MANAGEMENT OF THE MENTAL RESOURCES OF THE ENTERPRISE

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ABSTRACT

The purpose of this study is to examine the relationships among transformational enterprise resource portfolio and mental aspect. An approach to systematization of elemental components of a resource portfolio based on the principles of effective management of the provision of enterprise resources is proposed. The claim that the components of a resource portfolio include components of a vector according to such parameters as mental, client, structural, and human is substantiated. The article is devoted to the identification of the factors of enterprise development and functioning in the conditions of transformation of the genesis model of generation.

Key words: Digitization, Network Interaction, The Fourth Industrial Revolution


1. INTRODUCTION

The experience of successful companies shows that their ability to use the resource base by enhancing resource value, allows for the formation of fundamentally new key competences, and the ability to create such value is transformed into sustainable competitive advantages. The absence of stable sources of resources, policies for rationalization of resource use, a program for identifying the elements of the resource portfolio and regulating the process of providing resources for the activity of the enterprise made the research problematic relevant. The current economic conditions are characterized by a rather rapid development of information technologies, which influence on all subjects of market relations. Particularly rapid development in recent years is caused by the processes of digitization of the economy, which act as a driving force, stimulating change in the corporate world. They are based on the introduction of new technologies, products, markets and resources. In this regard, there is a gradual change in consumer needs, ways to satisfy them and dissemination tools [1].

Considering digitalization it’s necessary to emphasize that today scientists haven’t provided a single definition of this concept. It is worth noting that the term "digitization" should be understood to bring the processes of collection, processing, transmission, storage of information in a single digital form and on the basis of creating new and improving existing types of goods and services. At the same time, the constant convergence of physical and digital dimensions is a tool for businesses stimulating integration in particular the creation of online products and services that affect consumer needs. Companies become innovators of the virtual value class by virtualizing business relationships. Such virtual values are gaining ground thanks to the continuous development of the Internet that is a virtual network that combines the connection of tangible objects or specialized devices and software allows the exchange of values between the consumer and the entity providing the products using the Internet. The consumer departs from the neoclassical perception of the market, the ways of interaction with the manufacturer, the methods of finding information about products [2]. The development of global digital trends makes the process of obtaining value faster and more comfortable, on the one hand, less secure, in some cases, on the other, so having a personal source that supports the ability to access the Internet allows you to make rational selection of products at the same time comparing with several sellers.
2. RESULTS AND DISCUSSION

The first thing that needs to be said is study found that the key idea of resource theories is to identify, systematize and effectively manage the resources of the enterprise. Thus, in the industrial economy, the basis of production of products and services are natural and labour resources, in the industrial - material, financial, entrepreneurial, in the post-industrial society, information, digital and mental are the most important. One should note here that in the conditions of innovative development of society, when the results of intellectual activity are decisive for any economy, the role of the intellectual resource increases significantly [3]. A number of key issues arise from the statement. For instance undeniable that the relevant trends necessitate clarifying the importance of displaying information, digital and mental resources and identifying their weight in today's business space. On the basis of evolutionary approaches to the classification of resources, enterprises were offered to allocate them in the following areas. There are: traditional - material and financial resources; intellectual - human, client, organizational and technological resources; Competent - management and mental resources, the structuring of which allows building a balanced resource portfolio of the enterprise. There are three main points of modern researchers regarding the vision of "intellectual resources" [4]. One position focuses solely on the nature of intelligence, that is, on the human factor, as an aggregate of knowledge, soft and hard skills, and individual abilities.

One should, however, not forget that many scientific have interpreted the concept a little more broadly and believed that intellectual resources should be regarded as the unity of carriers of intelligence and the results of intellectual activity. Moreover, point of view defines intellectual resources as a system of relationships about the production of new or the enrichment of knowledge and intellectual abilities of individuals. A modern enterprise focuses its strategic resources on an activity vector that maximizes profitability and business value, as well as on the basis of prioritizing business processes. However, we also agree that a resource component under the prism of innovative development, the most important in this aspect is the intellectual component. First of all, it concerns the products of intellectual activity, intangible assets, which are expressed in the forms of individual objectified knowledge and human capital, which form a set of elements of intellectual character [5].

Perhaps we should also point out the fact that our study we follow the essence of the phenomenon of "intellectual" in the economic life of society, that is, its human nature and define the intellectual resource as a set of mental and mental forms of expression of the abilities of workers, formed by the use of intellectual activity in the system of social relations in the process of social relations and production. It is the mental and informational resources that are actualized at the innovative and intellectual stage of the society's development and embodied in high-tech products and intangible assets [6].

