

**REPUBLIC OF AZERBAIJAN**

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**ABSTRACT**

of the dissertation for the degree of Doctor of Philosophy

**LABOUR PROTECTION IN THE ENTERPRISES OF  
CONSTRUCTION INDUSTRY AND THE WAYS OF  
EFFICIENT USE OF HUMAN RESOURCES**

Speciality: 5311.01 – Organization and  
Management of Enterprises

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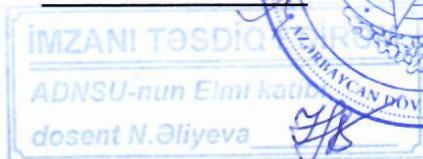
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## INTRODUCTION

**The actuality and the usage rate of the research work.** After Azerbaijan re-established its own independence, 294 billion dollars of investments have been directed to the government's economy from different sources during 1995–2021 years, especially starting from the second half of the 90<sup>th</sup> years of last century that, 47,6 per cent of it were foreign investments. Approximately half of latter have directed to reformation of non-oil sector of government. As the result of carried successful economic policy, strategic currency reserve is more than 53 billion dollars.

Government budget of Azerbaijan is investment and social oriented. The strengthening of social defense of government, the value given to the human factor has preserved its actuality in all times. So that, the average monthly salary has increased 9 times, pensions 12 times, the social infrastructure has been newed and developed mainly in the government during the last 19 years. Intensive continuation of this process in the next decade is considered. The great opportunity of our country is the liberation of Garabagh and Eastern Zangazur where have been under the occupation approximately 30 years.

Restorations and reconstructions with large, fast and international standards are underway in the noted territories during a year after the magnificent victory. The laws confirmed with some Decrees and Orders signed by Our President in recent years, setting up the society based to the dynamic, inclusive and social justice, the formation of competitive human capital and providing of labour safety, healthy life standards of citizens in the National Priorities for Socio-Economic Development and Development Strategy are the necessary problems that putting forward and pending solution up to the 2030<sup>th</sup> years. As a result, weight of them falls on the construction sector that considering the leading layer of economy.

According to official statistic information, share of construction sector organizes 7,7% in GDP (Gross Domestic Product), 7,3% inside the busy population, 19,1% in the investments directed to the core capital in 2020. Only in 2010-2020, 119,4

billion manat investment has been directed to the construction and installation works on the republic. Large-scale residential houses used in the territory of republic, created new enterprises, social infrastructure facilities have provided at the expense of construction sector. 266 enterprises are busy with the production of large-scale construction materials in the country. More than 12 thousand employees work there. Completely, number of hired employees consists of 134 thousand people in the construction sector. But it is difficult to claim the effective arrangement of their labour for different objective and subjective causes. In recent years, numerous national standards for the protection of labour have used; compulsory insurance has been applied in loss of ability of work in the result of unfortunate situations in the factory. Nearly 60% of business entities in the construction sector have the micro entity and small entity status. Number of large construction organizations is very few. Staff shortages in the construction have reached to high level. Only in 2020 year, 79,5 thousand people (59,3% of hired employees) have been dismissed. Amount of resigned employees with own petition consists of 76%. Though the amount of the workers, hired employees in unfavorable labour situation during a year consists of 1,2%, the number of them has been 1606 employees by decreasing. The average salary for a month of the employees who work in the construction is significantly lower than the same named indicator for republic. Non-formal management system proceeds in the construction. According to official statistics, though 605 billion manat aids have directed to the fulfillment of the labour protection measures in the fields of economic activity only in 2010-2020 years, 2547 employees have lost the ability for working and died in the factories. 60% of them or 1528 employees belonged to the construction sector. All of these factors show that, the human resources aren't used efficiently in the construction sector of Azerbaijan.

