the GTM concept and firm productivity requires a multi-layered study. Of course, there is a fairly canonical definition of GTM by the Scullion, Collings, & Caligiuri scientists, which sounds like "Global talent management includes all organizational activities for the purpose of attracting, selecting, developing, and retaining the best employees in the most strategic roles (those roles are necessary to achieve organizational strategic priorities) on a global scale. " (Scullion, et al., 2010).

From this definition, new questions arise regarding the adaptation of personnel strategies of enterprises of different cultural contexts to the different and constantly changing conditions of the global world. It should be noted that this is a rather difficult task, since, being the basis of the global context, cultural, linguistic, mental, spatial and temporal differences, combined with the economic, political and social institutions of countries, make GTM a complex concept (Bartlett & Ghoshal, 1989; Kostova, et al., 2016). One of the limitations of GTM at the organizational level is the mismatch between the supply and demand of specific skills.

Similar multi-level studies have periodically emerged within the scientific discourse of some scholars (Hitt et al., 2007; Hox et al., 2017), including in the field of talent management (Collings et al., 2018). The latter argue that this approach can be used to coordinate the use of a firm's talent at several levels - both at the organizational level and at the individual level.

Thus, even in the scientific works of the mid-1990s, the central task of GTM, among other things, becomes a large differentiation of personnel systems. This phenomenon, while accepting the limitations of simplistic understanding on human capital investment, calls into question the value of a single "optimal HR architecture" for managing all employees (Lepak & Snell, 1999).

According to research by Collings, Mellahi & Cascio (2018), GTM can be determined using several steps:

1) Determining on a systematic basis the key positions that create a differently sustainable concrete advantage of the firm on a global level;
2) Processes of developing a talent pool from employees with high potential and efficiency reflecting the global context;
3) Creation and development of differentiated architecture of personnel management.

Another important concept is Dynamic Capabilities. According to Helfat, it is "the capacity of organization to purposefully create, extend, or modify its resource base" (Helfat et al., 2007). This means that the object (firm) has the ability to respond to the rapidly changing conditions of the global world by including, creating and reconfiguring internal and possible external assets.

It is worth noting that within the global context, two key elements of dynamic capabilities are involved: ensuring global consistency, considering the country-specific context, and the ability to adapt, integrate and reconfigure internal and external resources in accordance with the opportunities of the global market (Griffith & Harvey, 2001; Teece et al., 1997). An important feature of dynamic capabilities is the prospectively emphasized value of human capital, which can be much higher than its present value (Lepak et al., 2011).

An important element in understanding GTM is the concept of routines. Routines are commonly defined as "repetitive, recognizable patterns of interdependent actions performed by multiple actors" (Feldman & Pentland, 2003, p. 95).

Routines in this regard help organizations to direct their activities and thereby increase efficiency. For example, Collings, Mellahi & Cascio (2018). highlight in their article three routines that become central to MNEs in their ability to implement the GTM strategy:

Identification of pivotal positions. Such positions are determined in the company by measuring the degree of importance for achieving the overall strategy, as well as determining the place and role in it for achieving the final result. It should be noted that these positions provide a focus not only on the current state of affairs, but also on those that are expected to be in the future (Cascio, et al., 2016), thereby emphasizing the dynamism of this process and the need for constant review and reassessment of strategic priorities. Thus, thanks to such identification, the organization can ensure that the processes of human and social resources are properly configured,

as well as, given the unpredictability of business conditions in a global context, give a certain flexibility (Teece et al., 1997).

The development of global talent pools. Such a pool includes employees with high labor productivity and potential. Globality in this context underlines the strategic orientation of MNEs. This routine, according to Buron-Jones & Spender (2011), "mirrors a shifting emphasis on "flow" or "process" notions of human capital, as opposed to the more traditional "static" or "stock" perspective of human capital". Thus, due to the constantly changing environment, static conceptualizations of human capital requirements are unnecessary (Cascio, et al., 2017). This has raised the issue of risk management in the discourse of global talent management systems as a priority (Cascio & Boudreau, 2014). Thus, development in the broader context of an organization (performing a number of roles) rather than specific requirements for a particular role is a trend in the development of global talent pools (Collings & Mellahi, 2009). The formation of a globally diverse talent pool takes place by including both the human capital of the parent company and human capital, considering the specifics of local conditions. These processes are important in the global process, as they can help develop the skills necessary for effective work (Chung, et al., 2015).

The development of a differentiated HR architecture. The relationship between quality HR practices and overall performance has been confirmed by a number of researchers (Jiang, et al., 2012). These high-performance work systems (HPWS) include systems that include all or more of the following: flexible resource allocation, rigorous and selective selection, extensive training and development, merit-based skill development and assessment, competitive remuneration, and extensive benefits (Takeuchi, et al., 2007). As an organizational routine, it provides a means to tune human capital to creatively respond to rapidly changing business conditions, which are critical to organizational performance (Teece et al., 1997).

However, it is worth noting that a high level of human capital in an organization by itself cannot be sufficient to ensure a competitive advantage. Well-established organizational processes in this area (for example, existing good practice), in combination with human resources, in turn, help to develop and maintain a competitive advantage. Thus, talent pool management should be a system that is part of the broader deployment of an organization's resources.

The concept of differentiation (including in relation to the architecture of personnel management) was formed by scientists on the basis that "better management of the main workforce is likely to have the greatest impact on value creation and sustainable competitive advantage" (Schmidtt, et al., 2017). Thus, an effective personnel management architecture developed can help to improve the efficiency of an organization by increasing the KSAO in the talent pool, leveling the performance of employees in critical positions, as well as their motivation to work and

organizational commitment (Collings & Mellahi, 2009). The primary goal of a differentiated HR architecture, in turn, is to develop the appropriate level of each type of human capital (both from the parent company and from local residents) in accordance with the strategy of the organization.

These routines are inherently perceived as three GTM subroutines and seem to be interrelated, since the implementation of one routine depends on the implementation of the previous one (Turner, 2014). From a conceptual point of view, the procedures for key positions, global talent pools, and a differentiated workforce architecture are based on the idea of workforce differentiation (Becker & Huselid, 2011).

Enterprises and firms (whether singular- or multi-national in their strategy and operation) exist as systems that are embedded in the regional and national context. Multinational corporations operate in different national contexts, each with its own macro-talent contexts (King, et al., 2019). Thus, we understand the connection with the next level - the macro level, which we will look at in the next part.

1.3 Macro view in global talent management: macro talent management approach

The importance of GTM as a mechanism for creating value for a company through human capital management was emphasized more than once. The economic, political, regulatory, cultural and technological environment created at the macro level directly or indirectly affects the ability of an organization to attract, develop and retain the talent it needs to grow its business and gain competitive advantage (King, et al., 2019). Still, it is worth noting that there are other factors that influence this process. So, firms need to not only manage talent within an internal context, but also consider the broader external context that provides insight into how talents are created, developed and managed. External influences at the macro level are an example of the basic elements of MTM.

The existing approach in the scientific community with a greater focus on the individual and organizational levels leads to the fact that the GTM concept in this regard does not often focus on the role of countries and their policies in these processes. Thus, it overlooks some aspects of the macro environment that have an impact on talent management processes, including at the individual and organizational levels. However, there are some scholarly works that compares perceptions of how an organization's talent management systems work in different national contexts (Al Ariss, et al., 2014). These papers still ignore governmental and non-governmental GTM efforts, although they consider different national contexts.

There are a number of scholars who have done research on the macro-national aspect of global talent management (Cooke, et al., 2014). It is worth paying attention, for example, to the positive practices of states in the world, which include policies that are friendly to immigrants (Australia, Canada, Germany, Great Britain, USA), attracting a qualified diaspora (China, India),

making large investments in the development of their own talents by development of education systems and social benefits (Singapore). It is also interesting here to stimulate the economic growth of the state through the modernization of local and innovative potentials (Ragazzi, 2014).

In order for GTM research at the macro level to be the most complete scholars began to describe in the model such factors as a competitive global environment (Farndale, et al., 2010), changing demographics (Khilji & Keilson, 2014), growth of emerging economies and international mobility (Collings, 2014; Khilji & Keilson, 2014), supply-demand gap or scarcity talents (Aiman-Smith et al., 2006; McDonnell, 2011) and the need for global integration of processes and systems (Collings, 2014).

Thus, considering the peculiarities of the environment in the study of GTM at the macro level, it is necessary to apply an interdisciplinary approach. For the analysis, data are used through research by scientists of the following disciplines: sociology, economics, international business, geography, etc.

One of the interesting points of view in this area is the GTM approach, based on inter-level interaction under the influence of one or more external macrocontexts (King, et al., 2019). By analyzing the use of strategic advantage and mitigating the risks in talent management caused by deviations in the embedded system, it is possible to determine the effectiveness of GTM practices.

It is the talent acquisition and development actions taken by various government and non-government organizations that make GTM truly global. These steps lead to the fact that, within this level, attention is paid to the complexity of the environment within which organizations develop their talent management practices and individuals make choices of career paths and paths. The elements of the environment that facilitate the activities of organizations include the interstate flow of talent, the mobility of the diaspora, and government policies to attract / grow / develop / retain talent at the national level (Lanvin & Evans, 2013; Leaders: The magic of diasporas, 2011; Ragazzi, 2014).

Thus, now it is important to distinguish why in this work we used different concepts - TM, GTM, MTM. Rather, TM and GTM refer to practices that occur at the firm or company level. Thus, TM approach refers to local local firms, and GTM refers to multinational companies (while combining the country context and corporate culture). The MTM concept, in turn, is more of a country nature, but there may be elements of the infrastructure of firms. MTM is a concept that includes various elements that exist in a specific context. For this study, it is important to mention all three concepts, however, the focus of the future will be on MTM, since this concept is most fully and accurately suited to the formation of an ecosystem (with its elements, relationships and context).

That is why, within the framework of this study, MTM is an important topic that is directly related to the study and practice of GTM, as well as the consequences for several levels: person, firm and country (Khilji et al., 2015). Thus, MTM, as one of the elements of GTM, is necessary in business to achieve the expected competitive advantage and value through talent. It is worth noting that there is a limited number of papers that describe how the organizing arrangements and governance of MTM is devised, and how these challenges can be viewed collectively. Most authors turn to the MTM concept to fully understand the previously described GTM phenomenon (Abeuova & Muratbekova-Touron, 2019; Al Ariss et al., 2014; Khilji et al., 2015; Marmenout & Lirio, 2014).

Literature on GTM and MTM is mainly studied in developed countries, which creates a bias towards non-liberal discourse in works published in emerging markets. However, it is of course imperative that the field of talent management go beyond the individual level and become more global. This is necessary to consider the external context, which includes various obstacles - regulatory norms and global competition (Schuler et al., 2019, p. 3). Thus, GTM has a focus on multinational corporations, markets and capital gains, but not on the relationship between human, economic and social aspects of development. Thereby scholars demonstrate about other MTM partners.

Now we can logically move on to the definition of MTM. MTM is a concept that "incorporates activities aimed at attracting, mobilizing, developing, and retaining top talent in organizations" (Metcalfe, et al. 2020).

More broadly, MTMs are factors (e.g., demographic, economic, educational, social and political) in countries that affect the quality and quantity of talent within and between regions (Schuler and Khilji, 2016). Thus, MTM addresses the many interrelated and interactive factors operating in the context of a given country that directly or indirectly affect the availability, quality and mobility of people, skills and knowledge.

Scientists have identified a general model that describes MTM. It is worth noting that the importance of contextual dynamics is also emphasized in emerging markets (Metcalfe, et al. 2020).

The model includes several highlights (Collings, et al, 2018):

1) «Context and environment», which consists of state policy, national culture, the country's competitiveness in the international arena, educational institution and NGOs;
2) «TM practices», which include a set of measures for planning, attracting, developing and retaining talent;
3) «Outcomes», which mainly include performance issues such as performance and country rankings, competitiveness, etc. (Sparrow, et al., 2019).

It should be noted that the MTM context and environment, as one of the three core components of the MTM framework, consists of four factors:

1) A comprehensive human development agenda (e.g. government policies and various non-governmental activities to attract, mobilize, develop and retain national talent for innovation and competitiveness);
2) Global mobility;
3) Brain circulation, which includes diaspora mobility;
4) National culture and institutions of the country.

Of course, it's worth noting that this model has several disadvantages. First, it focuses on the assumption that MTM is mainly about developing talent management at the firm level. Although the multilevel processes and relationships between various elements of the system at the global level have already been proven. Secondly, the "environment" includes both "conceptual ideas" and "subjects", but they should be separated so that it is possible to explain separately from the multitude of actors. Third, “results” are limited by the fact that the TM practices of multinational companies are governed by neoliberal development and focus on performance metrics.

The interaction between micro and macro systems creates changes in a dynamic integrated system and can cause changes in any of their components (Vaiman, et al., 2018). An illustration of this phenomenon can be the actions of the firm, such as partnerships between industry and education, which affect both internal results of the firm, for example, the development of talents, talents, and external macro results (for example, the aggregate regional supply of talent), which in turn time affects the results of micro-level talent (for example, the processes of attraction and retention).

Thus, one can see the complexity of the multi-level concept of MTM, which at the same time can be interconnected with the elements of different levels of this system. After a more detailed study, it becomes clear that within the framework of each level considered, the actors of the previously discussed ecosystems exist and have a strong influence on these processes. For example, elements of the ecosystem such as educational institutions influence the formation of an individual (individual level), the development of practices within enterprises (organization level) and the formation of educational policy (at the macro level).

For further analysis, it is considered necessary to outline the main elements that could be potentially important for the development of the MTM ecosystem.

1.4 Macro Talent Management ecosystem: definition and concept review

In the previous paragraphs, we covered the concept of ecosystems and introduced the basic concepts related to GTM and MTM. It is obvious that the most recent theories tend to be very global, comprehensive, and broad. An ecosystem perspective can help us study the processes of alignment, not just its static features. Two levels of analysis will be used for the analysis: the country and firm level.

One of the most important elements of globalization is international labor mobility. It is this phenomenon that has contributed to increased competition not only for innovation and technological excellence of countries, but also for talent. The international mobility and expatriation of employees plays a vital role in MNCs' global operations (De Cieri, et al., 2016).

The knowledge economy is becoming one of the priority areas, which requires more highly qualified personnel. Due to a number of reasons associated with demographic and social problems and prejudices, some countries can no longer rely solely on their own strength. Typical illustrations of this thesis can be, for example, the aging of the population, lack of fashion for certain professions or insufficient funding and development of some scientific directions from the state, etc.

