

# Modern-day Russia and the problems of the "silver" generation in the digital millennium

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**Abstract.** An important peculiarity of the future economy is principal change in the labor market structure determined by demographic factors one of which is significant increase of pension aged population. This age group becomes the key potential resource of increasing the number of employed people in all the developed and in some developing countries. Population with graying hair becomes a powerful resource for development of economy of a new type which has received a poetic name – "silver" economy. Studying the problems and prospects of developing the "silver" economy is one of the most actual scientific tasks of the modern time. The second important tendency of the modern era is vigorous development of technologies and transition to digital economy. Successful involvement in the changing labor market requires confident mastering of modern informational communicational technologies. However, this task is a certain challenge for representatives of the "silver generation". A review of foreign studies on the problems of the influence of demographic changes at the labor market of developed countries on the structure and quality of labor force is represented in the article; a dynamics of using modern digital technologies by representatives of the "silver generation" is described; the instruments of stimulating the use of modern information technologies in older age groups are distinguished. The analysis of demographic tendencies in Russia is conducted; the necessity of involving employable representatives of older age groups in the labor market is justified. On the basis of the empirical study undertaken by the authors, the peculiarities of value orientations at work places of representatives of different age groups are distinguished and characterized, and also key psychological characteristics of representatives of the elder generations of employees as members of work collectives are described.

The problem of the silver economy may be considered from the point of view of different aspects. The first one of them is focused on statistic analysis of the demographic changes that take place and also on studying various opportunities which appear as a result, such as introduction of new market segments and products adjusted to their demands, estimation of sales prospects and innovations. The second one aims at estimating the influence of demographic changes on national labor markets, estimating and forecasting the quality of

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labor force. Finally, the third aspect is connected with the questions of developing mechanisms of involving representatives of older generations in work activity, studying psychological peculiarities of representatives of different age groups, exploring the questions of their cooperation at workplaces, estimating efficiency of the leadership system taking into account this cooperation.

The represented study deals with the second and the third aspects mentioned above. A review of foreign studies on the problem of demographic changes at the labor market of developed countries influencing the structure and quality of labor force is represented in this study; dynamics of using modern digital technologies by representatives of the older age groups are revealed. Also analysis of demographic tendencies in Russia is carried out; the necessity of involving employable representatives of older age groups in the labor market is justified; on the basis of empirical study, the peculiarities of core values at workplaces of representatives of different age groups are revealed and characterized; key psychological characteristics of representatives of the older generation workers as members of labor collectives are described.

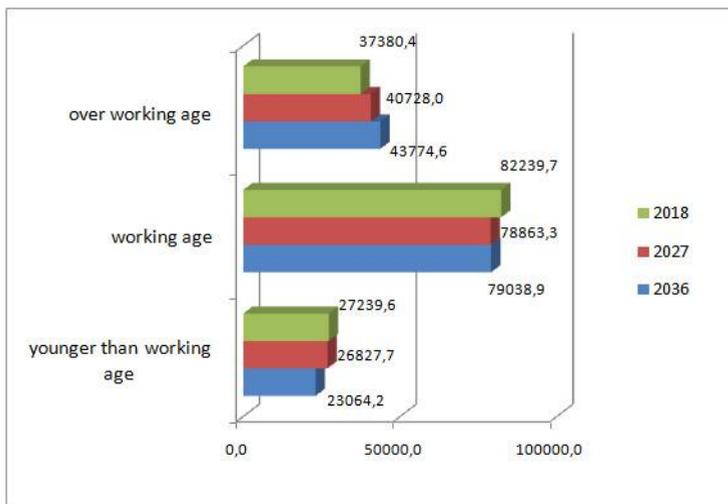
Demographic changes reduce the number of people of the employable age of the entire population size in all the developed and many developing countries which negatively influences the economic growth. From the economic point of view it is very important to divide population into three main groups: people younger than the employable age (as a rule, from 0 to 15 years old inclusively), people of the employable age (from 16 to the pension age accepted in the country) and people older than the employable age. Representatives of the first and the third groups are economically dependent. People of the employable age are, vice versa, economically active and take part in the production of goods and services. The dependent groups of population rely on material support for implementing demands in consuming goods and services. Changes in the age structure of population will influence the relation of economically active people and economically dependent people with potentially negative consequences for economic growth [1].