Redeeming to the new management challenges, including the demands of the social defence of employees who work in these enterprises, the defence of labour maximum is necessary for gaining image and being competitive of the enterprises of native

construction industry at the international level in the situation of modern development of economy. Otherwise, to succeed and to achieve to the economic development in the market isn't possible. So, to do researches reflecting the theoretical and practical results themselves which coincided to the challenges of modern period, embracing the realities themselves in the field of construction is necessary needed in this field. It must noted for the sake of justice that, various aspects of effective usage from the human potential in different fields of economy have been researched in the works of economic scientists and researchers of Azerbaijan and foreign countries in the last decades. Approaches for that problem have been researched in the works by Sh.M.Muradov, T.A.Guliyev, A.Kh.Nuriyev, M.J.Atakishiyev, T.N.Aliyev, T.G.Aliyev, T.H.Huseynov, I.N.Mammadov, V.M.Shiraliyev and A.M.Mehdiyev, G.S.Suleymanov, G.A.Saffarov, M.I.Ilyasov and etc. in Azerbaijan, from the foreign countries – A.D.Burkeev, K.A.Volkova, N.A.Gorelov, A.P.Yegorshin, D.A.Ivantsevich, A.I.Kravchenko, S.Sh.Levina, Y.G.Odegov, E.R.Saruhanov, M.Kh.Tima, S.V.Shekshnia and etc.

Last years, the dissertations for getting the degree of Doctor of Philosophy dedicated to the social-economic problems of construction enterprises have defended in the Defence Councils operating at the Institute of Economy of Azerbaijan National Academy of Sciences and in some universities. The issues belonging to the management of construction sector have discussed largely and some important advices have introduced in numerous scientific-practical conferences holding in Azerbaijan.

It is needed to note without decreasing the importance of carried researches that, the issues of usage the human resources efficiently have been researched in the context of compliance to the measures of security of labour protection, work condition in the enterprises of construction industry and the necessity of usage of the scientific-methodical and practical advices in this direction has been conditioned the actuality of the chosen subject.

**The aim and the tasks of the research.** The aim of the dissertation work consists of exploring the theoretical-

methodological aspects of system of the management of human resources in the context of labour protection and preserving of security, to appreciate the existed situation of organization of that related system by analysing in the enterprises of construction industry of Azerbaijan, to reveal the opportunities of appropriate reserves, to prepare the methodical-practical proposals and advices based scientifically for improving the mechanism of usage from human resources efficiently there. For realizing this aim, the following duties related logically with each other have been set and considered to perform:

- To comment the theoretical-methodological views of development and formation of human resources in the enterprises of construction industry on the basis of generalization of existed scientific works for the researched subject of the scientists of Azerbaijan and foreign countries;
- To research the efficiency of social-economic reserves methodologically in the management of human resources in the enterprises of construction;
- To analyse the characteristic features of construction industry, institutional changes happening inside it, the structure, intensity and activity of human resources in the enterprises of construction industries on the base of generalization of the official statistic information, the results of carried questionnaire;  
To evaluate the dependence among the usage indicators from the human resources econometrically to the expenses for the labour protection in the construction sector;  
To elucidate the results of monitorings of satisfaction of the workers in their activities in the enterprises of construction industry;
- To prepare the practical advices belonging to increasing of efficiency in the context of labour protection of the system of management of the human resources in the enterprises of construction industry.

**As the object of the research,** the enterprises of large construction industry of the Republic of Azerbaijan (“Gilan Inshaat”,

“Accord”, “Azinvest”) perform.

**Subject of the research** arranges the social-economical aspects of system of management of the human resources in the context of compliance to the labour protection and security in the enterprises of construction industry.

**The methods of the research.** Complex-systematic approaches, comparative and statistical analyses, analogical and generalized methods, logical, graphical and mathematical-statistical appreciation of information, also questionnaire, expert evaluation have been used for defining the effective usage ways of human resources in the context of labour protection in the enterprises of construction industry. The annual collections of the State Statistical Committee of the Republic of Azerbaijan, the reports and references of the Ministry of Economy, Ministry of Labour and Social Protection of the Population, State Committee for City Building and Architecture of the Republic of Azerbaijan, State Employment Service, Employment Department of Baku city, the results of reports carried by the author in the large construction organizations in the city of Baku, the materials of republic and international important scientific-practical conferences dedicated to the researched issue, internet sources and other official issues arrange the base of information for realizing the logical results of those methods.