At the same time, in the context of developing countries, empirical findings on the relationship between immigration and innovation are still ambiguous. Due to the growing number of company movements, as well as demographic changes and the increasing outflow of talent to developed countries, emerging market countries are faced with a rapidly growing demand for talent that cannot be met due to the lack of available skilled labor (Ewerlin, 2013).

In general, scholars recognize the importance of social capital for MTM in facilitating knowledge transfer and improving coordination between global divisions (Bozkurt & Mohr, 2011). While companies value human and social capital, without a clearer understanding of how these two forms of capital interact, talent managers may not be able to optimize their impact (Crane & Hartwell, 2019).

From the perspective of the resource-based firm (RBV), scholars have argued that the combination of resources within the firm can create unique opportunities. The different stocks and flows of human and social capital can create unique combinations and create valuable opportunities and potential constraints for organizations.

In addition to knowledge sharing, an important element of MTM is also effective interpersonal communication and relationships within the MNE to facilitate the transfer of knowledge between employees in multiple countries (Roghanizad ö Bohns, 2017).

The importance of MTM practices for creating a company's competitive advantage has been repeatedly emphasized. The world around us is changing very quickly and therefore adaptability to these changes is critical to the modern nature of work. Systems based on the Knowledge management approach (for example, the use of fair material and spiritual rewards for the development and retention of talents, teamwork, the free movement of information etc.) help to create the necessary synergy and establish communication channels between labor participants (Shafieian, 2014).

The main components of talent management include the following: leadership techniques, management capabilities, advanced management and systems creation approaches, advanced management techniques, efforts to increase inclusiveness, reward systems, performance appraisal systems, and employee selection criteria (Altindağ, et al., 2018). Changes in environmental factors have forced enterprises to conduct restructuring studies (Erdemir, 2006, p. 30). Modern human resource management has made it possible to define the competencies of managers, as well as their training and development in a way that shapes the future of the organization, guiding and supporting career planning and employee development, in addition to classic HR applications (Özgen et al., 2005, p. 7).

This becomes especially important when considering the current sociological conditions - the aging of the population. It is believed that new talent should be developed among the people in the organization until the people are ready to succeed in their main careers in the organization (Botha et al., 2011). It is worth noting that the talent management process should be built in accordance with the structure, organizational culture of each specific company, as well as on the basis of government laws and regulations of a particular state. Thus, strategic concepts emerge that relate to talented employees.

Closely related to MTM, the concept of employment is also subject to rapid changes due to technological progress (the development of artificial intelligence and machine learning technologies and the resulting processes of outsourcing, automation and the extinction of jobs with "average skills"), which stimulates the evolution of the way people work in general and sparking a new wave of debate over privacy and content; due to environmental factors such as tensions between countries and other geopolitical changes, as well as gender issues (polarization of jobs and wages) and threat of wage stagnation. One of the important components in determining future prospects and strategic planning is tracking and studying trends in the labor market. Thus, wage stagnation can be explained by the increased geographic concentration of firms (especially in local labor markets), which is accompanied by legal elements of legislation, leads to less competition for talent and gives hiring firms more room to maneuver in setting wage levels. High housing costs, family responsibilities, skills, and the costs of finding new opportunities limit the mobility

of workers. Thus, while national labor markets are relatively competitive, recent research shows that there is a high level of firm concentration in the local average labor market, and this matters to a large proportion of people.

Moreover, the reduction of jobs within companies is a consequence of the company's policy of concentrating human resources in its core business, and outsourcing the rest of the auxiliary functions. This put an end to the practice of raising wages for all staff, including non-core workers. Meanwhile, specialized outsourcing providers compete primarily on price, putting downward pressure on wages in these firms.

Modern companies and governments are developing some practices based on MTM that help to stay competitive in the local market:

1) Investments in education, lifelong learning, retraining programs. Developing skills for workers who are less vulnerable to the forces of outsourcing, automation and globalization should help partly ease the general downward pressure on wages. Increasing human capital through training will also increase productivity, which in turn should spur wage growth. Businesses also have a real opportunity to partner with educational institutions to deliver tomorrow's skills training and ensure people are properly prepared for the world of work;
2) Motivate employees to take advantage of flexible work opportunities and geographically dispersed capabilities. This policy also helps employers broaden their pool of candidates and improve their recruitment of talent and jobs;
3) Diversity of the personnel in all its forms. Removing gender-dominated occupations will not only help narrow the gender pay gap, but will also help increase the pool of talent available to employers. Organizations should offer return-to-work schemes for mothers who quit their jobs, helping to encourage labor force participation. As part of this, both governments and businesses should step up programs that encourage women to seek careers in traditionally male-dominated sectors such as technology;

Thus, we have determined the existence of several ecosystems, which consist of many interconnected elements. Now we need to determine which of these elements are the main ones for defining the MTM ecosystem.

Tarique and Schuler (2010) identified ‘‘exogenous drivers’’ of global TM challenges and included globalized talent-migration tendencies, demographic changes, demand – supply gaps, and also defined the systemic role of the legal environment. With the development of society, other exogenous barriers arise.

Schuler, Jackson, and Tarique (2011) have approached the issue from a different angle and identified barriers to TM, which are not primarily ecosystem or environmental factors, but errors and misunderstandings at the firm level. Thus, they highlight the following negative elements: (1)

time dedicated to TM by senior managers, (2) organizational structures, (3) lack of involvement by middle managers, (4) lack of willingness to acknowledge performance variances among employed workers, (5) lack of HR knowledge in how to properly address TM challenges, and (6) the discrepancy between knowledge and action that limits managerial ability to make the right TM.

Such problems (in particular the problem of the lack of a clear institutional framework, as well as issues of localization) are fully felt by multinational corporations, which face double, sometimes opposite, pressures of local adaptation, on the one hand, and global integration, on the other (Kostova & Roth, 2002).

In the article, Sidani and Al Ariss (2014) examines the factors that influence GTM through the lens of particular region. In this case, the authors illustrated the importance of the specifics of the area itself on MTM, for example, the attractiveness of the environment for transnational corporations due to the availability of natural resources, economic attractiveness (wage differentiation, the presence / absence of competition, the presence of customers and a stable market, the absence of a gap between demand and supply for workers) and developed infrastructure.

The framework assumes that the desired outcomes are a consequence of human resource management practices (planning, staffing, training and development, performance appraisal and compensation) that are able to cope with such forces and factors. It's worth noting that organizations that share the same context tend to look more alike and apply similar practices than those that don't. The TM process seems to operate according to two parallel systems, one for local and one for foreign.

Sidani and Al Ariss (2014), as part of their research, found a problem in the study region that local residents (who fit the category of talented employees) may not want (although they have all the data) to cope with high corporate job requirements, as they can always easily find public sector jobs that require much less effort, offer higher market wages and fewer hours of work. Moreover, work in the private sector can in no way compete with the state on the issue of social security.

A correlation was found between cultural stereotypes in the country, expected role models in society and MTM. For example, the well-established social role of a woman - “mother and guardian of the house” hinders the search for a job in this category. Based on the cultural and historical characteristics of countries (for example, by measuring the level of individualism in society or the distance of power), we can draw a conclusion about how the basic remuneration is built in some countries. Thus, performance-oriented pay packages are more widespread in the Organization for Economic Co-operation and Development (OECD), since these countries have

high rates of individualism and low power distances. At the same time, in non-OECD countries, loyalty or corporate social status are key factors in the work environment and professional relationships, with individual pay often more linked to factors such as seniority, senior position or social connections.

However, it is worth noting that TNCs operating in non-OECD countries can be agents of social change by applying new talent management practices. Another interesting conclusion follows from this. The high concentration of TNCs and, as a result, high competition in one large city (most often in the capital) can lead to the creation of a separate world within the state, where the rules and conditions for the implementation of talent management practices will differ from the rest of the country. Thus, the more widespread the headquarters of TNCs in the country, the more favorable conditions are created for the implementation of MTM practices.

It should be noted that this thesis also has a downside. For example, the imposition of "outside" standards in the field of talent management can lead to misunderstanding and rejection from the local population, who are used to working in their own way and want to respect their cultural tenets.

The local vocational education and development landscape in the country also plays a key role for MTM. In more weakly institutionalized developed countries, foreign companies create their own training centers for personnel, as well as provide training opportunities abroad. Al Ariss (2014). highlights the concept of Global Knowledge Management (GKM), which represents a critical opportunity for multinational enterprises (MNEs) to gain and maintain a competitive advantage (Zaied, 2012).

One of the important factors for the development of MTM is migration. This phenomenon contributes to the fact that skilled migrants can be viewed in a much more favorable light as possessing valuable skills to offer to their new national talent pool. Governments should adhere to this enlightened perspective to avoid the loss of this potential source of valuable talent, as well as the associated new jobs and business growth, due to overly restrictive immigration policies. Moreover, migrants often carry productive attitudes, expectations, ambitions and shared values on an emotional level that can greatly contribute to a new national talent pool.

Thus, it can be concluded that the factors that somehow influence the formation of the MTM environment can have both positive and negative effects on this process.

Having made a preliminary analysis of the literature, it is worth noting that the following large groups of factors stand out:

1) Legal (which describe the general level of legality in the country). It can include the indicator Indicators of Regulatory Policy and Governance, Competition Law and Policy

Indicators, Indicators of Employment Protection, FDI Regulatory Restrictiveness Index etc;

2) Cultural (which describe the local environment and how easy or difficult some global change can be for a given society). It includes such indicators as: the level of entrepreneurial leadership and initiative, the role of women in society, the concept of child labor, level of digitalization, level of individualism in society or the distance of power etc;
3) Social-Ecological (which show the universal factors that affect the comfort of living in a particular country) This includes the human rights observance index, policy in the field of migrants, the level of political stability, the state of the environment, Diversity and Inclusion Index, Happiness and Wellbeing index etc.
4) Knowledge-based (which characterize the system's ability to learn and develop talents) These include Knowledge index, Research, development & innovation, the rating of educational institutions, the citation of scientists and publications in scientific journals, the institution of corporate training, the level of education of the population etc.

Based on these groups of factors, the author identified the main potential elements for the MTM ecosystem, which are divided into two streams - the country level and the company level.

Country level elements: government laws, restrictions, policies, programs and activities, demographics, diaspora and returnees, diverse infrastructure, political stability, social and healthcare system, human rights protection, environmental awareness, access to education, network of universities and research institutions.

Firm level elements: Diverse and inclusive culture, innovative entrepreneurs, knowledge-based enterprises, R&D, level of digitalization.

These results correlate well with our understanding of ecosystems existing and described by other scholars, since their constituent parts are almost completely included in the elements that somehow define MTM. To simplify the research, it was decided to combine the two described ecosystems, the Business and Entrepreneurship ecosystem, into one, since their elements are similar and do not require a separate division for MTM.

Moreover, in this case, some clusters can be distinguished. For example, Knowledge and Innovation ecosystems have the greatest connection and influence on each other. Since most often, innovations are the result of the development of knowledge in the learning process.

The other two ecosystems, Business and Social-Ecological, provide the basis for comfort and talent development.

Further, the author shows a preliminary hypothesis about the belonging of these factors to existing ecosystems, as well as their possible relationship and influence on each other (Fig.1).

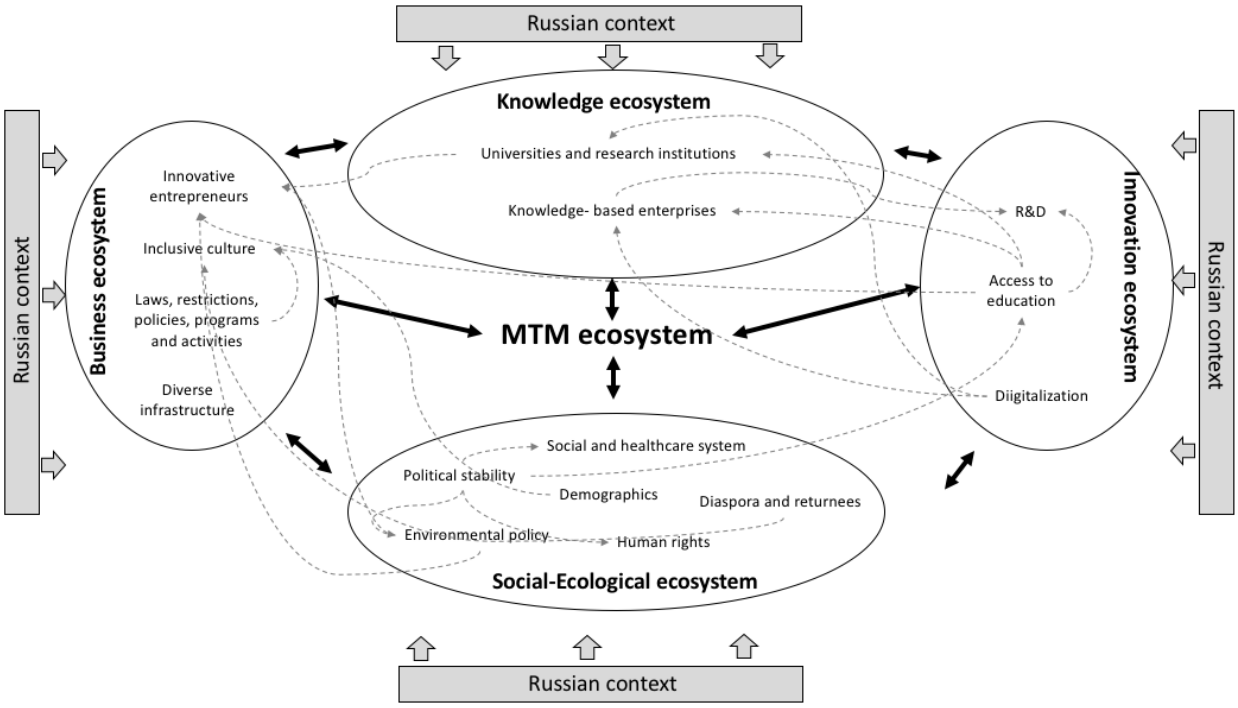

Figure 1. MTM ecosystem

The baseline analysis of the factors that can make up the MTM ecosystem and determine the results of MTM at different levels is extremely extensive. Thus, we can make the following proposition - identified elements that define our ecosystems are integral part of MTM ecosystem.