The economy in the formation of the resource portfolio of the enterprise proved that the resources, as well as which are regarded as the external socio-economic and internal conditions (personality traits), ensure the effectiveness of the company [7, 8].

Important ideas formulated in cognitive psychology in the formation of the resource efficiency of the enterprise portfolio provides not only the solution of intellectual tasks, but are involved in the regulation of life in general, in situations of social interaction in solving life's difficulties [9, 10].

It should be noted that in a number of scientific papers on the other hand, focuses on the strengths of the person: the internal locus of control, stability, positive self-esteem, integrity, optimism, commitment to personal goals, control of the situation and the ability to withstand the risks associated with operating businesses [11, 12].
The mental resources include by M.E.P. Seligman, C. Peterson, cognitive personality traits that contribute to the success of the work with the knowledge and new information (creativity, curiosity, flexibility of thinking, interest in learning, wisdom - an understanding of the broader context and the general laws); vitality and persistence; social intelligence, leadership; ability to self-control; sense of beauty; sense of humor; religiosity. In developing the construct “employee’s psychological well-being, Carol D. Ryff claims that well-being is an objective equipping with the necessary psychological characteristics, such as self-acceptance, positive relationships with others, autonomy, focus, personal growth orientation, allowing the subject to function in all respects more successfully, than in their absence [13]. Based on the results of empirical studies, the components of mental resources were identified, namely: temporally stable (over several age periods) traits and traits that have age differences in severity. So, for example, purposefulness belongs to the former, while the desire for personal growth, openness to experience decreases with age.

One of the key directions in the psychology of work represented by the works of professional burnout, occupational health and psycho-emotional [14]. Initially, the concept of exhaustion was used in the early physiological theories of fatigue, which was determined by physical activity and was considered as a process occurring in the working body, that is, it was primarily a question of physical fatigue, now it is already included in the components of mental resources, the person’s ability and his physical readiness to resist crises associated with the activities of the enterprise and be always able to work. These ideas were further developed in the information approach to the formation of the enterprise resource portfolio in the context of professional stress resistance [15,16, 17]. The research concerned the analysis of individual variations in the implementation of various cognitive functions (attention, memory, thinking, decision making) as applied to the operator’s activity, especially in conditions of combined activity. However, even here initially it was mainly a question of the limited possibilities (resources) of the cognitive system of the subject of labor.

3. METHODS
A modern enterprise focuses its strategic resources on an activity vector that maximizes profitability and business value, as well as on the basis of prioritizing business processes. Considering the resource components under the prism of innovative development, the most important in this aspect is the intellectual component. First of all, it concerns the products of intellectual activity, intangible assets, which are expressed in the forms of individual objectified knowledge and human capital, which form a set of elements of intellectual character. From these facts, one may conclude that we follow the essence of the phenomenon of "intellectual" in the economic life of society, that is, its human nature and define the intellectual resource as a set of mental and mental forms of expression of the abilities of workers, formed by the use of intellectual activity in the system of social relations in the process of social relations and production. It is the mental and informational resources that are actualized at the innovative and intellectual stage of the society's development and embodied in high-tech products and intangible assets [18]. The most common argument against this is that in today's innovative knowledge economy, the development of quality staff parameters that are capable of forming a unique resource portfolio is relevant. It should be noted that physical health is a key factor in productivity, but the mental characteristics of staff is an important factor in the effective development of the enterprise.

However, given the increase in work stress, exhaustion, depression and mental health problems cause a decline in performance, which in turn affects the efficiency of the enterprise, in general. Thus, in mental health, it becomes more important for the economy, also under the pressure of the economy - to some extent two sides of the same coin. Mental
health is becoming more valuable and more scarce - the qualities that underpin the economy [19].

To draw the conclusion, one can say that generalizing scientific knowledge under the concept of "mental resources", in our opinion, should understand the individual aspects of the person, allowing the subject through the processes of conceptualization of events and their own mental capacity to maintain, develop and regulate their activity. In today's business environment, there is a certain reversal of mental resources, namely that we need good mental health to work, but we also need good mental health work (Fig. 1).

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Given the key postulates of the modern resource theory of entrepreneurship and the results of scientific developments in this field, it should be noted that in order to determine the strategic direction of the enterprise’s activities, it is first necessary to identify the components of the resource portfolio that will provide this development. The stage of modelling the structure of the resource portfolio of an enterprise’s activity is necessary in order to form optimal management decisions in the future, depending on the indicators of weight of individual resource elements [21]. Note that the effectiveness of the enterprise resource management model is determined by the ratio of the expected and obtained results with the VRIO matrix and RBV analysis. The proposed stages of the model reflect the continuous, cyclical development of the functional subsystem for managing the resource supply of enterprises in the context of the PDCA cycle and are aimed at the formation of reasonable long-term development priorities, increasing competitiveness and their market value [22].