- **The scientific novelty of the research:** For the first time, the efficient usage from the human resources in the context of providing the labour protection and security in the construction sector of Azerbaijan has been researched in the organic connection and on the base of systematic approach;
- The tendencies appeared in the process of changing of the existed conceptions about the development of the system of management of human resources in the construction sector have been defined (1, s.50-54);
- The necessary reserves have been classified for increasing the efficiency of management of the human resources targeted to achieve the last aims of construction enterprises (7, s.101);
- The economical model of dependence among the labour indicators and expenses for the labour protection and security in the construction sector of Azerbaijan has been given (4,

s.69-70);

- For the first time, the methodology of calculation of efficient usage from the human resources has been used by defining the indicators of system on the economic, social and labour protection with the method of expert appreciation in the construction sector (9);
- The principal model of mechanism of state regulation of the efficient usage from the human resources in the context of providing of the labour protection in the construction sector has been suggested (8, s.263);
- The exemplary classification of events being necessary for execution on the labour protection and improving the condition in the enterprises of construction industry has been formed (3, s.29-30).

### **The theoretical and practical importance of the research.**

The research work assumes the important theoretical-methodical and practical significance for some aspects. So that, its materials and scientific results can be used in the preparation of program containing the organizational-economical, social and ecological complex events for the providing of labour protection and security, the motivization of labour, the decreasing of worker fluidity, efficient usage from human resources in the enterprises of construction industry, in the compiling of the standards of new enterprises, in the defining of criteria and rules of appreciation of the influence construction activity to the environment, in the providing of social minimums for the creation of safety work condition, in the secure of the territory of construction from the technogenic dangerous influencies.

The results of the research work can be used at the higher education institutions, in the study of the subjects as economical analysis, the economics of construction, security in construction, management of human resources, as well as in the usage of aimed projects in the scientific-researched organizations.

**The approbation and the applying of the work:** The results and advices from the dissertation work have reflected in the scientific journals published in Azerbaijan, as well as in some foreign countries during 2018-2022 years. The theoretical and scientific usages have

reflected in the “Scientific works” of Scientific-Research and Education Center for the Labour and Social Problems of the Ministry of Labour and Social Protection of Population of the Republic of Azerbaijan, in the “Scientific Works” of the Institute of Economics ANAS, in the journal of “Scientific and Pedagogical News” of the University of Odlar Yurdu, in the journal of “Customs sciences” published in the Ukraine and in the “International Research Journal” published in RF. The main provisions and scientific results of dissertation have been reported in 3 international scientific-practical conferences.

The advices prepared for increasing the efficiency of usage from human resources, protection and security of employees, the motivization of their labour coinciding to the last result of construction work in the enterprises of construction industry have been tested in the process of improving the system of management of human resources in the factories of producing the modern construction materials of “AAS” and “DIAS” LLC, in the construction companies as “Gilan Inshaat”, “Accord” and “Azinvest”. The approaches, methods, models and advices given in the research work have been introduced to the factory of modern construction materials as “DIAS” LLC and appropriate application certificate has got (arayış verilibdir: №4-A,07.02.2020-ci il).

**The volume of the structural sections of dissertation separately and the general volume with the sign:** Dissertation work consists of introduction, three chapters, conclusion, the list of 129 literatures and additions. 23 tables, 8 pictures and 11 diagrams have been formed in the work.

**General volume of the dissertation with the sign:** the page of title consists of 624 signs, contents consists of 2831 signs, introduction is 19 614 signs, I chapter is 107 632 signs, II chapter is 90 678 signs, III chapter is 54 463 signs, conclusion is 10 329 signs, the list of literature is 19 350 signs, additions are 4 085 signs. The volume of dissertation consists of 286 147 signs with the exception of the tables, pictures, diagrams and the list of literature.