1.5 Country-specific context: the case of the Russian Federation

Researches on talent management in Russia are still limited, since it has traditionally been popular to research similar practices in developed countries. However, recently, in view of the understanding of the importance of this concept and the emerging demand from business, talent management is gaining popularity among researchers. It is worth noting that the direction of talent management in Russia is only beginning to develop, both from a theoretical point of view and from a practical one. We can observe a shift from purely operational function of personnel management in Russia to more strategic one. This movement has increased an interest in talent management, as well. Inside some Russian companies (especially in the regions), an approach is still used either of a complete absence of an HR department as such, or the concept of HRM inherited from Soviet times, when HR departments perform the role of a "HR department", performing administrative, technical and control functions, and also target older talents (Muratbekova-Touron, et. al., 2018).

In our case, Russia as a member of BRICS is a good object for further analysis. In order to be more precise in further discussion of this topic, it is essential to introduce country-specific context as a part of ecosystem.

Russia is the largest country in the world with a rich history and cultural heritage. It is still one of the most populous countries with almost 146 million inhabitants. Russia's GDP growth in 2019 slowed down a little and amounted to 1.3%, and the country ranks 11th in the world according to this indicator. The unemployment rate fluctuates around 5% (Federal State Statistics Service, 2020). Russia can be very attractive to transnational global companies due to the availability of natural resources, economic attractiveness and developed infrastructure. However, developing and adapting talent management strategies for multinational companies operating there is challenged by the difficulty of adapting to significant cultural, political and economic differences.

The Russian Federation ranks 43rd globally, according to The Global Competitiveness Index 2019, that measures national competitiveness based on a set of institutions, policies and factors that determine the level of productivity (The Global Competitiveness Report, 2019).

In order to speak more specifically about the context, it is necessary to analyze each of the potential elements using the example of Russia.

The importance of preserving talents is being fixed at the state level. For instance, in order to overcome these problems, the Russian Government developed the Concept of long-term socio-economic development, in which ways and means of ensuring in the long term a sustainable increase in the well-being of Russian citizens, national security, dynamic development of the economy, and strengthening of Russia's position in the world community were identified. (Government of the Russian Federation, 2008). Preservation and development of human resources is one of the pillars of sustainable economic development of the country. Successful development of the education market is based on its mutual integration and close interaction with the labor market, makes it highly competitive, since it allows the formation of educational standards and professional requirements for specialists in accordance with the needs of employers.

This problem has found its reflection in some international researches. Hays and Oxford Economics evaluated the tension in the labor market by seven criteria: the flexibility of the education system (how much the training of university graduates meets the requirements of the business); the participation of specialists in the economy (employment and unemployment); flexibility of labor law; relevance of workers' skills to the needs of employers; general pressure on salaries (when candidates have high salary expectations, but employers cannot ignore them because of a lack of personnel); on salaries in industries requiring high qualifications; as well as salaries in positions requiring high qualifications. The lower the index, the less restrictions there are on the labor market. In 2019 Russia scores 6.1. It means that the situation on the market is unfavorable (The Hays Global Skills Index 2020). However, talent mismatch is not the main

problem. This indicator is at the level of developed countries (for example, Germany, China, the Czech Republic, etc.).

In continuation of the theme of retaining talented employees, it is important to refer to the Global Talent Competitiveness Index (GTCI, 2020). It is an annual benchmarking report that measures and ranks countries based on their ability to grow, attract and retain talent.

According to this survey, Russia is the second largest member of the BRICS (Brazil, Russia, India, China and South Africa), whose extensive pool of high-level skills (12th place) contributes to the position in the top quartile when it comes to global knowledge skills (thirty-first). The country also achieved good results in terms of growth (43rd) talent, where it is primarily promoted by a solid system of formal education (27th). The weak regulatory landscape (103rd) impedes Russia's ability to tap into the (65th) talent. However, the biggest problem for the country, as in previous years, is its ability to attract (86th place) talents. A higher external openness (87th place) in relation to foreign investment and property and a higher internal openness (85th place) in relation to minorities and immigrants would greatly change this.

Russia ranks 9th in the world in terms of population, accounting for 1.87 percent of the total global population. Between 2020 and 2021, the Russian population shrank by almost 500 thousand people. As of January 1, 2020, there were more men than women in Russia in all age groups up to 34 years old. Females outnumbered males in each category after that age. With around 6.28 million women and 6.36 million men, the age group 30 to 34 years old was the most well-represented in the country's population. Women's average life expectancy is over four years longer than men's, according to the World Health Organization (Statista, 2021). In Russia, the gender difference was more than ten years. Despite this, the development of talent programs is still biased towards men.

After the collapse of the Soviet Union, Russia became one of the owners of the world's largest diaspora. Faced with open or disguised discrimination, many preferred integration, adaptation to the new, often clearly uncomfortable realities of their countries of residence, and return to their historical homeland. A significant part of compatriots are still in this stage of latent migration and intend to leave them in the event of a sharp deterioration in the situation in the places of their current residence (Alizade, 2019). Since 2006, the All-Russian Congress of Compatriots has been held annually in Russia, that is taking care of the Russian diaspora, "ethnic Russians", the need to protect the rights of the Russian-speaking population, about "a single Russian civilization" and even the "Russian world." However, this does not make the diaspora policy more intelligible (Egorov & Kolesov, 2014).

Political stability in the Russian context has quite interesting characteristics. It is worth noting that Russia has all of the characteristics of a mature democracy, but its political environment

is uncompetitive. Foreign policy is a confusing mix of pro-integration rhetoric and isolationist practice, and the leadership is split between technocrats and military and security officers (Dresen, 2021). According to Political Stability Index, Russia has the latest value from 2019 is -0.54 points, where maximum is 2.5 points and, for comparison, the world average in 2019 based on 194 countries is -0.06 points (The World Bank, 2019). This means that the level of political stability is quite low, although if we compare this indicator with the beginning of the 2000s in Russia, it has almost tripled, which indicates some improvement and work in this direction by the current authorities. However, the current president's long stay in power, as well as some recent opposition activities, have led to the creation of some uncertainty both for foreign potential talents / investors and for domestic ones (Dresen, 2021).

According to the Human Freedom Index (2020), Russia ranks 115th in this indicator, which indicates a fairly low level of human rights observance in the country. Recent events in the country worsen the situation in this area, so over the past 2 years, new restrictive measures have been introduced, for example, on online speeches and a law has been passed that allows isolating the Russian segment of the Internet. The rule outlawing “unwanted” foreign groups continued to suffocate non-governmental organizations (NGOs), while authorities initiated an intimidation campaign against those who broke the law.

The rise in protests related to bans, repressive laws and demonstrative prosecutions has grown significantly, leading to arrests and scandalous trials. Thus, a public campaign “for the freedom of political prisoners” emerged, as a result of which the authorities released several people from prison (Human Rights Watch, 2020).

So, there are rather weak institutions in the country for the protection of human rights, which also affects the process of attracting and retaining talents who want social guarantees.

In social and healthcare system all inhabitants of Russia are covered by a mandatory state health insurance program, which is free of charge. However, due to weak organizational structure, a lack of government finances, antiquated medical equipment, and poorly compensated workers, the public healthcare system has come under fire. In 2019, more than 40% of Russians said they did not trust doctors in their diagnoses (RBK, 2019). Which undermines the entire health care system and enables the private sector to flourish. Russia spent in 2020 over 1.5 thousand dollars per person on health care, which was, however, much less than other developed countries expenditures (Statista, 2021). Before the COVID-19 pandemic, according to a recent Bloomberg index, Russia is the world's 95th healthiest country, trailing most other Eastern European countries (Bloomberg, 2019).

Thus, we can state the fact that Russia, with a free social and healthcare system, still cannot create the level of its provision necessary for talents. This is why most companies offer voluntary health insurance to attract potential professional workers.

Preschool, general, vocational, higher, and further education are the primary levels of the Russian educational system. In 2019, the government spent more than four trillion Russian rubles on that industry, accounting for 3.7 percent of the country's gross domestic product (Statista, 2021).

Russia had about 1.1 thousand universities as of July 2020, which was the sixth biggest number in the world. Russian universities, on the whole, offered bachelor's, master's, and doctorate degrees. Students could, however, receive a five- or six-year specialist degree, which was only recognized in Russia and a few other CIS nations, instead of the first two. The majority of university programs featured a restricted number of state-funded study spots for students with the best exam scores, with the rest being financed. Furthermore, the state provided a monthly stipend to approximately 42% of bachelor students (Statista, 2021).

Higher education's popularity, on the other hand, has declined since its peak in the 2000s. In 2019, fewer than 4.1 million students attended Russian universities, compared to more 7 million in 2010 (Statista, 2021). The reasons for this tendency could include a belief that a diploma will not help them find work, a desire to avoid failing state examinations by attending college, or a lack of funds to attend it.

Secondary education accounted for the majority of the Russian government's investment in 2019, with over 1.6 trillion rubles spent, followed by preschool and higher education. In that area, applied scientific research earned 14.7 billion Russian rubles (Statista, 2021).

Higher education is a social norm and a prerequisite for career development. The modern educational system is losing its positions in the international arena strong (Kuzminov et al., 2013). The former Soviet system has built a foundation for modern quality mathematics and other natural sciences. But training in areas such as leadership, personnel management, communication, teamwork and motivation, which are necessary in a market society, are only developing in Russia. In view of the closeness to the West, the main emphasis in the training of personnel was placed on internal educational institutions, both at the initial stages of training (school), and from the point of view of encouraging additional academic degrees and continuing education courses (Latukha, 2015). Personnel development was limited only by professional skills and did not provide for anything that at the moment we could call soft skills.

The infrastructure situation in Russia is very different from region to region. The integral index of infrastructure development's national average value grew by 0.03 to 5.61. (out of 10) in 2019. This suggests that, compared to a year ago, the regions have become closer in terms of the

amount of industry facilities available. However, the average value is still low, indicating a significant infrastructure gap between the leading and lagging regions (InfraOne Research, 2020).

The communal infrastructure is the most developed in the country (average sectoral index 6.93), while transportation remains the least developed (3.23). It should be mentioned that, according to projections, the regions will not be able to erase such an imbalance in the next years (InfraOne Research, 2020).

The highest values of infrastructure development indices were recorded in Moscow (7.77) and St. Petersburg (6.91), which confirms the bias in the development of the two central regions and, as a result, confirms their status for choice by talents (InfraOne Research, 2020).

In Russia, there is a rather low level of environmental awareness, both on the part of the state, whose steps in the field of creating an environmental agenda and protective laws are extremely limited, and on the part of Russian citizens, most of whom do not currently put environmental problems in the top of the list. As of July 2020, the majority of Russians' attitudes regarding environmental issues had not changed much as a result of the COVID-19 outbreak. However, about a quarter of respondents throughout the country said they have begun to pay greater attention to environmental issues (Statista, 2021).

One of the main noted environmental problems in Russia is the problem of waste. Because Russia lacks a waste management policy, the problem has spread across the country. Open-air landfills with overflowing capacity were built adjacent to residential areas, causing odor and pollution problems for the local people. In 2019, Russia was predicted to have the fourth greatest number of unlawful dumping in Europe. The trash reform began in 2019, with the goal of modernizing Russia's waste management infrastructure and introducing garbage separation, but it has been criticized for its poor development and increased waste disposal prices.

Due to pollution, public discontent, and climate change, Russia, which accounts for 2.4 percent of worldwide municipal solid trash, is only now beginning to separate waste in households and conduct plastics recycling (Statista, 2021).

Most likely, such an attitude towards the environment comes from the presence in the country of more pressing problems that need to be addressed.

In Russia, entrepreneurship has a very limited history. Entrepreneurial activity was nearly entirely forbidden during the Soviet era. The previous 25 years of economic freedom in Russia, on the other hand, have seen a surge in entrepreneurial activity. More than 250,000 small and medium-sized businesses (SMEs) were functioning in the country as of 2019 (EFMD, 2020). The main issue with Russia's innovation system is that, as a result of transformational shocks (both on the demand and supply sides), the market equilibrium has been set at an extremely low level, which does not correspond to the accumulated intellectual and human resources, as well as material

assets. On the country's territory, more than 70 technology parks are currently operational, and federal centers of research and high technologies are being established in post-strategic scientific and technical fields. However, there are no significant science-intensive companies capable of taking on the financial and technological risks associated in developing new introductions (Bauman, 2003).

The Ministry of Industry and Science began establishing scientific institutes, ITC and industrial firms, as well as innovative and industrial complexes, in 1999. (IPC). Only 1% of the total number of R&D companies manage roughly 70% of the entire spending. The main problem of supporting and developing a scientific and technical base (and especially for small innovative enterprises) remains the problem of financing R&D. Today, it is difficult to meet an enterprise that has not tried to find a source of foreign investment. There are few solutions to this problem. The domestic banking system is weak. Foreign banks are very cautious in issuing loans to Russian enterprises only if they have first-class loan repayment guarantees, which are difficult to obtain. International financial institutions, such as the European Bank for Reconstruction and Development (EBRD), the International Finance Corporation and others, if they are considering a major investment project, in most cases under conditions of partial financing, which rarely exceeds 30% of the total funding (Dezhina, 2018). Thus, international financial institutions should be contacted only when there is already a strategic investor / partner.

Therefore, Russia needs an aggressive innovative policy of the state aimed at creating a complete innovative information structure that will allow innovative enterprises to successfully operate and create favorable conditions for venture investment.

In terms of ICT development, Russia ranks in the middle of the pack among other countries. At the same time, geopolitical tensions and international sanctions aimed at Russia have failed to dampen the impact of technological advancements. Despite its low overall degree of digitalization, Russia has demonstrated consistent growth rates and has the capacity to lead the way (Ergunova, et al., 2019).

State enterprises aren't far behind the authorities: by 2020, the number of state companies that have created and begun implementing digital strategies will have doubled (from 25 percent to 48 percent). In terms of digital transformation, banks and financial institutions, housing and public utility firms, telecom, insurance, and oil and gas companies all lead. The number of pilot projects in significant corporations increased by 38% year over year, and AI-based solutions were adopted by up to 85% of major corporations. Experts foresee a significant expansion in the extent of government digitalization, the rapid digitalization of all public services, and rising demand for CDTO in the years 2021-2025 (Analytical center for the Government of the Russian Federation, 2020).

In terms of culture (including business), Russia occupies a unique position at the junction of Europe and Asia (Sinchuk, 2016). The business culture of Russia, according to a number of parameters, such as individualism / collectivism, hierarchy / egalitarianism, etc.), is in an intermediate position between Western and Eastern cultures.