However, this negative tendency can be compensated, at least partially, by the way of increasing the level of employment especially in the older age group. The study carried out for the OECD countries has shown that most of them have serious possibilities for increasing the degree of using labor force including people from the older age groups [2]. The increase of the degree of involvement of older generations' representatives in labor market can become a serious instrument for opposing negative demographic tendencies.

At the same time, for using the resource of older generations it is necessary to change the existing institutions which regulate the labor market [3-5] and also improve the system of employment assistance and re-education of elderly people [6]. It is important to use a system approach to solving the problem of attracting and refraining representatives of older generations at the labor market. Simple changing of one indicator can't automatically improve the employment coefficients. In order to raise the efficiency of reforms, changes in the institute of employment should be accompanied by reforms in the institutes of professional education, pension support, etc.

An important issue in increasing social activity and life quality of the elderly is using digital technologies. Modern digital technologies assist social integration and enable access to commercial and state services. Introduction of digital technologies has changed life and worldview of the elderly. In April 2012, the Pew Study Center proved that more than half of the elderly (in the age of 65 and older) are the Internet-users. This indicator increased to 59% in 2014. The number of the Internet-users among the elderly has increased by 6% during the year, besides, 47% of the elderly have high broadband connection at home [7]. At the same time, representatives of the older generation experience certain difficulties in the process of mastering information and communication technologies.

The study by L. Damodaran confirms the fact that more and more representatives of the older generation become users of modern information and communication technologies [8]. The results of the study show that representatives of older age groups very much appreciate the advantages and independence they possess owing to using computers and the Internet network. It helps them to keep in touch with their family and friends, to find useful information; it simplifies everyday life (Internet shopping with delivery, online-banking, access to social services, etc.). However, at the same time, representatives of the given age category experience certain problems more often including those connected with understanding of the technical "slang" and the lack of necessary abilities for solving technical problems especially in the issues of computer security. In this regard, the demand for studying educating programs of computer competence and also getting respective technical support is very high in this age category. Besides, support for stimulating elderly people to use modern information and communication technologies is very important both on the part of family members and also on the part of local communities. Thus, organizing special training courses in local schools, libraries and consultation centers is an important instrument for decreasing the so called "digital divide" that is, reducing the break between people who use and those who don't use information-communication technologies especially in the older age groups.

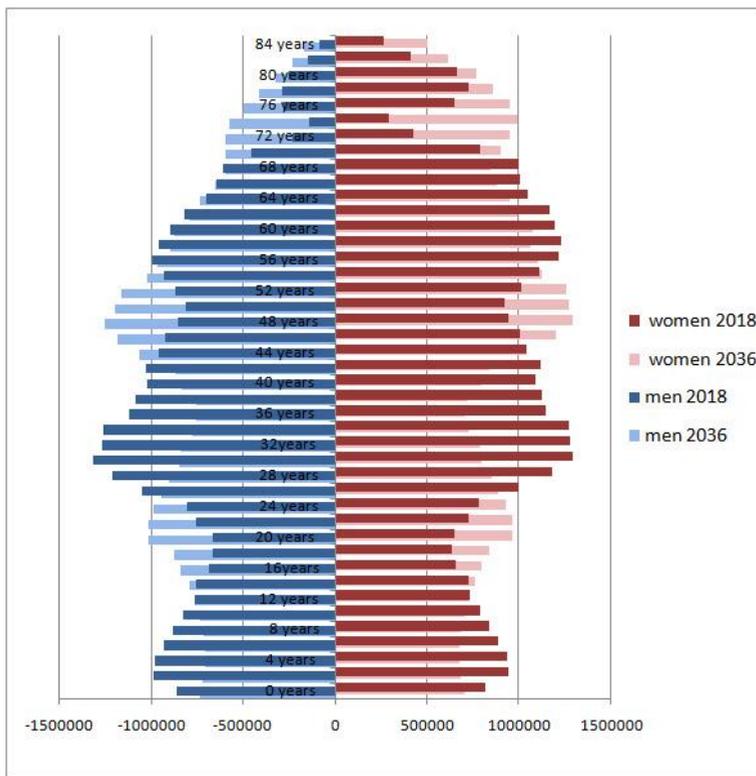


**Fig. 1.** The number of people of the Russian Federation on separate age groups in thousands of people. Source: The estimation of the Federal State Statistics Service of the Russian Federation.