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## **THE BASIC SCIENTIFIC PROVISIONS GIVEN TO THE DEFENCE**

**The 1<sup>st</sup> provision: The defining of the construction enterprises by considering the features and exactness of notions as “human resources” and “efficient usage from the human resources” in the context of the methodological aspects of increasing of efficiency of the usage from the human resources of the enterprise is necessity (p.15-22) and (p.45-47).**

Meantime, the optimalization of the number of employees in the process of labour and social development of human resources, applying of incomplete week of work, the creation of increasing in some employees categories and the creation of deficiency in the others, improvement of majors of important part of employees again, the necessity of providing of needed work condition for them are such kind of issues. Thus, the issues of the search of new approaches directed to the solution of the problem of increasing of efficiency of the usage from the human resources in the industrial enterprises (in the enterprises of construction industry in our research), coincidence to the modern economic changings must be researched completely.

Onesided approach hasn't been formed to the explaining of the concept “the efficiency of usage from the human resources” among the economic scientists related to the human resources. The Russian economist N.A.Gorelov has expressed this notion more completely as following: “The reserves of increasing of the efficiency of usage of the human resources” is related to the completeness of expression of conditions and needed factors defining the reality and this process”. The emergency of damages is the objective, regular and durable process. The necessity of defining and using the social-economic potentials of efficient usage from the human resources in the construction sector is conditioned from the needs, the existed reserves ensuring them, the factors increasing the efficiency of the possible and factual levels. The increasing of efficiency of the labour resources in practice depends on the factors that conditioned the defining and using of the needed reserves durably, systematically and purposefully by considering the demands of social-economic

development of state firstly. In large meaning to say reserves, the potential usage of necessary elements is understood which characterizes the level of today's development of human reserves and productive powers and attitudes of production and conditions with maximum efficiency. In short meaning, this reserve – is the difference between the real and potential opportunities.”

The human security in the process of labour is the machine, tools, equipment, technological methods and technical factors before everything. The influence of technics is many-sided to the security of labour activity and contradictory enough. The scientific-technical progress, the improvement of production process and equipments helps to the upgrade of labour condition objectively, increases its security. But it causes to unpleasant changings in some situations. Specially during the technique turns to the main source of dangerous and harmful production factors. They can cause to certain traumas or diseases in certain situation. The technological processes, equipments define the sanitary-hygienic characteristics of environment of the production surrounding the human mostly (air purity, the condition of lighting, level of voice, vibrations and etc.). The situation of the sanitary-hygienic factors not only causes to the heaviness of only labour, but also influences the healthy of employees. And it causes to the appearance of traumas.

**The 2nd provision: The social-psychological environment, the level of arrangement of labour protection in the labour collectivity influences to the character and essence of the labour, to the efficient usage from the human resources importantly. The social psychological environment defines the productivity of employees in the enterprises (p.50-55).** The traumas of production appear in the result of the false of employees, false activity mostly. The disadvantages in the situation of technics and technology, production and labour can cause to the first group. The second group is related with the psycho-physiological conditions and subjective factors of labour condition (weight, tension) directly. The false activity can be related to the personal quality. The security of labour not only depends on the elements of the system “human-technique-environment”, but also depends on their opposite relation. The organizational factors influence

to both the improvement of the subjective security and increasing of objective security of productive process, equipments and labour completely.

According to this, the true classification and characterization of necessary opportunities is needed for the efficient usage from human resources and analysis of activity of enterprise.

To consider the factors of active and passive human reserves is very important in the direction of adjustment of the responsibility.

Opportunities of usage from human resources are necessary to realize to improve the duties as the structure and quality of important work places, of the attitudes of work places and employees, the arrangement of work process, the improvement of the economic and social condition of employees in the direction of the fields of incarnation of these factors firstly.

The necessary opportunities for the formation of human reserves here surrounds the duties as improving the quality of these reserves, arranging of training of the staffs – retraining of them, improvement of the majors, development of the direction of profession of the youths, improvement of the level of education of employees.