4. RESEARCH
Among the most effective expert methods for solving poorly structured decision-making problems with difficult formalized conditions by T. Saati's method [23], called the “hierarchy analysis method”, which was used in this study. According to this method, a complex problem is decomposed, considered as a system, into simpler components (elements, parameters), followed by processing the sequence of judgments of decision makers (experts), by pairwise comparisons of the corresponding parameters in the form of a formalized matrix of priorities for their weight (Table 1), with an assessment of the relative degree of importance of these parameters in the hierarchy under study [24].

Thus, the main division is carried out on the basis of the basic properties of resources, which, in turn, allow determining the rank of the resource, is the basis for the formation of the basis and the superstructure of the plane of the pyramidal structure of the resource provision of the enterprise. The structuring and parameterization of the task must correspond to the basic properties of the resources, which thus form the plane of the system of management of resource provision of the enterprise activity. The decision-making matrix using the comparative approach and the weight coefficients of the elements of the resource tree, the indicators of which are coordinated with the help of T. Saati hierarchies [23], can also be used to evaluate the effectiveness of the results of the enterprise resource research. If structuring and parameterization are carried out taking into account the basic properties of resources, with the determination of their rank, this can be the basis for the formation of the basis and superstructure of the plane of the pyramidal structure of providing modern enterprise resources. One of the most important tasks of the modern economy is the deepening of
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Theoretical principles, methodological foundations and the development of applied recommendations for the formation and implementation of an effective model of resource support for the activities of real enterprises. The problem is solved by the example of domestic enterprises, on the basis of comprehensive studies of modern development trends and prospects for increasing their effectiveness.

The aim of the study is to develop a mathematical model for identifying key elements of an enterprise’s resource portfolio, which can be used to solve the problems of adaptive optimization of enterprise activity.

### Table 1 Resource Analytical Model

<table>
<thead>
<tr>
<th>Vector (W)</th>
<th>Element (R)</th>
<th>MR</th>
<th>FR</th>
<th>CR</th>
<th>OR</th>
<th>HR</th>
<th>TR</th>
<th>MR</th>
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</thead>
<tbody>
<tr>
<td>uniqueness</td>
<td>a_{11} a_{12} a_{13} a_{14} a_{15} a_{16} a_{11}</td>
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<tr>
<td>flexibility</td>
<td>a_{21} a_{22} a_{23} a_{24} a_{25} a_{26} a_{21}</td>
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<tr>
<td>rarity</td>
<td>a_{31} a_{32} a_{23} a_{34} a_{35} a_{36} a_{31}</td>
<td></td>
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<tr>
<td>promptness</td>
<td>a_{41} a_{42} a_{43} a_{24} a_{45} a_{46} a_{41}</td>
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<tr>
<td>reproducibility</td>
<td>a_{51} a_{52} a_{53} a_{54} a_{25} a_{56} a_{51}</td>
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<tr>
<td>accessibility</td>
<td>a_{61} a_{62} a_{63} a_{64} a_{65} a_{26} a_{61}</td>
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<tr>
<td>continuity</td>
<td>a_{71} a_{72} a_{73} a_{74} a_{75} a_{76} a_{71}</td>
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Source: formed by authors

According to this goal, the following tasks were set in the work:

- explore the features of building a resource portfolio of the enterprise;
- develop a mathematical model for identifying key elements of the enterprise’s resource supply based on a comprehensive assessment of the significance of the elements of the resource portfolio by expert methods;
- identify and systematize the elemental components of the enterprise’s resource portfolio as part of the solution to the problem of adaptive resource management of its activities based on the proposed mathematical model;
- justify the feasibility of implementing the developed mathematical model for identifying key elements of the enterprise resource portfolio taking into account the gender factor for solving the problems of adaptive optimization of management processes of enterprises in Ukraine.

In the work, based on a generalization of approaches to determining the nature of the category of “resources”, it was focused on the identification of strategic resources, which is due to the complexity and variability of organizational forms of conducting business activities. In the context of the relational concept, the most important strategic resource is time and space, the network distribution of which causes the process of converting dynamic capabilities to transcendental resources [25]. Exploring the paradigm of the formation of the resource supply of the enterprise in the context of resource theories, it is advisable to identify four vectors of the resource management process, namely: production factor resource flows, resource potential and strategic resources, which together form abilities, competencies and values [26].