Let us analyze the current demographic situation and the prospects of its development in the Russian Federation. According to the data of the Federal State Statistics Service, the part of population of the Russian Federation younger than the employable age in 2018 is 18.5%, the employable age – 56%, older than the employable age – 25.5% (Fig. 1). By 2036 the proportions between the data of the population groups according to the average variant of the forecast by the Statistics Service will significantly change: the part of the population younger than the employable age will reduce to 15.8%, the part of the population of the employable age will insignificantly increase to 54.2% (that in absolute values corresponds to reducing from 82239.7 to 79038,9 thousand people), the part of the population older than the employable age will increase to 30% (in absolute values it means the growth from 37380.4 to 43774.6 thousand people or by more than 17%) [9].

According to the data of the average variant of the Statistic Service forecast, the general number of people in Russia will not significantly change in the following 20 years (decrease by 2036 will make about 982 thousand people or 0.67%). At the same time,

structural changes in different age groups will be serious enough as we can see on the demographic pyramids built for 2018 and 2036 (Fig. 2). According to the average variant of the forecast, the number of children and teenagers younger than 15 years old will decrease by 15.3%, from 27.2 to 23.1 mln people in 2036 in comparison with 2018, the number of people aged 16-59 will decrease by 4.3% from 88.3 to 84.5 mln people. The structure of the older age groups will also change. The number of people aged 60-69 will slightly reduce regarding other categories: from 17.7 mln people to 16.7 mln people (by 6%). At the same time, the number of people aged 70-79 will seriously grow from 8.4 mln people to 14.5 mln people (by 72%) and the number of people aged 80 and older will increase from 5.1 mln to 7.1 mln people (by 38%). In general, the number of people aged 60 and older will increase from 31.3 mln to 38.3 mln people (by 22.4%), the number of people of the oldest age category of those observed by the Statistics Service – aged 85 and older – will also increase from 2.2 mln to 2.7 mln people (by 20.6%) [9].



**Fig. 2.** The supposed number of people in the Russian Federation for 2018 and 2036 (by the beginning of the year, people). Source: The estimation of the Federal State Statistics Service of the Russian Federation.

Thus, according to the analyzed average variant of the forecast, the number of people in Russia who belong to one of the most employable categories out of the older categories (younger than 69 inclusively) will slightly decrease and the general growth will be observed in the groups of people aged 70 and older. It is evident that these changes will significantly influence the structure of the Russian labor market. In this regard, the task of increasing the involvement of people aged 60-69 in labor resources of the RF becomes extremely urgent.

The analysis of the demographic tendencies leads to one more interesting conclusion connected with labor market. The predictable prospects show that the group of older employees (aged 50-65) may become a large subgroup of work force. It will be reflected in

the growth of the number of aged workers in companies and organizations and, consequently, it will lead to the growth of age variety at work places. On the one side the increase of age variety may precipitate the appearance of psychological tension and even conflicts at work places. On the other hand its influence may be positive for organizations-employers. This positive influence refers to the growth of informational quality, variety and significance for taking management decisions [10]. The importance of the information which circulates in the organization is connected with cognitive resources of its employees which increase together with the growth of demographic variety. Besides, people with different life and professional experience may have different outer and inner social networks and that leads to the growth of additional value of information [11]. Such informational variety may be especially useful for working with unstandardized problems and for searching creative decisions [12]. Thus, aged employees, as a rule, have knowledge and experience which are useful for increasing the efficiency of the group work. However, such human capital may be effectively used only in the environment where friendly and respectful relations between members of the collective are present [13].

An important demographic factor which is also characteristic of Russia is the growth of the number of women in older age groups. Such characteristics as emotionality, compassion, caring for other people, etc. are often distinguished among the other gender peculiarities of women at work places. These characteristics especially brightly become evident among representatives of older generations, the period of personal development of which was significantly influenced by traditional gender models of behavior [14]. On the other hand, together with development of the service sector the growth of the number of work places is observed that require having not only deep professionalism (or the so called hard skills) but also abilities that are traditionally related to women (sociability, amiability, empathy) which makes women-representatives of older age groups popular in certain professional spheres. Organizations-employers can gain benefits from rich experience and accumulated knowledge of older employees. "Soft skills" that are characteristic of this category are the key factors of success for many work places. Work is very important for representatives of all age groups, however, especially in the older age it takes on core-type significance which "structures peoples' way of life, forms methods for their cooperation with the material and social reality, defines their social status and self-respect" [15]. Thanks to the presence of such "soft" skills older employees are, on the average, as productive as younger ones.