**The 3rd provision: The appreciation of characteristic features of industrial fields, the institutional changings happened inside it, the situation of usage from staffs, analyzing the amount of unhappy events, intensity and the situation of organisation of labour protection is needed for revealing the reserve opportunities on the efficient usage form human resources in the context of labour protection and security in the enterprises of construction industry of Azerbaijan(p.65-88).**

The author shows in his researches by using from analysis methods that, the amount of employees working in the construction sector has reached to 357,5 thousand people by increasing 123,3 % during 2010-2020 years and the share in the GDP of the construction sector arranges 7,7%, inside the employee 7,3% and in the investments directed to the main capital 19,1% in 2020. Amount of hired employees arranges 134 thousand people in the construction sector. 266 enterprises produce construction materials in country.

13,2 thousand employees work in 157 common enterprises activating in the construction sector. 8247 individual entrepreneurs produce the production and serve in the construction sphere. 12,6 thousand micro and 780 small entrepreneurs subjects exist in this field. The share of medium status enterprises is 24,6 %, the share of large companies is nearly 5,0 % inside all of the enterprises. Only in 2018-2020 years, basic changings have happened in the structure of subjects of entrepreneur in the construction sector (diagram 1). If we look through the structure of the types of activity of the construction work, it becomes clear that, 47% of them is belonging to the construction of buildings with 29,1 % of them shared to specialising enterprises, 23,9 % of them shared to civilian enterprises in the country in 2020.



Diagram 1. The changings happened in the structure of entrepreneur subjects in the construction sector of Azerbaijan – with per cent (it has compiled on the official statistic information by the author).

The changings not being available from the ecoyand social feature happen in the structure of employees working in the construction sector (Table 1)

Table 1.

The indicators characterising the act of its own power in the construction sector of Azerbaijan

Indicators	Years				
	2015	2017	2018	2019	2020
The amount of hired employees, one thousand	95,3	101,7	106,2	119,6	134,0
The employees accepting to the work during a year, one thousand	29,6	69,7	68,9	71,5	89,8
Special weight of them inside the hired employees, with per cent	31,1	68,5	64,9	59,8	67,1
Dismissed employees during a year, one thousand	45,4	53,2	60,9	56,6	79,5
Special amount of them inside the hired employees, with per cent	47,6	52,3	57,3	47,3	59,3
Dismissed employees by reduction of staffs, with per cent	2,5	2,1	3,0	1,3	1,1
Dismissed employees with their own request, with per cent	75,8	52,1	62,1	77,9	76,1

*Source: Labour market. Statistical collection. Baku, DSK, 2021, p.37-41. (it has calculated by the author).*

As seen from the table, special amount of employees dismissed with their own request changes among 52,1% and 77,9% in 2015–2020 years. The average monthly salary has reached to 791 manat by increasing 156,3% and has been 11,7 % higher than the same indicator over Republic in the construction in 2010-2020 years. As a result, it has positive influenced to the fluidity of employees. (Diagram 2)

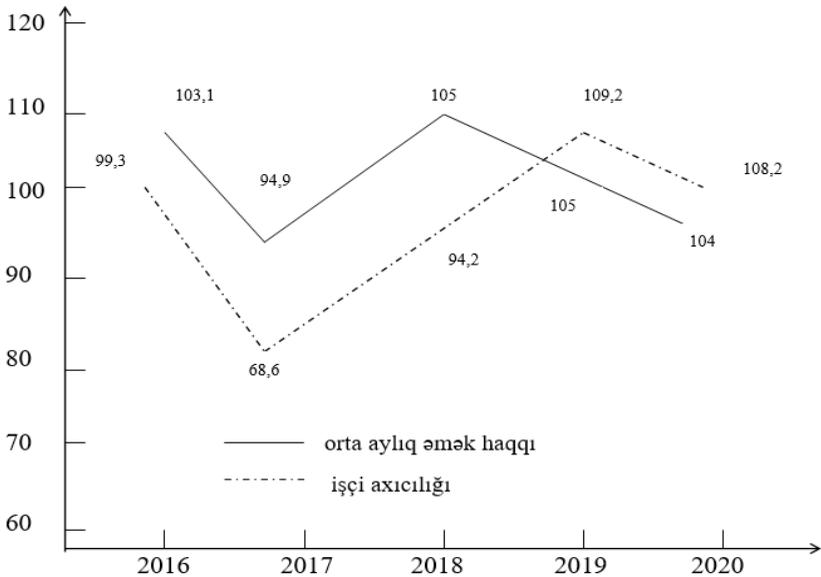


Diagram 2. The dependence among the average monthly salary and the fluidity of employees in the enterprises of producing of the construction materials of Azerbaijan (it has compiled by the author).