However, some research has emphasized the challenges in implementing TM in Russia (Holden & Vaiman, 2013) and the lack of interest among Russian companies towards TM (Latukha, 2015).

Holden & Vaiman (2013) suggested that TM in Russia can be assessed in terms of local contextual factors, such as long-standing public distrust of institutions, the preservation of Soviet mind software, a limited tradition of empowerment, and entrenched dominance.

The main features contributing to the formation of management practices for talented employees at the initial stages were problems associated with the historical legacy of the Soviet past with the directive nature of management and clear control, succession planning (personnel reserve), and limited practices. This phenomenon has led to presence of high level of bureaucracy, lack of freedom in decision-making processes within the companies, focus on visible short-term results and low level of innovations acceptance (Latukha, 2015).

Russian policy in terms of talent management is trying to tackle the brain drain. The current working conditions and programs proposed by the government are not always effective methods of solving the problem. That is why, considering the Soviet legacy, there are excesses in the progressive work with talents. Thus, in particular, through the media, there is partial disinformation and intimidation of the minds by showing bad news from the Western world (Vaiman, et al, 2018). This leads to talent shortages caused by rapid growth, labor shortages and significant foreign direct investment (Ready et al., 2008), likely to be exacerbated in the future by declining populations (Festing & Sahakiants, 2014).

Leaders of functions in enterprises were most often characterized as authoritarian with a clear place in the overall hierarchical structure, who most likely did not motivate, but used coercion and duty to fulfill assigned tasks to employees. Russian top management is usually characterized by low engagement into talent management systems implementation processes. Managers do not invest in talent management because of "the lack of visible related financial outcomes" (Latukha, 2015).

Thus, there is no need to talk about any specialized HRM practices or talent management in the Soviet Union, which is a significant drawback in the management and strategic directions of enterprises and companies.

At the moment, it is worth noting the fact that most Russian enterprises work more according to the old model of personnel management, which is explained by the lack of necessary management skills and competencies, as well as the lack of funding for such issues.

The new young generation, who were born in the 1990s, have already grown up within the framework of a freer way of life and are aware of information transparency. This is why this category may have completely different values than the older generation (Alas & Rees, 2006).

Thus, the authors note several groups of factors that characterize the business culture in Russia (Grachev, et al., 2007):

1) Traditional, historical (e.g. Reciprocity Rate);
2) Developed during the Soviet period (e.g. Arrangement);
3) After the collapse of the USSR in the 90s (e.g. risk-takers).

This multi-level allows modern managers to remain competitive in the market. These characteristics can have a positive impact on the development of talent management in Russian companies.

However, diverse and inclusive culture in Russian companies is not yet a very popular direction. The most confident steps are being taken by international companies that have representative offices in Russia. According to statistics, only 8% of Russian companies pursue D&I policies and takes 37 place in the World Bank's gender equality rating along with countries such as Burundi, Morocco and Uganda (Association Diversity and inclusion, 2021). This confirms the weak development of this direction in Russia and the lack of scientific literature on this topic. However, a new trend has emerged to introduce the world's best TM practices in Russian companies, especially in those that have begun their internationalization and have strong leaders who are sensitive to TM issues.

In cooperation with personnel in Russia, three main trends are emphasized: Training, Employee Experience and Leadership (Deloitte, 2019). This is in line with global trends, which suggests that Russian companies are starting to keep up with the times.

Thus, having considered the existing theoretical developments on the topic of ecosystems, MTM and the Russian context, we can formulate a research gap. It can be formulated as an application of the ecosystem concept in relation to MTM which will open up further understanding of how to create preferable conditions for talent in Russia.

Then 3 research questions were identified:

1) How elements of MTM ecosystem are determined on country and firm levels?
2) How elements of MTM ecosystem are interconnected and may serve for competitive advantages of firms and states?
3) How country-specific context' factors influence ecosystems for MTM?

In the next section it is necessary to turn to methodology in order to collect and process data more efficiently.

2. Research Methodology

This section will cover the basic research strategy. The study focused on the formation of talent management policy and practices regarding the employees in framework of the concept of ecosystems. We did not have a predetermined definition of the term ecosystem at the start of the study, because we wanted to explore the factors that can be relevant to this concept particularly in Russia.

In accordance with our research goal and question, this work will be based on a qualitative research methodology, since it involves the collection, processing and analysis of a large amount of information in order to develop a working hypothesis and model (Doz, 2011). Moreover, qualitative research uses "text as empirical material (instead numbers), starts from the notion of the social construction of realities under study, and is interested in the perspectives of participants, in everyday practices and everyday knowledge referring to the issue under study" (Flick, 2018). This definition perfectly suits our research.

In particular, Grounded theory sets out to discover or construct theory from data, systematically obtained and analyzed using comparative analysis. It will be used since the study is mainly qualified as exploratory (Jebb et al., 2017). Grounded theory methodology is designed to enable the discovery of inductive theory. It "allows the researcher to develop a theoretical account of the general features of a topic while simultaneously grounding the account in empirical observations or data" (Glaser & Strauss, 2017).

Thus, this study, when analyzing the impact of ecosystems on the formation of MTM practices, will be revealed most fully and efficiently.

2.1. Data collection process

This section is important to justify all subsequent strategies for empirical research. The data collection process was mainly explorative in nature. In total, two main areas of research can be distinguished: the first is work with literature and sources, the second is the direct collection of data by conducting in-depth expert interviews (Appendix 1).

The first stage was needed to get more detailed content to identify specific context of a certain country. Basically, these are secondary data-documentation and archival records, such as, for example, internal reports of countries linked to the economy, demography, cultural, environmental components of both government bodies and professional research agencies and consulting companies.

The second stage helps test the results and get more in-depth information regarding talent management practices in countries. Moreover, this approach allows avoiding misunderstanding and clarifying the answers. It can be divided into several stages: preparing guide interviews, identifying potential interview candidates, test interviews, scaling interviews.

Preparation of the interview guide. As part of this action, an interview guide was made, consisting of several parts. The first part focused on demographics and included questions about the experience of the respondent, the industry in which he / she works, and the region of presence. Next comes the main part, consisting of 31 open-ended questions, which are divided into 3 main groups (in accordance with research questions). The first group of questions focuses on specific elements of the ecosystem and their belonging to it. The second group of questions is aimed at confirming or refuting the connection that can exist between the elements of the ecosystem with each other. The third group of questions answers the question about the influence of the Russian context on the elements of the system.

Identifying potential candidates for interviews. To obtain quality data, it was necessary to determine the ideal portrait of the respondent. Given the specifics of the study and its somewhat interdisciplinary nature, relevant data can be obtained from an HR specialist, preferably at least the senior middle level, who has a broad outlook and a pool of tasks within the framework of his work activity. Also, given the context of the Russian Federation, it was necessary to find representatives from several Russian regions so that the study would not be skewed due to the focus on central cities (Moscow and St. Petersburg), as well as from different industries, in order to get a broader picture. It was also important to ensure that the distribution of HR specialists by gender is as close to reality as possible. The statistical data on the number of male and female population in the Russian Federation for 2021 was taken as a basis and a proportion of 46% of the male and 54% of the female population was identified (Rosstat, 2021). This proportion was approximately observed when selecting a pool of candidates for interviews. A total of 67 invitations were sent out, and 19 received positive responses.

Test interview. The main goal of this activity was to check the quality of the data - how well the received answers cover the purpose and objectives of the study. The test interview showed quite good results, but it brought up a few more problems. It was sometimes difficult for the respondent to quickly navigate with the answers in view of the novelty of the topic and not understanding some of the theoretical concepts used in the interview. That is why it was decided to make some adjustments to the interview guide. Specifically, a document was created with an introductory preamble explaining the purpose of the study, short descriptions and explanations of the theoretical frameworks used, and the main assumed elements of the ecosystem. This document

was created in order to send it to the interviewee in advance in order to bring him up to date and make the interview as effective as possible in terms of getting insights.

Scaling interviews. After working on the errors after the test interview, the interview algorithm began to scale. In-depth expert interviews were conducted with 19 HR professionals. The interview was non-standardized, one-to-one by using of Internet communication or Face-to-Face formats.

2.2 Respondents profile

In order to determine the parameters of the sample of interviewed persons, a portrait of the ideal candidate for the interview was created. This was necessary in order not only to target people, but also to justify the choice made.

Despite the fact that the topic is based on TM and gravitates towards the HR sphere, it is worth noting that knowledge only in this area is not enough to obtain high-quality data. An important aspect is multidisciplinarity, which allows people to look at existing issues from a broader perspective and provide relevant data.

That is why the main target group was HR specialists who have at least 4 years of experience, preferably with experience in various HR areas (recruitment, talent management, compensation and benefits, training, etc.). Usually, such specialists hold a position of at least HR Manager (depending on the size of the company and functionality, this can also be an HR Generalist or HR Business Partner).

As a result, a pool of 19 people was interviewed (Sample = 19), out of which 10 women (53%) and 9 men (47%). It reflects the gender distribution in the Russian Federation. As expected, these are HR specialists at the senior middle level and above. A total of 6 HR Generalists, 8 HR Managers and 5 HR Business Partners were interviewed. The average work experience of the respondents is about 8 years.

Also, the geography of presence tried to be considered as well. In view of the fact that in the regions there is often no need for a separate HR department in local companies, in view of the limited financial resources and the presence of a stereotype about HR specialists as “personnel officers”, there is still some bias towards large Russian cities - Moscow, St. Petersburg, where the headquarters of many international and Russian large companies are located. In total, 6 people were interviewed from Moscow, 5 from St. Petersburg, 2 from Kaliningrad, and 1 person each from Saratov, Sochi, Tomsk, Yekaterinburg, Tyumen and Novosibirsk.

Diversity in business sectors has also been respected. So, among the respondents there were 3 representatives of HoReCa, Retail and Oil and Gas industries, 2 representatives each from

Consulting, FMCG, Real Estate and IT sectors, and one representative each from Automobile and Banking.

Thus, we have identified the main information relevant for our study about the demographics of survey participants. Now we can move on to the process of analyzing the data itself.

2.3 Data analysis process

Within the framework of the qualitative research method, part of the analysis of the data obtained is always quite confusing and requires a lot of time to generalize and highlight common patterns in the respondents' answers.

Initially, work was done on the generalization of ideas in the scientific world about the potential elements of the MTM ecosystem, after which a hypothesis was put forward about the alleged elements, which the interviewees tried to confirm or deny.

The interview itself was designed in such a way as to break the proposed analysis into 3 main areas. So, the first block answered the first research question, where we are trying to identify the main elements of the MTM ecosystem on country and firm level. We then have a second block, which is responsible for a second research question about the relationship of certain elements to each other. Finally, the third block was devoted to the third research question about country-specific context ’factors that influence ecosystems for MTM. This multistage structure made it possible to achieve validity and accuracy of the analysis.

Content analysis was used to analyze the transcribed interviews of the respondents and highlight the main patterns in the responses of the participants. So, in the first part, the most frequently repeated opinions on the belonging of this or that element to the system and specific justifications were highlighted. In the second part, the most common connections between elements were found. In the third part, using generalization, a general portrait of the Russian country-specific context was formed. Thus, the method of analytical replication was applied to generate generalized conclusions, which postulates that when a certain pattern is found among the responses, their generalizability is enhanced (Tsang, 2014). To distinguish a pattern in the answers, a sufficient frequency of repetition of answers was chosen - if 8 respondents talk about this, then this is considered sufficient and important for consideration.

It is worth noting that within the framework of this strategy, by testing the hypothesis formed on the basis of literature review, and testing them using interviews, the main elements of the MTM ecosystem and their interconnection, as well as the main elements of Russian reality that affect MTM, were gradually established.

Now that the basic methodology of this study has been presented, it is important to move on to the empirical part and the main conclusions.

3. Empirical part

This section focuses on the main findings from the qualitative research. The data were processed, generalized and divided into three main areas with subsequent comments, relevant conclusions and recommendations.

3.1 Aggregated results of data analysis

This part of the work consists of analyzing data obtained through qualitative interviews. The data collection process was structured in such a way as to answer the posed research questions and to achieve the main goal of the research. It is worth emphasizing once again that the interviews were conducted with HR specialists with a sufficiently large work experience and a wide range of job responsibilities that they can thus be considered experts in their field. Expertise from Russian specialists was needed to get their views on the current situation with talent management in Russia, to confirm or deny the ecosystem elements that were previously identified and their interrelationships, as well as to determine the main characteristics of the Russian context and get a new perspective from practitioners on the existing definitions of MTM.

In the course of the interview, certain groups of similar answers have already appeared, which were subsequently combined and confirmed with a reliable quote from the transcribed interviews. Thus, adherence to a specific methodology was maintained and the required quality of data analysis was provided.

3.1.1 Main elements of the MTM ecosystem on country and firm level

This part defines the main elements of the ecosystem and confirms the need for this or that element with argumentation.

First of all, it was necessary to obtain information about what the respondents generally understand by MTM and what they could potentially call elements of the MTM ecosystem.

Most of the answers are synonymous with the academic definition given by the author in the theoretical part. Thus, respondent # 13 gives the following definition:

"MTM is a set of universal practices that are practiced on the country-level. It shows the consequence of relation between TM practices in the companies and the national regulations and policies".

An interesting interpretation is MTM's understanding by respondent # 2, who claims that:

"I would define it as a system of talent management (attraction, retention and development) at the state or organization level, not under the control of the individual (talent)".

Now, having defined the concept of MTM, you can proceed to the definition of elements. In their initial assessment of the list of elements I have provided, respondents are more likely to agree with it. However, there were some disagreements on individual elements, which will be discussed a little later.

Thus, 8 respondents could spontaneously name elements different from those proposed by the author. So, respondent # 6 says:

"I agree with your list of the main elements, although of course it is simply not possible to single out all of them. There is always a hidden element that can seem completely unrelated and unexpectedly have an impact on MTM".

Additional elements highlighted by respondents included:

At the state level: level of access to capital *("since the more money is attracted to the economies, the higher the level of entrepreneurial activity, the higher the competition and the more companies seek to develop their programs to attract and retain talent"* - respondent #10).

At the firm level: employer brand *("as a main source of competitive advantage on the outside market"*- respondent # 19); hygiene factors management systems and processes *("shows the level of the company in the market"* - respondent # 14), psychological climate *("as this directly affects the retention rate and allows attracting talent"* - respondent # 6), partnerships (*"partnerships with other organizations, openness to the outside world helps organizations to more accurately identify the needs of talent and share experiences, thereby creating a strong channel for the flow of information"* - respondent # 7).