Fast ageing of population connected with birth-rate falling and life-time increase requires special studying of personalities of aged people, their motivation and purposefulness of their interests. The suggestion that aged people wouldn't work, perform socially beneficial activities, express interest in social events is indefensible because in any age a person seeks to obtain new information, informational deprivation negatively influences their well-being. Any age is characterized with avoidance of hunger for information; pursuit of expanding information field is a natural need of a living organism's intellect. It is confirmed by the fact that elderly people actively master internet technologies, the Internet. Olga Golodets noted that in the period of 2011-2015, the years of computer competence, more than 500 thousand of elderly people studied this subject in Russia [16]. In 2012, the founder member of "Kommersant" and "Snob", Vladimir Yakovlev, started a project "The age of Happiness" in Russia which is devoted to active maturity. Stories of people who find themselves once again after 50 are presented on the site – they get new professions, get married, make business, set sporting records [17].

The generation of the 1960-es enters the "silver" age in the contemporary Russia; this generation has managed to reveal itself in new economic conditions and has achieved certain success. These people has mastered modern information technologies, gained foreign professional experience, got used to using creative approach to solving complex

social situations. This generation is not characterized by habitual, traditional for the Russia mentality model of behavior. It's most likely that this generation won't stop taking active part in social life after retiring. They will seek to keep the habitual consumption level, keep physical and intellectual activity and increase the quality of their life.

Interests, aptitude, peculiarities of a person, the ways of realizing his social activity are defined by many parameters, however, his age is the biologic axis that generalizes and directs all the personality's characteristics. Speaking about distinguish ability in selecting forms of professional and social activity it is necessary to take the peculiarities of value orientations of the elderly into account. In 2010-12, the authors conducted social research on the structure of value orientations of employees who work at the enterprise which transports gas in the Southern Urals region. The purpose of the study was revealing value orientations and social potential of employees of the pre-retirement and pensionable age who work in enterprises for a more productive use of their professional experience. The study of the structure of the employees' value orientations enabled determining leading values of older people and their level of social activity. 452 people took part in the social research: out of them – 175 (39%) aged 56-62; 258 (57%) aged 46-55 and 19 aged 62 and older (4%). The research was carried out anonymously, in a group and individually.

A questionnaire for estimating the factors of labor attraction adjusted to the conditions of the field was selected as the main methodical material for studying value orientations; the questionnaire contained 68 questions [18]. The methodology was modified according to the purpose of the research, names of a number of value orientations were changed and values were added that correspond to the age group. The term of value orientations as a factor that determines attractiveness of professional activity was used in this methodology. Value orientations in psychical organization of a person are intertwined with cognitive and will processes and make substantive component of a person, the basis of attitude to reality, the source of conscious selection of professional engagement and the form of social activity. In social psychology a person's values are considered from the point of view of forming a unity of a work collective, the value-oriented unity ensures solidarity of the work collective, its manageability and, as a consequence, it increases the efficiency of its activity.

The list of value orientations is approximately the same for people of different age and those having different professional interests. However, the hierarchy of values and ranks of significance differ depending on a person's age. Forming a hierarchy of values is connected with the peculiarities of a person's life journey, age, social roles. The priorities of value orientations enable selectivity in choosing ways and kinds of social activity by a person, the direction of his or her development and reactions in complex social situations. The values hierarchy of older people is already formed. But it doesn't mean that this formation of a person is static and constant. The main function of value orientations is coordination and adjustment of all psychical processes. Top-priority values ensure the basic vector of direction of a person's psychical activity.

The following factors of labor attractiveness were used as the main parameters of values in the conducted research: a creative and interesting job; favorable labor conditions; positive relations with employees; recognition from colleagues; developing one's own abilities; material and social procurement; integrity and perfectionism in working relations; developing every member of the collective; an active life position; rational organization of work; general success; health; achieving personal goals; difference in life positions of the members of the collective. As a result of statistic processing, the following indicators were calculated: aggregate score for each of the value orientations and the rank of each of the values for men and women.