The level of fluidity of employees in the large construction companies located on Baku is high and it changes among 39,2 % and 43,7 % in the periods of analysis.

The amount of employees working in the unavailable work condition in the construction sector changes with decreasing line at last 10 years and it has decreased 1606 employees in 2020. In that time, the sum of spendings for the protection of labour in this field

has increased in 2,2 times. (Diagram 3)

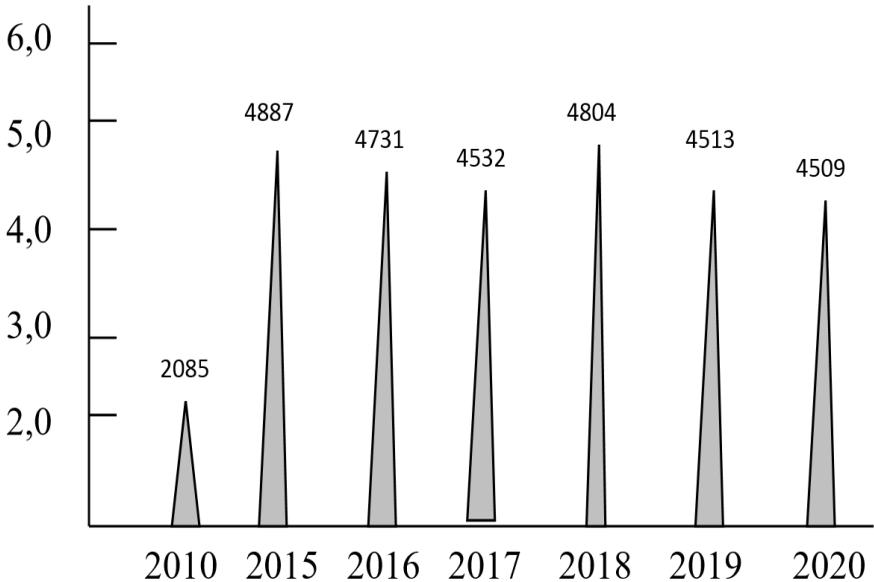


Diagram 3. The spendings for the protection of labour in the construction sector of Azerbaijan, with one thousand (compiled by the author) [9; s.258; 285].

According to official statistic information, 1846 construction enterprises have abolished from different causes in only 2015-2020 years. In result, the loss of working places has happened largely. (Table 2) if we add the dismissed employees with their own request, injured employees and died ones to this list, we can note unequivocally that, the human resources aren't used effectively in the construction sector of republic.

Table 2.

The indicators characterizing the influence to the work places lost conditionally of the enterprises abolished in the construction sector of Azerbaijan

Indicators	Years					
	2015	2016	2017	2018	2019	2020
The number of active enterprises, unit	1445	1425	1524	1635	1826	1901
The number of average list of employees working in the construction, person	95300	96700	101700	106200	119600	134000
The amount of employees working in the construction enterprises on average, person	66	68	67	65	65	70
The amount of enterprises abolished in the construction sector during a year, with unit	456	410	279	270	219	232
The number of conditioned work places lost in the construction sector during a year, unit	28776	27880	18693	17550	14235	16240

Source: The table has compiled by the author on the basis of information of collections of “Statistical indicators of Azerbaijan” and “Small and medium entrepreneur in Azerbaijan” during 2015-2020 years.

**The 4th provision: The issues of motivation of labour behaviours of the employees coincided to the aim and duties of the enterprises in the context of principles and mechanisms of improving the efficiency of the usage from the human resources in the enterprises of the construction industry (p.89-96).**

The principles of management of human resources – are the main ideas, laws and the rules of behaviour of leaders in the accomplishing of functions of management.