Further, it was necessary to define in a more general sense the ideal conditions for the application of MTM both at the state level and at the firm level. In the course of generalization, the following main patterns were identified (Table.2):

Factor	Respondents' #
Opportunity to develop	**#1,2,3,4,6,9,12,13,16,17**
Flexibility and adaptability	#2,3,4,12,15
Strong diversity	**#2,4,5,6,8,10,13,14,16,19**
Comfortable living and working environment	**#2,3,4,6,7,11,13,16,17,18**

Table 2. Main ideal conditions for the application of MTM both at the state level and at the firm level

The most popular prerequisites for an application of MTM, both at the state level and at the firm level, are “opportunity to develop”, “strong diversity”, “comfortable living and working environment”. According to the respondents, all three groups are currently poorly developed in Russian reality, and they feel *“the need for a more detailed study and determination of some guidelines for building correct practices”* (respondent # 7).

Thus, respondent # 10 says that:

“At the country level, all talents should have the opportunity to develop. This means equal access to education, and then the right economic conditions for them to find work. It often happens that due to the latter, talents gather in single locations, which kind of limits organizations in other places. To implement specific policies in that direction, the government should understand the importance of talent management. The same happens at the firm level: top management should recognize talent management as an important factor for the company’s success”.

Respondent # 2 made a reasonable argument for diversity:

“I see it as an organization's openness to the diversity of its stakeholders, for example, openness to racial, cultural, religious, gender differences and support for equality of people with different backgrounds, which creates additional competitive advantages in firms. Unfortunately, at the moment there are very few such tools within companies, but they could bring potential benefits. Therefore, I think it is necessary to pay attention to this issue within the MTM ecosystem”.

Respondent # 19, in turn, speaks of:

“The development of infrastructure in the field of providing educational institutions and financial support for education in the country (science, preschool education, schools, universities, etc.); security (both political and economic stability and development of the country in the international arena); support of the health care system (financial support for medical institutions and citizens with disabilities); protection of human rights (freedom of citizens' rights) in order to ensure a basic decent life in order to then make a high-quality superstructure of MTM practices”.

Then the author goes on to specific questions about the belonging of one factor or another to the MTM ecosystem. This part of the elements is at the country level.

The first factor to be condemned was the factor y - government laws, restrictions, policies, programs and activities.

The vast majority of respondents confirm a direct connection between this element and the ecosystem, for example, respondent # 2 emphasizing that:

“The state has a direct impact on MTM and influences the maintenance of MTM by creating a favorable infrastructure for the development of talents in the country and strengthening those factors that would influence the choice of talents to stay in this country”.

However, there were also doubting respondents. Thus, respondent # 17 emphasizes the importance of state regulation only for:

"Some categories of officials, for example, there is a compulsory periodic change of job description. In other cases, in my view, such as in the commercial sector, their impact is almost unaffected. However, as far as programs are concerned, the state can determine the areas where employees are deployed, which allows point-by-point development of the regions".

Respondent # 4 raised an important topic about the growing role of transnational corporations in the decision-making process at the state level:

"Before, government laws and regulations were of key importance for MTM. But now we are witnessing a crisis of state systems around the world and corporations are lobbying for their interests. This is due, in my opinion, to the fact that many companies are becoming more high-tech and already want to dictate the terms of the game themselves".

Thus, we can conclude that government laws, restrictions, policies, programs and activities affect MTM at the country level and their influence is currently quite strong. Of course, in the near future, scenarios for the development of interception of the TNK initiative are possible, but in the next at least 5-10 years this is unlikely.

The second criterion for discussion was demographics, diaspora and returnees.

The vast majority of respondents also noted the influence of this element on MTM, however, the degree of this influence was assessed in different ways. For example, respondent # 6 sees a strong influence of this element:

"The higher the population growth (be it birth rate, migrants), the more potential talents a country can have. However, this may also have the opposite consequences: the larger the population, the more difficult it is to educate everyone, and the myth of the "infinity of human resources" also appears. Therefore, the concept of the development of each individual fades into the background a little. Returnees, as well, can bring new fresh ideas, including at the talent management level".

And respondent # 2 sees the connection, but notes that its influence is not so great:

"Sociological factors influence talents at the country level through the influence on the background of talents and the formation of their attitude to development in a given country. I think individual factors (family, upbringing, culture) are still more important".

Respondent # 3 denies any influence, saying that:

"Diaspora and returnees can influence only minority of people in general".

It can be concluded that demographics, diaspora and returnees are elements of the MTM ecosystem, although their influence is not always straightforward and obvious.

The third potential element is developed infrastructure. Based on the interview results, 15 respondents see a strong connection of this element on MTM. For example, respondent # 16 notes that:

"For many people, especially recent graduates, the importance of urban infrastructure and the general prosperity of the region is one of the determining factors in choosing an opportunity within MTM. Sometimes the importance of infrastructure is valued by people over salary, career opportunities and responsibilities. Even if a candidate accepts an MTM program in another region, it is likely that they will want to return to a developed city or region after some time".

However, 2 respondents report only a small impact. For example, respondent # 1 says that:

"It certainly makes some talent management supporting programs easier. For example, Sirius attracts talents from all over Russia. But sometimes it becomes one big lie and nothing happens".

One respondent (# 3) was skeptical:

"Infrastructure is just a tool for supporting talent management, but not an active actor here. I think that the affect is indirect, but the notion MTM is too general in this sense. The more general the notion is, the more factors can affect it".

Thus, the majority of respondents confirmed the strong influence of developed infrastructure on MTM, since the presence of this in the country creates conditions for the formation of a long-term positive attitude of talents to their country.

The fourth element to be tested was political stability. All interviewees confirmed the influence of this element. 16 people see the strong influence of this element. Respondent # 12 suggests that due to political stability:

"First of all, people are more active in opening their businesses, as there is confidence in the future and the invariability of laws. It affects the number of jobs and wages, which keeps talent in the country and attracts foreigners".

An interesting commentary was the answer of respondent # 4, who cited the stability of the Soviet Union and its negative impact on Russia of the present and MTM:

"Now in Russia people do not seem to take the rules seriously until the severe consequences of their deviation from the rules appear. As a result, managers have to abuse power to maintain discipline".

The rest of the respondents say that there is an influence, but it is average. For example, respondent # 7 notes that:

"Political stability also creates conditions for the safe development of talent in their country. She forms the long-term relationship of talent to her homeland. However, there are examples of how it didn't play a big role for people, as they are used to taking risks".

So, it's worth noting that respondents confirmed the strong influence of political stability on MTM.

The fifth element for confirmation was the social and healthcare system. 15 respondents confirmed the strong influence of the element on the MTM ecosystem. Mainly arguments in support were given, which concerned the creation of a comfortable climate for the development of human resources. An illustrative example is the comment of respondent # 19:

"Social security and a developed health care system are one of the key indicators of the country's quality of life. Without their support, mortality and morbidity in the country will increase, which will create a strong incentive to leave for another, more stable and secure country, which will lead to an outflow of human capital from the country and a deterioration in its position in the international arena".

4 people also confirmed the influence, but they called it average or calculated not for all strata of society. Thus, respondent # 13 believes that:

"Some people have this factor as a priority, for example the elder generation", and # 9 "For some people it could be a factor of where they want to live. And maybe if your work in the health sector, it affects your decision to work in your home country or go abroad".

Thus, the majority of those surveyed confirm the strong influence of the social and healthcare system on the MTM ecosystem.

The sixth element to confirm is human rights protection. 17 people confirmed the impact of this element on the MTM ecosystem. Respondent # 1's comment here is extremely relevant:

"Protecting human rights gives him freedom of expression. This has a direct impact on the professional and personal development of talents and the formation of his vision of his country in the long term".

Of these, 6 people associated human rights protection with the other elements mentioned, for example, with political stability and government laws, restrictions, policies, programs and activities. For example, respondent # 18 notes:

"It affirms the rule of law and has a positive effect on political stability, which reduces emigration and fosters talent development".

However, 2 people said they believe that this element does not play a role in Russian realities. Thus, these respondents appeal to the fact that in Russia, as in China, the level of human rights observance leaves much to be desired, but there are talented people in the countries and

many of them remain to work for the good of their homeland. For example, respondent # 14 noted that:

"By creating favorable conditions within the company, it is possible to neutralize the effect of observing human rights. There is not a single country in the world that would be an ideal example of their observance, since many statements are rather brainwashing. Therefore, there are other more important factors".

Thus, human rights protection in the eyes of respondents is a factor that both positively and negatively affects the MTM ecosystem. It is worth emphasizing the closeness of this factor to political stability, which is an interesting observation for building the final model.

The seventh element to consider was environmental awareness. This element has generated the most lively discussion. Thirteen people consider environmental awareness an important element, but unimportant in the Russian reality, referring us to the concept of "greenwashing". For example, respondent # 19 noted that:

"Russian society at the moment is not yet developed enough to think about ecology. We have other more pressing problems, for example in the economy".

6 people found minimal influence on the MTM ecosystem in Russia, which mainly relates to the concept of well-being. Thus, respondent # 2 emphasizes that:

"It allows individuals to feel protected and create favorable conditions for long-term development in the country and contribute to the health and productivity of talent".

Thus, the respondents did not confirm the hypothesis about the inclusion of environmental awareness as an element of the MTM ecosystem, speaking about the unimportance of this indicator in the Russian agenda and realities.

The eighth elements for discussion were the elements of the network of universities and research institutions. All respondents confirmed their importance to the MTM ecosystem. This is best illustrated by Respondent # 8's answer:

"This is probably one of the most important aspects: the quality of education in certain regions defines the quality of education of future workers. If you want to foster talent development, you should give talents a chance to study. This could include the support of universities, financial assistance to students, connections between universities both within the country and abroad, platforms for informational exchange, and so on".

However, respondent # 4 notes some "pain points" of these elements, pointing out that:

"It is not so much access to education that is important (although it is, of course), but its quality. <…> School education, which forms a person, is at the lowest level, since salaries do not motivate qualified teachers. And professional education leaves much to be desired, since it is rather conservative and squeezed by the framework of the accepted discourse".

Thus, it was unanimously accepted that the network of universities and research institutions are elements of the ecosystem and strongly influence it.

Next, we will look at the elements that relate to the firm level. The diverse and inclusive culture was the first to be confirmed. All respondents confirmed the impact of this element on the MTM ecosystem.

14 respondents see strong influence. Thus, respondent # 6 says that:

"It influences the attraction of talents with a global mindset and a more creative approach to problem solving and openness to life. Such people are talents at the global level and shape the culture of the company".

The other 5 people described this influence as "average", drawing attention to the fact that it depends on the inner values of talent (individual level). Most interesting in this regard is the comment of respondent # 19:

"For some people it is important that the team is diverse, for others it doesn't matter. It depends on the candidate and their tendency to be culturally diverse at work. It also depends on the level of foreign language proficiency sufficient to communicate comfortably with expats or just foreign colleagues".

Thus, all respondents confirmed the impact of diverse and inclusive culture on the MTM ecosystem.

The second for discussion was innovative entrepreneurs and the level of digitalization. 8 respondents see the influence as strong enough. For example, respondent # 18 notes:

"Innovation in general attracts employees, especially creative employees. The level of digitalization has a lesser impact, but as the pandemic has shown, the level of digitalization will also soon come into importance as the level of enterprise innovativeness".

The remaining 11 respondents classify the impact as "average" rather. Respondent # 14's answer:

"Level of digitalization, the digital instruments are just tools in hands of a worker. They can facilitate the MTM, but only if used correctly. And about innovative entrepreneurs. If they relate to a company through the inner business incubators, probably, they would be able to come up with a project / product, which could facilitate the MTM process".

Thus, the influence of innovative entrepreneurs and the level of digitalization on the MTM ecosystem is confirmed, although their influence is not so great.

Third, we will consider the elements of knowledge-based enterprises and R&D. 7 respondents found these elements to have a high impact on the MTM ecosystem.

Respondent # 16 says that:

"If knowledge-based enterprises and R&D are located nearby, then the flow of knowledge circulates between them, creating additional value for the company".

A respondent # 6 is underlining:

"The more a company bases its work on knowledge and invests in R&D, the higher the chance that specialist enthusiasts will want to join you. Interesting projects, unique technologies and laboratories can attract talent from around the world".

12 respondents noted that these elements have a moderate impact, mainly based on the fact that the impact depends on the size of the company (large corporations have more attention), industry, and the regulation of emerging areas of new technology.

For example, respondent # 10 draws our attention to the fact that:

"Some companies just need to be interesting to work for, which is shaped by their culture, e.g. in the FMCG sector, others need to be knowledge-intensive, innovative and costly in terms of R&D and an ever-growing number of patents, e.g. IBM".

So, it is possible to confirm the inclusion of this element in the ecosystem, but at the same time keep in mind the fact that its influence is not so strong.

Having identified the main elements of the ecosystem, now you can move on to their interconnections and interactions.

3.1.2 Identified elements of the MTM and their interconnections

In this part, we will look at the main interrelationships of elements that can help a firm and a government create a competitive advantage and are based on the hypotheses identified during the theoretical part, as well as the responses of the respondents themselves.

First of all, the interrelation of government laws, restrictions, policies, programs, activities and diverse and inclusive culture was considered. All respondents see a direct strong connection between elements. However, the respondents set different accents.

For example, respondent # 16 says that:

"Government laws, restrictions and policies affect culture at the country level and also within the company. In Russian companies, it is much more difficult to advance your idea to the main structures if you follow the standard paths. A lot in the company depends on personal communication, acquaintances and connections. In international companies, success depends on knowledge and experience. A low power distance and a tendency towards individualism open the way for enterprising employees, which contributes to the development of the company".

For respondent # 3, it is very important that the state takes a more passive stance towards diversity and inclusion initiatives:

“Because the market would be able to decide which companies would do better: diverse and inclusive or not. I am glad that Russia does not have a strong coercive D&I policy of the state, as in many European countries. " Since, in his opinion, "gender quotas lead to even greater discrimination”.

Respondent # 13 notes that the degree of government influence on diversity and inclusion policies in Russia depends on the size and type of the company. It was noted that:

“In state organizations the probability of a diverse culture is very low, because, for example, only the citizens of the Russian Federation are allowed to work there. Companies with more flexible work organization structure have more opportunities for diversity in attractive foreign employees. International companies have their own standards and policies in terms of diversity and can be influenced only if the state imposed some kind of ban on international travels, which will prevent future employees from coming, which happened during COVID-19”.