A special methodology was used for estimating social potential [19]. Evaluating unrealized social potential enables predicting success of a person in the social sphere. The social potential of a person is determined as a combination of all the person's possibilities,

hidden and a distinct, necessary for any social actions. The social potential of a person enables creating motive power for his or her career in professional sphere. It is an integrated indicator of a person and makes multiple connections with other person's characteristics (intelligence level, motivation, values). The quantity indicator estimating the level of the unrealized social potential reflects also the ability of the test person to build a career in this or that social sphere. The hierarchy of value orientations, as an indicator of a person's focus, makes direct connection with social activity and realizing the person's social potential. That is why two indicators were evaluated in the study: top-priority values and social potential separately for men and women aged 46 and older.

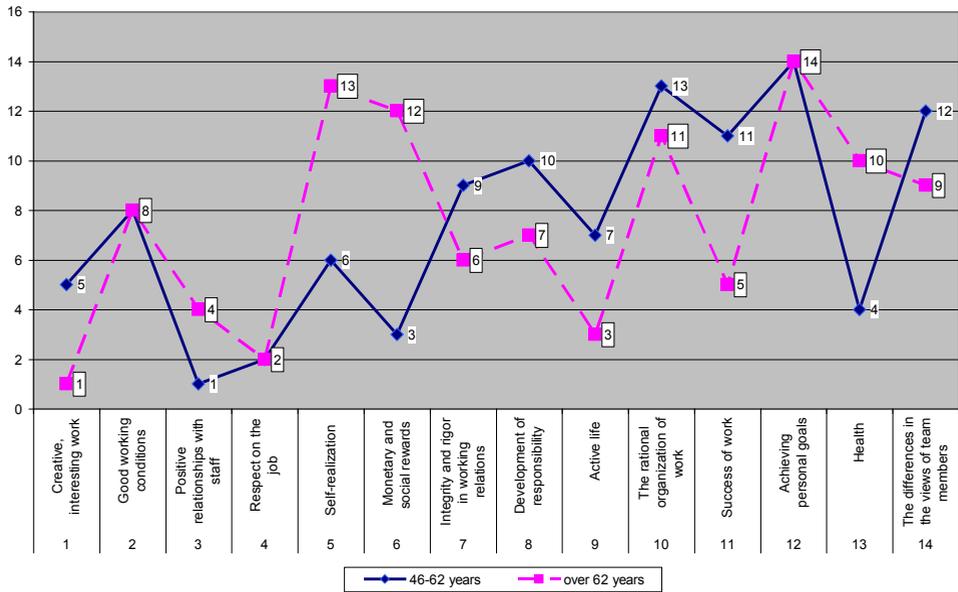
The conducted social research enabled obtaining the following results which describe peculiarities of values of older people and their social potential. The structure of value ranks of women of pre-retirement and pensionable age enables distinguishing the following values most significant for the given group (arranged in accordance with preferences): positive relations with employees; material and social procurement; health. Such value orientations as achieving personal goals, developing every member of the collective; differences in life positions of the members of the work collective; general success, have the lowest positions in the structure.

The conducted qualitative analysis of answers on each of the questions showed that women aged 46-62 strive for positive relations in any work collective; for material and social procurement and programs for health support. The need for warm friendly relations and favorable psychological climate in a work collective may be distinguished as the most important values. Duration and persistence of work in a certain team leads to an increase in the importance of the psychological climate in this work collective, which leads to a great deal of attention to the system of interpersonal relations at work. Age peculiarities are characterized by the inclination for keeping positive, stable relations, creating favorable basis for social contacts. The low rank of the "general success" value can be explained by the peculiarity of performed social roles of older women.

The structure of the ranks of men aged 46-62 enables distinguishing the following significant value orientations (arranged in accordance with preferences): recognition from colleagues; positive relations with employees; a creative and interesting job; developing one's own abilities; health. The following values have low ranks: achieving personal goals; differences in life positions of the members of the collective; developing every member of the collective. The conducted qualitative analysis of selections on each of the questions showed that men-employees aged 46-62 strive for favorable psychological climate in the collective; for developing one's own abilities, they want to upgrade their skills/qualification and professional competence. A strive for recognition from colleagues and a strive for warm, friendly relations can be distinguished as the most important values.