Based on the results of the studies, the author defines the position regarding the structure of the enterprise’s resource portfolio. It is proposed to distinguish three basic components: the traditional component - material and financial resources; intellectual component - human, client, technological, organizational resources; competence component – managerial and...
mental resources. Their transformation must be coordinated with the criteria for optimizing resource management processes: uniqueness, rarity, flexibility, timing, accessibility, complexity of reproduction, continuity, ensuring the creation of resource value for all stakeholders. Theoretical generalizations allow us to characterize the resource supply of the enterprise as a complex and multifaceted process aimed at the rational use, growth and optimization of the elements of the resource portfolio for the formation of sustainable competitive advantages [27]. The key task is to create a basic algorithm for the development of a functional subsystem for managing the resource supply of an enterprise’s activities according to the PDCA cycle, namely: identifying resources, diagnosing the level of resource provision, systematizing resource flows, developing an action plan to create an organizational mechanism for implementing the relevant programs, assessing the effectiveness of resource supply activities and forming corrective actions. Modern market conditions require enterprises to make operational management decisions to determine production volumes, the selection of target markets for product sales necessitates increasing the efficiency of resource use and creating their optimal structure, which largely determines the effectiveness of economic activity.

This encourages enterprises to focus on using the opportunities of the market environment to search for innovative resource combinations in order to obtain sustainable competitive advantages. Structuring and parameterization of the task should correspond to the basic properties of resources, which thus form the plane of the resource management system of the enterprise. The decision-making matrix using the comparative approach and the weight coefficients of the elements of the resource tree, the indicators of which are consistent by T. Saati hierarchies, can also be used to evaluate the effectiveness of the results of research on resource security of an enterprise [28].

If structuring and parameterization are carried out taking into account the basic properties of the resources, with the definition of their rank, this can become the basis for the formation of the basis and superstructure of the plane of the pyramidal structure of providing modern enterprise resources.

Strengthening the position of domestic enterprises in the domestic and foreign markets depends on strategic management, sound regulation and the introduction of an effective organizational and economic mechanism for the implementation of progressive changes, the formation of a legal framework for effective innovation and investment policies. In this regard, a number of important issues that need to be addressed remain open for domestic enterprises, including: the formation and use of the gender component of the resource potential in entrepreneurship; restructuring and ensuring market transformation to improve the efficiency of business. In particular, according to the results of studies of the structure of resource costs and identification of the main elements of the resource tree, the optimal (adapted to current conditions) resource portfolio in the industry was calculated (Table 1). According to the weighting factors of the elements of the above resource portfolio, we can conclude that the following resources are the most significant resources for the brewing industry: material (21%), human (21%) and client (20%).
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Figure 1 Resource portfolio adapted for Ukrainian enterprises

At the same time, it should be noted that the total amount of organizational and technological resources in the industry exceeds the traditional norm, and amounts to 20%. In general, this trend in the industry is positive, because the modern business environment encourages the actualization of the processes of intellectualization.

5. DISCUSSION

The arguments we have presented in any period of global change, suggest that need for quality intellectual resources is actualized, enabling HR functions to be transformed in such a way as to gain real competitive advantage. Generation Z is the first digital generation. They are already influencing the emergence of an innovative economy and will have a huge impact on the development of the exchange economy (P2P). The relevant economic movement is aimed at exchanging goods and services without a third party. A prime example is the online lending platforms, Airbnb and Uber, which allow consumers to make money off what they have and share it with others. The P2P economy has spread to other areas of business, such as stocks, investments, real estate, fundraising and more. In this case, Gen Z helps drive digital business development as a model of WeGoLook, which combines new freelance talent for today's consumer demand for specialist services such as auto and fleet audits, insurance and financial services solutions, and individual tasks. In the course of the study, we highlighted the economic philosophy of P2P - a talent that shares its talent in digital environments, where Generation Z is not just a consumer group - it's the next generation of business owners. An enterprise can directly influence only its own results of operations, directly forming objective factors [29].

The right attitude of the new economy and the prospects for its development will facilitate further implementation of innovation, where most people will start their own businesses, which will further P2P economy. Generation Z offers greater opportunities to support businesses themselves as they are more flexible and adaptable to changing market environments. However, these trends do not preclude the use of other marketplaces, such as B2B and B2C, where business entities serving other businesses are already collaborating with Generation Z in the leasing, exchange and start-up fields. Taking into account the globalization factors of modern economy and market conditions, it is necessary to determine how to interact with Generation Z while preserving the authenticity of business in the conditions of the fourth industrial revolution. It should be noted that digital philosophy is spreading around the world: global consumers and businesses are also looking forward to platforms and solutions for the common economy[30] Fig. 2.
The methodological bases of determining the effectiveness of managing the resource supply of economic activity are relevant both from a scientific and practical point of view.

\[
\begin{align*}
    & f_m \rightarrow R_{Sm} \\
    & f_b \rightarrow R_{Sm} \\
    & f_s = f_b + f_m \\
    & R_{So} = f_m \cap f_b
\end{align*}
\]

Where, \( f_m \) is the sum of losses from a resource deficit, \( f_b \) is the sum of losses from a resource surplus, \( R_{So} \) is the optimal value of resources.