Thus, the respondents see the relationship between these two elements, although in Russian realities it is not so strong, since the state does not pursue an active policy in the field of diversity and inclusion, placing only a weak emphasis on women.

Next, we will consider the relationship between sociological indicators such as demographics, diaspora and returnees and diverse and inclusive culture.

All respondents see a connection between these elements. Respondent # 1 stresses that:

“This affects the realities of the labor market: what cultures the employees represent, what jobs they occupy, and what expectations they have. Therefore, it affects the aspects of diversity and inclusion that should be highlighted”.

However, 16 out of 19 respondents note that the connection within the framework of Russian realities is not so strong. Respondent # 14 associates a low level of influence with government policy, saying that:

“We do not have well-established mechanisms and practices for working with the diaspora and returnees, measures to support the birth rate do not encourage educated people to have more children, and legislation makes the recruitment process foreign labor force is practically impossible (especially in the framework of state-owned companies, as well as Russian small and medium-sized businesses)”.

Respondent # 4's answer adds argumentation to the discussion:

“First of all, a large-scale education reform is important for quality education in Russia, there are many potentially talented young people in Russia, many of whom, unfortunately, will arrange their professional life outside of Russia”.

Thus, bearing in mind that there is a connection between these elements, during the discussion, other interdependencies became clear - demographics, diaspora and returnees,

employer brand and government laws, restrictions, policies, programs, activities; access to education and demographics, diaspora and returnees, hygiene factors management system and processes; demographics, diaspora and returnees and psychological climate.

Third, the impact of access to education on innovative entrepreneurs is tested. 18 people see a strong relationship between these elements. Respondent # 9 confirms this by saying:

"Qualitative and competitive education, that offers a wide range of learning and developing opportunities for students to motivate them to create something new, pushes for innovation. There is a connection between the quality of education and initiatives".

Respondent # 4 sees the connection, but would describe it more as "average", saying that:

"Traditional university education is slowly fading into the background, especially during the COVID-19 pandemic, when more and more people are discovering the benefits of online education through various platforms. Moreover, he cites the culture of startups in Estonia, Ireland, Denmark, Finland as an example, concluding that "the governments of these countries are facilitating innovation culture. Many of such startups are run by foreigners. I do think that the world has become so much borderless".

Thus, we see a strong influence of these elements on each other, and also highlight another relationship between innovative entrepreneurs and government laws, restrictions, policies, programs, activities.

Fourth, the relationship between political stability, social and healthcare system, human rights protection and access to education is questioned.

All respondents see the relationship between these elements. 17 out of 19 respondents confirm a strong connection. Respondent # 18 draws our attention to the fact that:

"The influence of political stability entails the normal functioning of the entire health care system, social and educational systems of the state, while the existence of a tense political situation, processes associated with social and political destabilization of the state, entails a whole series of problems".

2 respondents characterize the relationship as average. Respondent # 7 says that:

"In general, the more stable the country is, the better it can protect human rights, improve the quality of living. But it doesn't mean, that stable countries are automatically great at protecting human rights".

Thus, the strong interconnection of these elements is emphasized.

Fifth, the impact of access to education and R&D is tested. 16 respondents see a strong relationship between these elements. Respondent # 16 notes:

"Access to education and improved quality of teaching at universities impacts more developments in research centers. Having acquired the skills of scientific research, young people will be able to use them in conducting serious scientific research".

3 respondents see minimal or no influence, referring to the fact that simple access to education will not necessarily lead to scientific impulses, since the quality of knowledge, professionalism of employees, availability of funds and freedom are important. Respondent # 19 notes that:

"Quantity does not always mean quality. So there might be more research, but I cannot say anything about its quality. Innovation centers have been created in Russia (Skolkovo, Innopolis, etc.), but there are no really worthwhile developments that could compete in the international market".

Thus, there is a connection between these two elements, but it must be supplemented by other elements, such as access to education, level of freedom that can be provided by government laws, restrictions, policies, programs, activities.

Sixth, it is necessary to check whether knowledge-intensive enterprises affect R&D. As in the previous question, respondents tend to agree on the strong influence of the elements on each other. So, 16 people answered. Respondent # 10 notes:

"They influence the development of resources for new ideas and exchange of opinions, as a result - the development of talents and human capital in the country."

3 respondents tend to see this influence as average, in view of the fact that other factors also influence R&D. For example, respondent # 13 says that:

"It depends on the governmental support of it, if lets public know what is happening in terms of innovations, because this field is very closed".

So, a strong relationship between the elements is confirmed and an element of government laws, restrictions, policies, programs, activities is added, creating a kind of triad.

Seventh, the relationship between the network of universities, research institutions and developed infrastructure is considered. 14 respondents answered that the connection between these elements exists and it is strong. Respondent # 11 drew attention to the fact that:

"Attracting talent to work in a company is only in close cooperation with specialized universities and research centers. To do this, you need to create strong partnerships".

As an example, some also cited the case of Moscow and St. Petersburg, as cities with the most developed infrastructure and good universities and research centers.

The rest of the respondents were a little critical, they admit that there is a connection, but they say that now we can observe the presence of other trends in distance (especially during the COVID-19 pandemic). Respondent # 3 added an interesting observation that:

"The physical distances are losing the importance in the modern world, as many Russian companies and universities offer the distance format".

So, the hypothesis of a strong relationship between network of universities, research institutions and developed infrastructure is confirmed. To enhance the effect, you need to add partnerships. Of course, there is a trend towards distance format. In 2020, according to data in Russia, about 60% of students approved this format and the majority of Russian workers aged 25 and up would like to work on-site in the future (Statista, 2020, 2021). However, until he gained sufficient strength.

Eighth, it is necessary to see if there is a relationship between digitalization, knowledge-intensive enterprises and social and healthcare system. All respondents noted the strong influence of these factors on each other. The main arguments were the illustrative ability of the COVID-19 pandemic case to show the importance of digitalization, since all spheres of life (business, education, social services and healthcare) have gone digital.

Thus, respondent # 15 says that:

"Digitalization gives more opportunity to people to gain knowledge from all parts of the world. Self-education becomes possible for more people, so in terms of quality of the talents it has made a significant influence".

And respondent # 5 confirms the importance of digitalization for some areas of Russian society:

"Digitalization and Big data allow you to efficiently analyze data and make adjustments on time. Therefore, the business environment, the level of knowledge in the country, and the socio-environmental factors in the country are developing".

Thus, the impact of digitalization on knowledge-intensive enterprises and social and healthcare system is quite strong.

In this section, we analyzed the relationship between the elements and got an idea that some elements, such as digitalization, universities, research centers, industry clusters and developed infrastructure, government laws, restrictions, policies, programs, activities, demographics, diaspora and returnees are the centers of an entire network of relationships that help to gain a competitive advantage, both at the firm and national levels.

In the next section, the context of the Russian Federation and its impact on the considered ecosystem will be considered in more detail.

3.1.3 Main characteristics of Russian country-specific context and their influence on MTM ecosystem

This part is devoted to the determination by experts of the main characteristics of the Russian context that have the greatest impact on the MTM ecosystem in the country.

First of all, it was necessary to identify the main elements of the Russian context in order to substantively talk about further items on the agenda. To begin with, the respondents were asked to identify the main country-specific elements that, in their understanding, can be mentioned within the ecosystem and influence it at various levels (Table.3).

Factor	Respondents' #
Diversity and inclusion	**#2,3,4,5,8,10,17,19**
Openness	#2,3,6,14,16
Social securities (education, healthcare system, civil rights)	**#1,2,3,4,8,9,13,14,16,17,19**
Political system	**#3,5,6,11,12,13,16,18**
Innovations	#10,13,15,17
Competition on Russian market	#4,7,12

Table 3. Main elements of the Russian context

Most respondents point to Social securities (education, healthcare system, civil rights) as one of the main characteristics of the internal Russian context, which can both positively and negatively influence MTM. To illustrate this element, the case study of the educational sphere will be considered, as the one closest to talent management, according to the interviewees.

Respondent # 16 emphasized the importance of:

"Interaction between the state and business, creating conditions for the development of the abilities of Russian talented youth, regardless of place of residence, social status and financial capabilities".

It should be noted that the majority of respondents assess this characteristic negatively within the Russian context, recalling the former greatness of the Soviet education system and criticizing modern approaches to teaching (for example, the almost complete absence of practice-oriented directions, the development of soft skills and leadership in schools, low salaries for teachers / professors of higher educational institutions and, as a consequence, lack of motivation to study, etc.). As a result, for example, respondents # 1, 14 pay attention to an echo of the past in the current advantage of Russia in technical specialists, which are now so in demand abroad. So, in support of all of the above, respondent # 1 says:

"We have really good technical specialists, which are invited to companies all around the world. I believe that a change in the environment here could affect the global talent management ecosystem".

The respondents, in general, tried to assess the future of Russia in the social sphere rather optimistically, suggesting possible ways of solving the existing problems. Thus, respondent # 17 suggests that:

"The development of scholarship programs for academic mobility could create additional value for Russian professionals".

Thus, experts assess the social sphere as extremely important for the Russian context and prevention of brain drain within the country. However, they assess the current government measures as unsatisfactory for talent to remain in Russia, as well as for existing talent management practices on the part of companies to be have full force.

The second important characteristic, in the opinion of the respondents, was the political system existing in the Russian Federation. In this regard, respondent # 3 emphasized:

"I think that such country level factors, like self-improving political system, true competition among political parties, protection of human rights are critical for Russian future".

Indeed, the majority of respondents talk about the negative impact of the country's current political course on MTM, citing as examples the lack of free movement of talented specialists for internships in foreign companies (especially in strategically important industries), hostility to some world practices, since they came from "enemy states "and so on.

All this leads to the fact that Russian companies (especially those related to strategic industries or with state participation in capital) do not adopt successful experience in managing the talents of foreign colleagues and, thereby, lose valuable human resources, since such specialists are inclined either to go to work in branches of international companies in Russia, or go abroad, where the practices of retaining and supporting employees are at a higher level.

The third most important element was diversity and inclusion. By this the respondents understood both gender and cultural diversity in the country. Respondent # 17 emphasized that:

"The development of diversity and inclusiveness for the Russian context is also an important factor that positively affects the talent management system. The current state of affairs with migrants is more or less under control, but there are legal problems with hiring foreign citizens. However, gender issues deserve closer attention".

Russia is a multinational country with a high degree of migration from some countries of the former Soviet Union, which are quite easily assimilated into society. However, most often it is a low-skilled labor force that comes to work. Therefore, it is impossible to say about a qualitative inflow of talents. Practices for gender equality within companies are practically absent, which

negatively affects the overall health of MTM in the country and leads to lower results in the global benchmark. According to the research, companies having more diverse teams perform better than their industry market average: 25-36% are more likely to be more profitable, up to 30% have greater ability of spotting risks and 1.7 times are more likely to be innovation leaders (World Economic Forum, 2020; Deloitte, 2015).

Thus, being an extremely important characteristic of the Russian context for the MTM ecosystem, it still needs additional efforts, both on the part of the state and on the part of companies.

Further, the characteristics of the Russian context were identified that can create competitive advantages for the firm (Table.4).

Factor	Respondents' #
Geographical location and infrastructure	**#1,3,4,9,11,13,14,17,18**
Labor remuneration system	#8,10,12,17
Mentality	**#2,3,5,6,13,14,15,19**
Education	#2,7,13,16

Table 4. Characteristics of the Russian context creating competitive advantages for firm

For most of the respondents, geographical location and infrastructure were found to be an important element in creating a competitive advantage for the firm. It should be noted that the respondents had in mind free access to resources (both to financial, decision-making institutions, social benefits, and to talents through job fairs, career portals, etc.)

The Russian context shows a tendency for the concentration of large enterprises and companies in the main cities with a population of over one million, thereby creating a competitive advantage for large cities in view of their development and, as a result, attractiveness for talents from the regions. So, respondent # 1 confirms this with the example of career opportunities:

"There is an imbalance [in Russia] between larger and smaller cities in terms of job opportunities and so on".

Respondent # 17 emphasizes that it is possible to find solutions to this problem:

"There are many single-industry towns in Russia. This can be used to develop talent with in-depth knowledge of the industry by setting up training facilities or innovation centers at such enterprises. Also, in order to attract people to them, comfortable living and development infrastructure is needed".

Thus, the regions are encouraged to follow the example of Russian central large cities, creating the necessary infrastructure (with sufficient funding from the center) and using existing solutions.

The Russian mentality turned out to be the second most important. The Russian mentality is any prevailing patterns, stereotypes and patterns of thinking. That is why this concept, of course, is very difficult to formulate precisely, since each respondent brought into it his own background and flavor: someone emphasized the "Soviet citizen", someone referred to the Official Nationality Theory (Orthodoxy, Autocracy, and Nationality), formulated by Sergey Uvarov (Badalyan, 2019), and someone appealed to the modern Russian citizen of the world. One way or another, the main idea is a kind of suffering image of the Russian people, which has gone through a lot and thereby acquired resistance to change and flexibility of thinking.

Respondent # 6's response summarized all of the above in his statement:

"The ability of a Russian person to be proactive, despite the circumstances, and to think outside the box".

Thus, the respondents concluded that in the Russian context people with a unique mentality, even in the absence of world standards and talent management practices, are still capable of much, which I am the driving force for Russian enterprises.

These two paradigms complement each other, creating powerful competitive advantages for talent in big cities, but the problem of regions requires a separate consideration.

It should also be noted the barriers inside and outside, which hinder the development of the planned course.

A survey of respondents on the influence of external factors on the elements of the MTM ecosystem showed that the majority of respondents see this influence although, for example, respondent # 2 noted that:

"It depends on the industry and the business goals of the company. Since some companies, for example, those related to the development or promotion of environmental, medical, financial products and services will be strongly tied to standards and their performance will directly depend on this".

Overall, it is worth noting that more than half of the respondents see a strong connection between external factors in the elements of the MTM ecosystem (Fig.2).