In our opinion, the applying of systems coincided to the

construction, principles, and mechanisms prepared by us (on the base of management of managing functions and generalization of main principles of analysis) to the practice of management will be caused to the increasing of efficiency of management of the human resources in the construction sector.

The fundamental approaches to the formation of methodology of management of human resources have been written in the main manuals for the managing of the staffs.

According to the results of our research, the followings have been belonged to the main principles of the increasing of efficiency of management of the human resources in the enterprise:

- Enterprise and staff – the principle of coincidence and non-contradiction for the aim of strategy.
- The principle of attracting of the employees to the enterprise actively (social partnership).
- The principle of perspective of changing caused to the increasing of the staffs.
- The principle of loading of employees in duty during working period.
- The principle of changing of place of applying of the labour.
- The principle of convenient in the work regime and in the work place.
- The principle of agility of the forms of employment.
- The principle of quality balance in the work.
- The principle of enriching of work. Əməyin zənginləşdirilməsi prinsipi.
- The principle of security of work.
- The principle of distinguishing of labour potential.

**The 5th provision: The defining and appreciation of the basic factors influencing to the human resources for using the complex proposals and advices is needed according to the efficient usage from the human resources in the construction sector of Azerbaijan (p.53-59).**

Most of the factors influence to the efficient usage from the human resources in this field that expressed in the specific feature of construction industry. Here includes the economical, social and

technical characteristic factors. That's why, the factors influencing to the usage from the human resources have defined by reporting among the representatives of the construction sector for getting more real results and they have ranged according to the degree of importance in the dissertation work. The results of the expert reports showed that, the main factors influencing to the efficient usage from the human resources in the construction sector are related to the issues of the level of protection, the social-psychological environment in the work place and the stimulization of labour.

**The 6th provision: The necessity of preparation of methodology of the preparation of efficient usage from the human resources is needed by using from the indicators of system for economic, social and labour protection with used from the method of expert appreciation in the construction sector (p.106-111).**

Not being effective of the existed approaches has been defined for preparation of methodology effectively from human resources in the construction companies that, it reflects the economic indicators.

But the integral indicator of effective usage from the human resources must contain the issues of social and labour protection besides with the economic indicators itself. The proposed methodology remove these disadvantages and it has prepared in the context of expert appreciation.

The system of the following indicators has chosen for defining the usage effectively from IR by the Expert group:

- The level of investment to the development of human ( $X_1$ );
- The level of stimulization of labour ( $X_2$ );
- The level of spendings for the labour protection ( $X_3$ );
- The practice of employees ( $X_4$ );
- Social-psychological environment ( $X_5$ );
- Level of social providing ( $X_6$ );
- Level of labour protection ( $X_7$ );
- Level of innovation for the labour protection ( $X_8$ );
- Level of trainings of the labour protection ( $X_9$ );

To calculate with the following formula for efficient usage from the human resources on the appreciation of expert group is proposed:

$$f = \sum_{i=1}^n k_i X_i$$

Here,  $k_i$  – is the level of importance of indicators (special weight);  $X_i$  - is the value of expert of indicators.

Coinciding to the last results of expert values carried on construction companies as Gilan, Accord, Azinvest: 1,78; 2,39 and 1,30 has been, F middle - has been formed as 1,82 level. The results of expert appreciation have been given as the following table (Table 3)

Table 3

The results of expert appreciation

	Gilan Inshaat			Accord			Azinvest		
	$k_i$	$X_i$	$k_i X_i$	$k_i$	$X_i$	$k_i X_i$	$k_i$	$X_i$	$k_i X_i$
$X_1$	0,134	1	0,134	0,133	2	0,266	0,131	2	0,262
$X_2$	0,095	1	0,095	0,127	3	0,381	0,124	2	0,248
$X_3$	0,092	3	0,276	0,143	2	0,286	0,129	2	0,258
$X_4$	0,131	2	0,262	0,136	2	0,272	0,134	2	0,268
$X_5$	0,137	3	0,411	0,091	3	0,273	0,103	2	0,206
$X_6$	0,082	1	0,082	0,098	2	0,196	0,095	1	0,095
$X_7$	0,129	2	0,258	0,081	3	0,243	0,092	2	0,184
$X_8$	0,141	1	0,141	0,094	2	0,188	0,098	1	0,098
$X_9$	0,059	2	0,118	0,097	3	0,291	0,094	3	0,282
<b>F = <math>\sum_{i=1}^n k_i X_i</math></b>	<b>1,78</b>			<b>2,39</b>			<b>1,30</b>		