To date, the question of the classification and importance of a resource in the economy is debatable. Because, the shift of emphasis and composition of the resource portfolio is determined by the economic environment priorities and the evolution of the behavioural model of socio-demographic groups.

Numerous studies show that digitization and political and economic events influence the development of personal and behavioural model of socio-demographic groups, It is important to remember that it is undeniable that the management of intellectual resources over the next five years will be marked by three inevitable factors, namely: technological, in particular Cloud technology and artificial intelligence (AI); globalization, namely from developing countries; demographic changes, especially related to population aging in Western economies and the Y and Z generations [31]. In fact, in the context of the Fourth Industrial Revolution, a transformation is taking place that leads to increased productivity, restructuring of the labour market, an aging population, changes in career management, involvement of the workforce and changes in the architecture of business. The impact of external factors will be felt in such business units as:

- leadership components - value and transparency;
- Company structure - project-centered, virtual teams, cross-border joint ventures;
- Corporate culture - focusing on collaboration, customer relationships, employees and contractors;
- Management of intellectual resources - human resources, talent development and flexible work. In a tumultuous change, the need for information technology (IT), the so-called e-HRM, is being updated to create networks and support employees, managers and staff in their collaborative HR management activities.

One must admit that some businesses may use IT to:

- fulfilment of operational goals, such as automation of management tasks;
- relational goals that make it easy to connect line managers and employees to improve collaboration and customer service;
- creation of corporate values;
- performance management and compensation through it.

At the same time, some practices are concerned about the quality of mental resources, so in developed countries, candidates are sought through WebKit, which allows the hidden collection of information from unofficial, non-institutional, online sources, social networks and search engines to build employee portraits and deciding on his employment. First of all, the global labour market is a number of opportunities for multinational companies, but at the same time there are challenges for domestic companies due to increased competition for talent. In the context of the Fourth Industrial Revolution, mental resource management is a priority for creating an inclusive business culture driven by demographic change. Business entities must use these differences to create sustainable competitive advantage when building
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an innovative enterprise based on a new generation of staff with different mental characteristics.

![Generations And Forms Of Their Manifestation In Economy]

**Figure 2** Genesis of generations and forms of their manifestation in economy

Source: formed by authors

Therefore, the strategic role of intellectual resource management actualizes the creation of a humanistic business culture based on the use of digital technologies for:

- development, retention and involvement of staff, support of SEO managers in order to develop a culture of innovation;
- maintaining a reputation for integrity, where employees are respected and adhere to corporate values.

6. CONCLUSION

Furthermore, in modern business conditions, most enterprises operate in conditions of increased dynamism of the market environment, which is due to increased competition, increased consumer demand and the rapid acceleration of scientific and technological progress, where resources are the driver of the formation of competencies, values and dynamic capabilities of the enterprise. The relevance of the problems and the versatility of the “resources” category led to the presence of a significant number of multidirectional concepts, namely, classical, dynamic capabilities and asymmetry. With the development of resource theories, the importance of strategic resources is being updated as a set of unique resource properties that can provide long-term competitive advantages. In the context of the relational concept, strategic resources were allocated: temporal, spatial, and transcendental, on the basis of which the concept of synthesis was formed, based on the organizational ability to turn dynamic capabilities into transcendental resources. Consistency of production factors,
resource flows, resource potential and strategic resources increase the efficiency of resource supply for the economic activities of enterprises.

Today, with rapid changes and negative trends, there is deterioration in the quality parameters of intellectual resources, especially the mental components. Appropriate trends are capable of resisting innovative changes in business, which in turn is a negative phenomenon, which necessitates the need for businesses to update the importance of mental resources for competitive advantage. With the development of resource theories, the importance of intellectual resources as unique properties that are capable of providing long-term competitive advantages is actualized. In this regard, it is relevant to study theoretical approaches to the development of business entities on the basis of precisely the activation of intellectualization of business activity, taking into account the key factors for the development of business entities in the conditions of the fourth industrial revolution. The purpose of the article is to identify the components of the mental resources of the enterprise in the context of the evolution of the behavioural model of socio-demographic groups.

REFERENCES