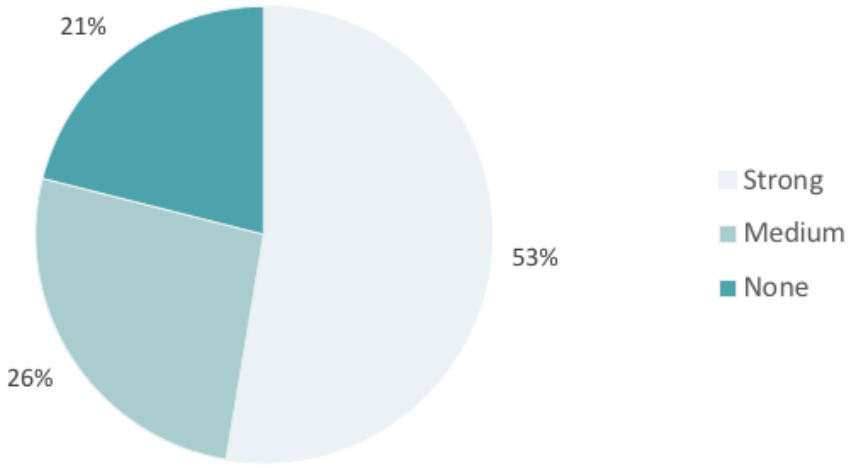

Figure.2. Influence of external factors on the elements of the MTM ecosystem.

Barriers for development from Russian context were also identified (Table.5):

Factor	Respondents' #
Bureaucracy	**#2,3,7,8,13,12,16,17**
Corruption and Nepotism	**#1,3,5,6,10,11,18,19**
Unclear KPIs and chain of command	#2,9,13,14,16
People just resources	#3,5,10
Lack of resources	#3,13,17
COVID-19	#4,12,15

Table 5. Barriers for development from Russian context.

The system of bureaucracy in Russian reality has made work in companies extremely slow and difficult. Russian laws and standards require from enterprises a huge amount of documentation, which is sometimes writing for the desk drawer and is done just for the record. So, respondent # 2:

"In my experience, the bureaucratic system (coordination through several levels) is an important obstacle to development, because I spend a huge amount of time filling out forms instead of actually doing something useful for the company and its talents".

Corruption and nepotism make the situation worse. Respondent # 3 stresses:

"Well-paid vacancies are spread only among certain groups of people. They are not being published openly".

This leads to the fact that the allocated money for certain initiatives never reaches the addressee, in particular, because incompetent people occupy important positions within the company, which leads to large losses (Yasmeen, et al., 2019).

Both factors lead to the fact that the company does not have the necessary resources at the right time, both financial and human, for important projects. In the absence of competition in the market, this is not a serious problem, but in the global race for innovation, these factors are among the main factors for success.

Then it was necessary to determine the differences between the Russian context and other countries of the world (Table.6).

Factor	Respondents' #
Historical heritage	**#1,5,6,9,12,13,16,17,19**
Mentality	#1,4,6,7,11,12
Political system	**#2,3,6,8,10,13,15,17,19**
Diversity and culture	#2,5,3,12,14,18

Table 6. Differences between the Russian context and other countries of the world

First of all, the respondents paid attention to the historical heritage - the Soviet Union, the consequences of its collapse in the form of the dangerous 90s. and the need to build democratic processes in an extremely tight timeframe. Respondent # 1 notes:

"It is a post-communist country with some institutions that have remained from soviet times. This past has also affected the mentality and certain approaches to work and talents".

The past, in particular, explains some of the aforementioned barriers, for example, bureaucracy, since the processes have not yet been established and there are certain excesses, corruption, since the system is imperfect and it is much more difficult to follow the rules in it than to bypass them or find a loophole, nepotism, so as the experience of the 90s. taught to trust only "trusted people", and also reinforced some homophobic sentiments. In particular, respondent # 12 draws our attention to the traditions of upbringing:

"There may be more stereotypes of sexism, homophobia, and racism on the Russian labor market than in European countries. Personally, I don't think this has a significant impact, but it's unwise to deny that there are certain barriers".

Moreover, the respondents noted the great role of the Russian political system as a result of the historical past. Russian perceptions of democracy and values differ from Western standards, leading to conflicts. Respondent # 17 notes the consequence of this phenomenon:

"Currently, not all countries are politically and economically positive towards Russia, which hinders cross-country MTM programs".

These differences lead to a different view of Russians on existing global issues. The name of such cultural differences is understandable; some resistance to Western practices in some non-Europeanized parts of the country, although they could certainly be beneficial.

Finally, figure out how these specific elements relate to the ecosystem for MTM. It should be noted that the vast majority of respondents believe that the impact of the country-specific context on MTM is very high. Respondent # 6 stressed that:

"MTM cannot be considered separately from the country, since it is inseparable from the people and the state in which they live. A story that brings people together leaves a certain mark. There are many examples in Russia when talented people were forced to leave the country in order to realize their ideas. This trend has continued to this day. Even when the state guarantees security, freedom and financial support, people still tend to distrust the state".

3.2 Research findings and recommendations

Once you have the data you need for further work, you can move on to the main research findings and based on them recommendations. During the first part of the analysis of respondents' responses, the main elements for the MTM ecosystem were found.

This included the following elements:

Country level elements: government laws, restrictions, policies, programs and activities, demographics, diaspora and returnees, diverse infrastructure, political stability, social and healthcare system, human rights protection, access to education, network of universities and research institutions, level of access to capital

Firm level elements: Diverse and inclusive culture, innovative entrepreneurs, knowledge-based enterprises, R&D, level of digitalization, employer brand, hygiene factors management systems and processes, psychological climate, partnerships.

Based on the comments received from the respondents, it is possible to distribute these elements according to the degree of their significance for the Russian context (Fig.3).

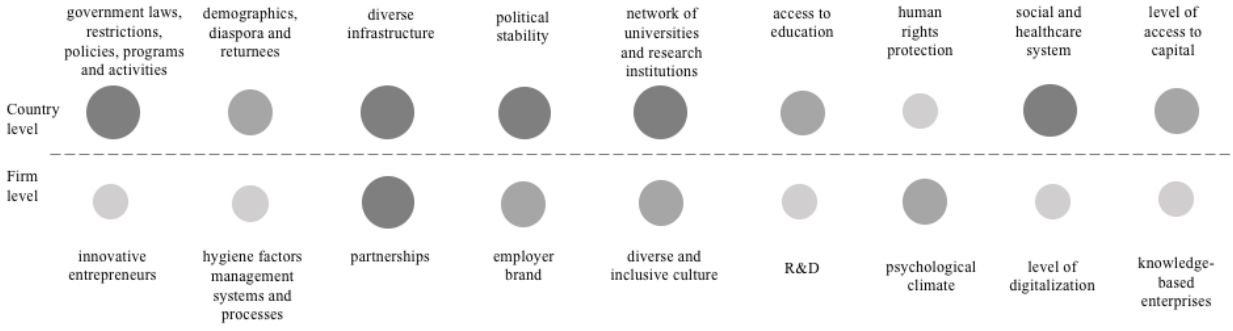

Figure 3. MTM ecosystem elements and its relevance

Further, based on this analysis and the results of the second block of questions, it is possible to form certain clusters of the most significant elements for the ecosystem, which can form a competitive advantage both at the state level and at the firm level (Table.7).

Degree of connection	Connections
Strong	1) demographics, diaspora and returnees - government laws, restrictions, policies, programs, activities 2) network of universities and research institutions - innovative entrepreneurs 3) innovative entrepreneurs - government laws, restrictions, policies, programs, activities 4) political stability - social and healthcare system - human rights protection - access to education - government laws, restrictions, policies, programs, activities 5) access to education - R&D - level of access to capital - government laws, restrictions, policies, programs, activities 6) knowledge-intensive enterprises - R&D - government laws, restrictions, policies, programs, activities 7) network of universities and research institutions – partnerships- developed infrastructure 8) level of digitalization - knowledge-intensive enterprises - social and healthcare system
Medium	1) demographics, diaspora and returnees - diverse and inclusive culture - psychological climate 2) access to education - demographics, diaspora and returnees - hygiene

	factors management systems and processes
Weak	1) government laws, restrictions, policies, programs, activities - diverse and inclusive culture – employer brand

Table 7. MTM elements and its degree of interconnections

Paying attention to the strongest connections, it is possible to derive even more closely interconnected clusters, the basis of which are the elements with the greatest degree of influence on the MTM ecosystem.

1) demographics, diaspora and returnees - government laws, restrictions, policies, programs, activities (to ensure freer movement of talent and a stronger culture of diversity to create innovation and exchange of experience);
2) network of universities and research institutions - developed infrastructure - innovative entrepreneurs - government laws, restrictions, policies, programs, activities - access to education - R&D - level of access to capital - knowledge-intensive enterprises-partnerships (to create an environment with the greatest the degree of attractiveness for talents and the development of their potential);
3) political stability - social and healthcare system - human rights protection - access to education - level of digitalization - knowledge-intensive enterprises - government laws, restrictions, policies, programs, activities (to create a common comfortable living environment for talents).

These three clusters are ideally combined with certain ideal conditions for MTM in Russia ("opportunity to develop", "strong diversity", "comfortable living and working environment"). Thus, there is a connection and relevance of the obtained tools for practitioners, since they described certain problems with the definition of precisely these factors for effective work with talents within the organization in Russia.

The Russian context was an important factor in defining the key elements and their interrelationships for the MTM ecosystem. The experts identified the main differences between the Russian context and other countries of the world as the historical heritage and political system. From these emerged the main problems and prerequisites that formed the elements of the MTM ecosystem.

The respondents identified 3 main elements of the Russian context: diversity and inclusion, social securities (educational, healthcare system, civil rights), political system, and also added

opinions on characteristics that create a competitive advantage for firm: geographical location and infrastructure, mentality.

The element of diversity and inclusion in the Russian context emphasized the problems in this area, which lead to the fact that this element in the chain of interconnections becomes weak or medium. Although, in theory, it could bring many benefits to both the country and the companies.

Social securities and political system in Russia have determined the strong influence of the ecosystem factors we have identified above, such as government laws, restrictions, policies, programs and activities, diverse infrastructure, political stability, social and healthcare system, partnerships, network of universities and research institutions. They also explain why certain factors such as bureaucracy, corruption and nepotism are barriers to the development of companies in Russia.

Thus, having this reasoning, we can propose the final framework of the MTM ecosystem for Russia, where the strongest ties are indicated in red and the weakest in gray (Fig.4).

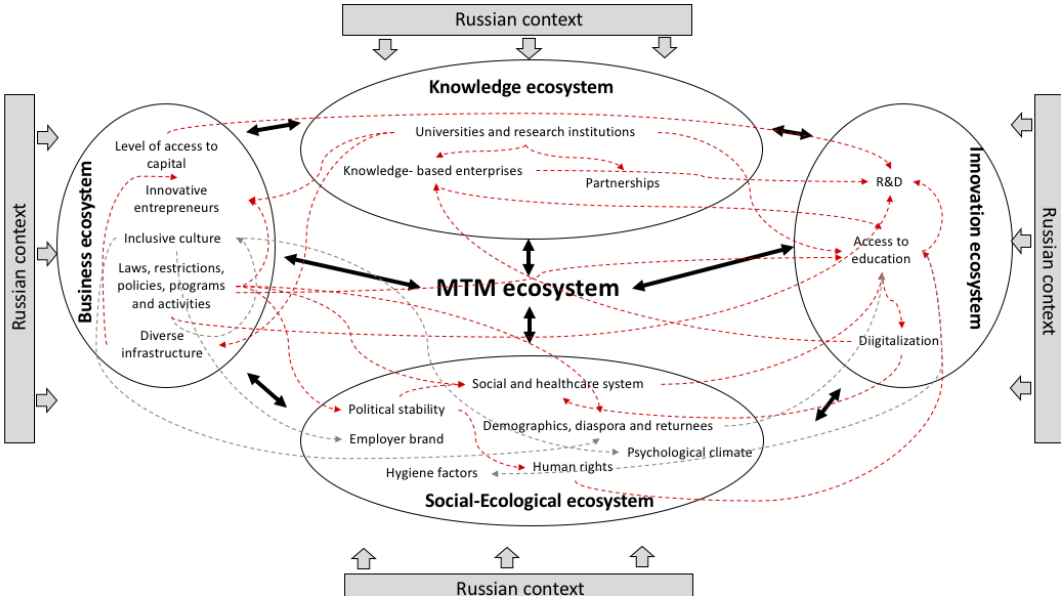

Figure 4. Final MTM ecosystem

It is possible to see the strongest connections in the figures (Fig 5,6,7).

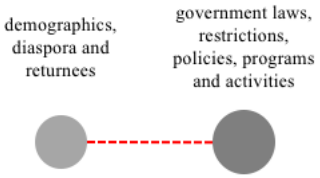

Figure 5. Cluster 1 to ensure freer movement of talent and a stronger culture of diversity to create innovation and exchange of experience

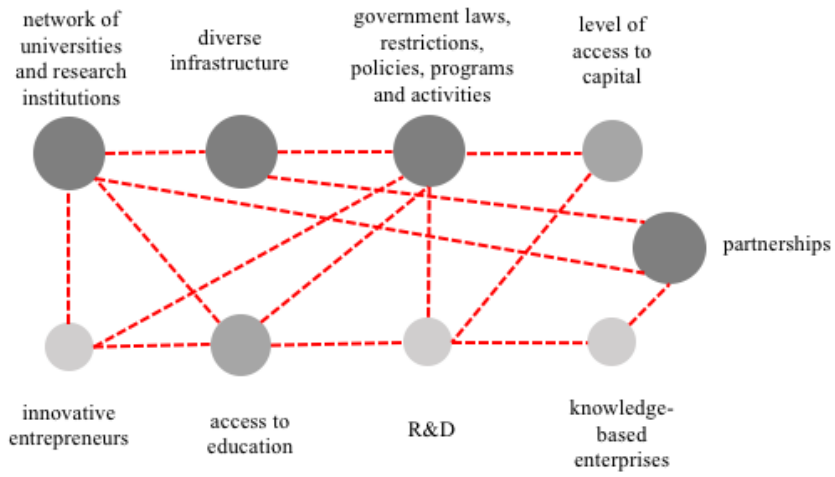

Figure 6. Cluster 2 to create an environment with the greatest the degree of attractiveness for talents and the development of their potential

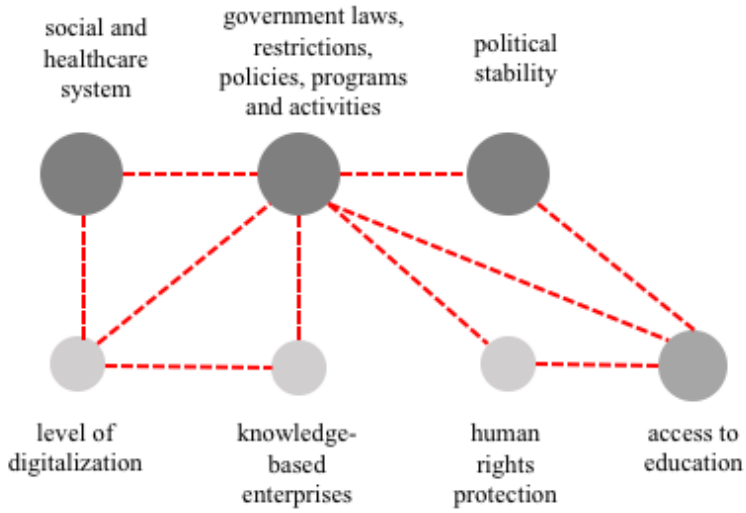

Figure 7. Cluster 3 to create a common comfortable living environment for talents

This framework can be used to determine the links that work most strongly on MTM in the Russian context, as well as in order to better target specific elements, to improve the situation with talents both within the country and within the company.