Comparative analysis of value orientations of outermost age groups of men and women aged 46-48 and 58-62 showed that the following values in the ranks has changed: a creative and interesting job; general success; active life position; health; material and social procurement. Increase in employee's age, changes in social status and retirement change the hierarchy of values: significance of creative and interesting jobs, general success and an active life position increases. It is interesting that the rank of values of material and social procurement and health decreases. It may be explained by the fact that material stability and social security has been achieved. Decrease in the rank of health importance is, probably, connected with stabilization of aged people's physical condition and understanding the finiteness of life. The revealed tendency of changes in values hierarchy is confirmed by the structure of value orientations of men and women aged 62 and older, which significantly differs from values of younger employees. The following values have the greatest significance in professional activity (arranged in accordance with preferences): a creative and interesting job; recognition from colleagues; an active life positions; positive relations

with employees; general success. The most insignificant value for the given age category is achieving personal goals.



**Fig. 3** – Ranks of values of all the surveyed people of different ages (the lower the rank position, the greater the significance of the value having a corresponding rank).

Comparing the ranks of values of two groups of different ages (46-62 and older than 62) is represented in Fig. 3. The analysis carried out showed that employees older than 62 have an active social position in life. They aim at having creative and interesting jobs; recognition from their colleagues; increasing their personal authority; favorable psychological climate in their collective. It should be noted that general success of a work collective has great significance in the lives of these people which refers to a developed feeling of team spirit and mutual aid. Material and social security, health, rational organization of work is valued less than by people of other age groups.

Older generations demonstrated changes in the hierarchy of values; they refer to positive relation to others, activity in achieving collective goals and quite strong altruism in relation to labor – they are less interested in gaining material values and more interested in achieving general success. Such distribution of value ranks in the group may be explained by great life experience and wisdom of employees of older ages. The information revealed may initiate using older employees as mentors for young people.

Special attention should be paid to the fact that the younger employees are, the higher they estimated material and social security and the lower they estimate principality and perfectionism in labor relations. This fact is interesting from the point of view of using professional potential of people of older ages. The analysis of the distribution of value ranks in the entire set enabled revealing psychological regularity: the older the age, the fewer employees are afraid of hardships in their activity and they display more personal responsibility.

Exploring social potential of employees of pre-retirement and pensionable age showed the following results. In the set of women of 46-62 years old: the average indicator of unrealized social potential is 51.2 st. points. In the group of men this indicator is 48.7 st. points. The difference is not statistically important. It is interesting to note that this indicator has greatly increased for the group of people older than 62. Unrealized social

potential of older employees is 61.8 st. points. This fact enables predicting high social activity in the group of employees older than 62.

Generalizing the results we can make the following conclusions:

- The revealed mechanism of increase of personal responsibility, reducing fear of hardships in work together with increase in employees' age, both for men and women, is a hidden potential for the "silver economy".
- The older generation of employees may reveal its unrealized potential as specialists-consultants, mentors of young people.
- Unrealized social potential of employees is the basis of activity for people of this age in public and social directions with a significant part of taking creative decisions.
- Generalization of one's own life experience, wise relation to life and understanding its finiteness lead to a more active life position, increasing interest in creative labor aspects and positive and altruistic relations with other people.
- Fixation of employees of older ages on trustworthy interpersonal relations in a collective gives opportunities for forming favorable psychological climate in the work collective, a new opinion on conflict resolution and principles of creating a team.

The results of the study carried out reveal positive sides of aging of the population. Many production enterprises already actively use the potential of the older generation. However, in general, modern society is still focused on the values of young age, considering aging as an inevitable restriction of social activity. Appeal to "silver economy" is inevitably connected with the use of unrevealed potential of the older generation and attracting a significant layer of society to its enrichment and development. If earlier the aging labor force could cause problems for national labor markets in connection with the supposed decline in productivity – today the results of social economic development enable (at least in developed economies) not only reducing demographic risks of performance degradation but also benefit from the qualities connected with the characteristics of today labor force. Modern companies should transfer their thinking from the position "how can we reduce the inefficiency of the human capital caused by demographic changes" to the position "how can we use the rich human resources which are offered by the modern generation to maximum effect".

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