Understanding the identified basic relationships between elements and pain points, it is possible to develop basic recommendations. Given the fact that we considered two levels in the analysis, they can also be divided into recommendations for the country and for the firm.

One of the main and connecting elements is laws, restrictions, policies, programs and activities, which, according to experts, can both slow down and speed up MTM. This element has several important influences that can be worked out to create a better environment for the

development of MTM and help overcome the barriers we identified, corruption, nepotism and bureaucracy).

Firstly, these are well-developed and relevant laws for education in the country. As was mentioned more than once by the respondents, in Russia there is quite good access to education, but this is not enough for the formation of high-quality talents. New programs are needed that will contribute to the creation of the prestige of the teaching profession and will help create "new educational standards based on the interest, not punishment of the pupil / student" (respondent # 14). Moreover, reforms are also needed in the scientific sphere, in an area that is currently "overregulated" (respondent # 4). This will help talent really show their creativity and not be afraid to be punished for it.

Secondly, these are additional programs in social and healthcare systems. This element creates a comfortable living environment for talents and gives them a certain sense of stability in order to raise children in this country and not be afraid to lose everything at any moment (Holden, et al., 2013).

Thirdly, this is a more thorough work on legislation in the field of demographics, diaspora and returnees. There is a debate about demographics and fertility. Several studies suggest that maternity benefits are unsuccessful in raising fertility (Luci-Greulich & Thévenon, 2013), despite the fact that some writers claim that monetary child benefits stimulate reproduction by reducing essential expenses (D'Addio & Mira d'Ercole, 2005). Instead of specific individual initiatives, a package of political measures in favor of the family is clearly the most attractive from the standpoint of reproductive behavior, and the most promising are those aimed at strengthening the compatibility of motherhood with formal labor force participation (Mer, et. al., 2015). Moreover, "there is practically no policy on the part of the state to attract talent back from abroad" (respondent # 6), and work with the diaspora and migrants is also not in the focus of attention, since most quality temporary and low-paid. "The current laws force people to have a "black income", since it is very difficult to find a job legally (respondent # 6).

Recommendations for firms include work in several areas.

First, the main point for the low rating is the virtual absence of an inclusive culture. This is closely related to the activities of the state in the field of enacting laws that ensure equal rights for representatives of different genders and nationalities to work, which is related to the previous dimension. Work on the creation of D&I must be carried out through all important stages of the employee lifecycle - before application, during application and being an employee. To this end, basic guidelines for companies have been identified based on the time frame and capabilities of the company (Appendix 2).

Secondly, the development of partnerships with a network of universities and research institutions, knowledge-intensive enterprises to create an environment with the highest degree of attractiveness for talents and the development of their potential. This is included in the pool of recommendations for the development of D&I, but here we take a broader focus. Respondent #13 emphasizes:

"It will help companies to extend the recruiting pool and prepare talents in prior to hiring".

Thus, we have identified the main elements that are most important for the MTM ecosystem, sustainable connections within this ecosystem, as well as important elements of the Russian context, which increases or, conversely, decreases the influence of certain elements within the system. On the basis of this, recommendations and main directions of activity were developed, both for the state and for companies.

4. Conclusions and implications

4.1 Conclusions

The concept of ecosystems given new life has sparked a wave of new research in this area. The result of this work was the creation of a new framework - the MTM ecosystem, which includes several levels - the level of the country and the company, which corresponds to the initially set research aim.

Certain research questions also received interesting answers. So, studying the elements of the MTM ecosystem in country and firm levels, a pool of 18 elements was determined, which reflect various manifestations of the elements of other previously defined ecosystems, as well as supplemented with other MTM-specific contexts. Further, answering the second posed question, the relationships between the elements and their degree of relationship (strong-medium-weak) were determined. It is worth noting that the elements of the system interact not only at their own level (for example, at the country level), but also interact with the elements of the firm's level, thereby creating complex chains of relationships, thereby creating competitive advantages at both levels. Finally, the main elements of the Russian country-specific context were identified, which mainly negatively affects the MTM ecosystem.

Thus, within the framework of this study, the main opportunities and pain points for the formation of a successful ecosystem in today's Russian realities were identified, which can be further developed in theory, as well as the most stable bundles of elements for practical purposes, understanding at what point the desired value is created.

4.2 Theoretical contribution

This research contributes to several major areas at once. In the first place, the developed concept of the MTM ecosystem has never been proposed by anyone before, which creates a new direction for study in the field of ecosystem theory (Moore (2016); Arenal, et.al., (2020); Entezari, (2019); Clarysse, et al., (2014); Nambisan and Baron (2013); Fukamachi (2020)). The framework created by the author confirms the hypothesis about the interconnectedness of four existing ecosystems and their impact on the MTM ecosystem and their elements, which, in their essence, were the main basic elements for the development of a new one.

The framework of the MTM ecosystem also contributes to the development of an understanding of concepts about MTM. Thus, previous studies have mainly focused on several areas:

1) MTM definition and separation of this concept from GTM (Cooke, et al., 2014; King, et al., 2019; Lanvin & Evans, 2013; Khilji, et al., 2015). Here the study has added a new section to explore - elements and their relationship within a country-specific context;
2) General model that describes MTM (Metcalfe, et al. 2020; Collings, et al, 2018; Shafieian, 2014). Within the framework of this study, specific elements and their interrelationships were identified for a more targeted work with talent management practices, which brought the model to a new plane;
3) The interaction between micro and macro systems (Vaiman, et al., 2018). The study combined two levels - the level of the state and the level of the firm, and showed, using a specific example, how elements of different levels can influence and interact with each other.

Moreover, the analysis of the impact of country-specific contexts on MTM has become an interesting paradigm. There have already been many works in the literature on the context of countries and regions around the world (e.g. Al Ariss, et al., 2014; Ragazzi, 2014). This work contributed to the description of the Russian context (Grachev, et al., 2007; Muratbekova-Touron, et. al., 2018; Latukha, 2015; Holden & Vaiman, 2013), adding the connection and mutual influence between the elements of MTM and the context.

4.3 Managerial relevance

The current research gives an in-depth insight of the elements that are involved in the creation of favorable conditions for the development of talent in the Russian Federation, and also explains why there are certain problems in the country in this area.

The MTM ecosystem framework can become a practical tool that can be used in developing the necessary recommendations in the field of working with talent in Russia to create a competitive advantage in this area.

It can be used by various actors - the state and government agencies that develop policies in the field of social welfare of the population, as well as companies to create a sustainable talent pipeline.

With understanding of what elements and knowing how they interact, managers can change the outcome in their direction, realizing in time what certain influences on each element can lead to.

Moreover, an important addition is the focus on the Russian context, which was considered when building this model. Context plays a role of an invisible force that can distort or, conversely, improve even the best talent management initiatives. Knowing certain elements of the Russian context and the degree of their influence, it will be easier for practitioners to adapt borrowed initiatives and develop new ones that will be specially created for mitigation f Russian reality.

Based on the data obtained, recommendations were formed to solve the most pressing problems, which currently do not allow creating a stable network of talent management practices and forming a competitive advantage.

Thus, the proposed model will help practitioners in Russia to make more targeted efforts to solve strategic tasks in the field of talent management, both at the state level and at the firm level.

4.4 Limitations and recommendations for further research

Of course, it is worth noting, like any research, this master thesis also has its limitations and opportunities for further development of the topic.

The results of this study are based on a normal sample size (n = 19), considering all the strict requirements that were put forward by the respondents. Despite careful selection of respondents, breadth of geography, gender diversity, data analysis methods, the synthesis of these findings should be approached with caution. This constraint, however, does not invalidate the conclusions made from the data. It lays the groundwork for larger-scale study in the future. Perhaps with an even larger sample, it will be possible to get even more accurate and interesting data.

Moreover, an important component is the honesty and frankness of the respondents. HR is a very delicate topic for discussion, as personal data and corporate ethics often prohibit speaking one's opinion about global things without permission from the company. For mitigation of this risk, the security was complete anonymity (without specifying the personal data of the respondent and the name of a specific company).

Moreover, the context of a country can change, which also leads to changes in the relationship of elements and their relevance. The study was intentionally narrowed down to the Russian context, but with the further idea that it could potentially be scaled up to the contexts of other countries. Certain elements are very universal, but the degree of their importance, as well as the degree of interconnection of elements and elements of the country-specific context, will require additional analysis from researchers.

It should be noted that the main focus of this work is on the development of the theoretical basis of the MTM ecosystem in Russia and its application to the landscape of the current realities of reality from a descriptive point of view. In addition, the specificity and data limitations for this study did not make it possible to carry out a quantitative method. However, given the continued need for variability, further quantitative analysis to assess its explanatory power may be required.

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Appendix 1. Interview Guide

Dear respondent,

Thank you very much for your response and consent to take part in the interview!

The topic of my master's thesis is “Shaping ecosystem for macro talent management: the case of Russia”. The aim of this study is to identify the main elements and characteristics of a macro-level talent management (MTM) ecosystem that can form competitive advantages for the firm and the state.

This interview consists of 31 open-ended questions. In order for it to pass as efficiently as possible, I have prepared a list of basic concepts.

MTM includes activities aimed at attracting, mobilizing, developing and retaining the best talent in organizations. Specifically, MTMs are factors (eg, demographic, economic, educational, social and political) in countries that affect the quality and quantity of talent within and between regions. MTM takes into account many interrelated and interactive factors operating in the context of a given country, which directly or indirectly affect the availability, quality and mobility of people, skills and knowledge.

As part of my research, several factors have been identified that will be tested during this interview and can potentially determine the ecosystem under study:

Country level elements: government laws, restrictions, policies, programs and activities, demographics, diaspora and returnees, diverse infrastructure, political stability, social and healthcare system, human rights protection, environmental awareness, access to education, network of universities and research institutions

Firm level elements: Diverse and inclusive culture, innovative entrepreneurs, knowledge-based enterprises, R&D, level of digitalization

During the interview, you can add other elements at your discretion, as well as establish relationships between them and vice versa.

Interviewee profile:

- Location (city, region)
- Type of company (MNE, SME, Start-up) / or simply size of the company
- Sector
- Years of professional experience

- Current position within the company

1 RQ: How elements of MTM ecosystem are determined on country and firm levels?

Questions:

1) How would you define the concept of MTM? What could you name as MTM ecosystem elements?

2) Describe the ideal conditions, in your understanding, for the application of macro talent management practices, both at the firm level and at the country level?

3) How do government laws, restrictions, policies, programs and activities define MTM at the country level?

4) Do sociological indicators such as demographics, diaspora and returnees define MTM at the country level? How?

5) How does having a developed infrastructure affect MTM at the country level?

6) What impact does political stability have in defining MTM at the country level?

7) Does the social and healthcare system define MTM at the country level? How?

8) How does human rights protection affect MTM at the country level?

9) How does environmental awareness define MTM at the country level?

10) How are access to education, network of universities and research institutions reflected on MTM at the country level?

11) Does Diverse and inclusive culture define MTM at the firm level and how?

12) Does innovative entrepreneurs and the level of digitalization define MTM at the company level and how?

13) Does knowledge-based enterprises and R&D define MTM at the company level and how?

14) How strong is the influence of the external environment (for example, standards developed by global institutions or developed states) on the elements of the MTM ecosystem?

15) Are there any named or unnamed elements at the country and / or firm level that you consider specific to MTM in Russia?

2 RQ: How elements of MTM ecosystem are interconnected and may serve for competitive advantages of firms and states?

Questions:

1) How do government laws, restrictions, policies, programs and activities affect the creation of a Diverse and inclusive culture at the firm level?

2) How do sociological indicators such as demographics, diaspora and returnees influence the creation of a Diverse and inclusive culture at the firm level?

3) Is there a connection between the availability of wide access to education, a developed network of universities and research institutions and the number of innovative entrepreneurs in the country? Is this link important for creating competitive advantage at the firm and country level?

4) Is there a relationship between the state's environmental awareness and the level of innovative entrepreneurs?

5) Does political stability contribute to the development of social and healthcare system, human rights protection, environmental awareness and expanding access to education in the country? Does such a symbiosis of factors form a country's competitive advantage in the TM area?

6) Do you think there is a direct link between access to education in Russia and the improvement in the quality of teaching at universities and an increase in the number of developments in research centers?

7) Does the presence of knowledge-intensive enterprises in the country contribute to the development of innovations in an R&D company?

8) Does the company's proximity to universities, research centers, industry clusters and developed infrastructure create a competitive advantage for it in terms of expanding innovation and attracting talent?

9) How does digitalization affect the business environment, the level of knowledge in the country, and the socio-environmental factors in the country?

10) What elements of the MTM ecosystem, in your opinion, are the most important for the formation of sustainable competitive advantage at the firm and country level?

3 RQ: How country-specific context’ factors influence ecosystems for MTM ?

Questions:

1) In your opinion, how country-specific context’ factors influence ecosystems for MTM ?
2) How does the context of Russia differ from the contexts of other countries?
3) Do you know any Russian-specific context’ factors that can create a competitive advantage to firms’ TM strategy?
4) What factors inside and outside the company help you develop HR practices?
5) What are the barriers inside and outside the company that keep you from getting better?
6) What in Russia can influence macro talent management ecosystem on global and country levels?

Appendix 2. D&I initiatives for the three key job characteristics

Source: compiled by author based on companies' best-practices analysis