*The table has been compiled by the author.*

The efficient indicator from IR for the methodology is commented as following:

1.  $1 \leq F \leq 1.6$                       inefficient than – IR
2.  $1.6 \leq F \leq 2.2$                     middle efficient than – IR
3.  $2.3 \leq F \leq 3$                         higher efficient than – IR

The average value of indicator of efficient usage from the human resources for the construction companies is equal to 1,82 as being the result of expert appreciation. It shows the efficient usage of human resources for the shown construction companies in the middle level. The indicator for Gilan construction company is 1,78 – middle efficient, Azinvest construction company is 1,30 – ineffective, and it less than critic level. The indicator of the Accord construction company has been high efficient – 2,39.

Proposed methodology has practised in the construction companies as “Gilan İnshaat”, “Accord” və “Azinvest”. As the results it has defined that, the level of efficient usage from human resources in the construction companies isn’t high.

The results of expert appreciation have described as the following network diagram (Diagram 4).

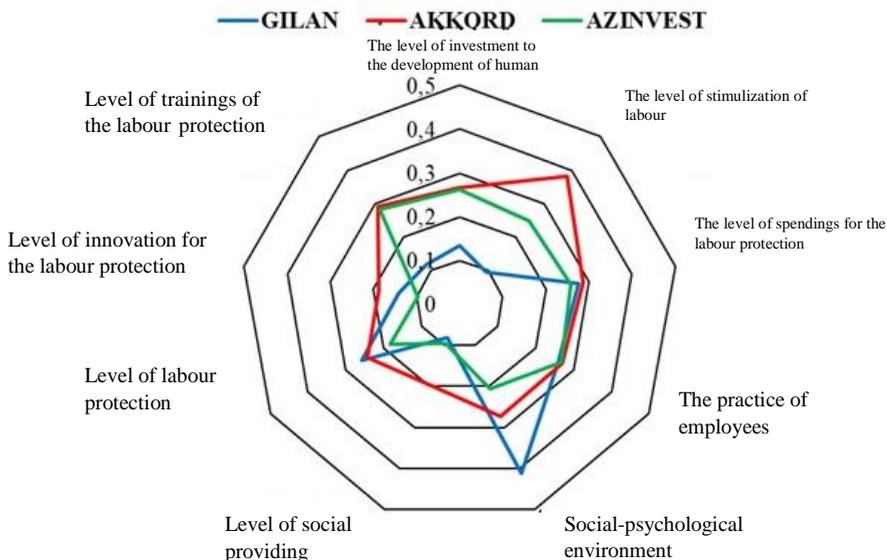


Diagram 4. (it has been compiled by the author in the results of expert appreciation and calculation by the author).

As seen from the diagram, the labour protection, the spendings for the labour protection the factors of social-psychological environment in the work place reflect special importance as the main factors influencing the efficient usage from human resources in the construction companies as Gilan, Accord and Azinvest. To improve these indicators in the construction companies arrange priority. As seen from the diagram, the degree of importance of the indicators of spendings for the labour protection, the level of labour protection, the level of trainings of labour protection and the level of stimulization of labour is high in each three construction companies. To improve those indicators in the construction companies can increase the level of efficient usage from human resources.

For the Gilan construction company, the level of factual value of factors shown above has been defined and the reserve sources for the factors of efficient usage from human resources have been defined by compared with the maximum values given by the experts on the base of scale of 100 scores on the base of reports among the expert groups for the factors. The results of expert appreciation have been described in the following diagram (diagram 5 ).

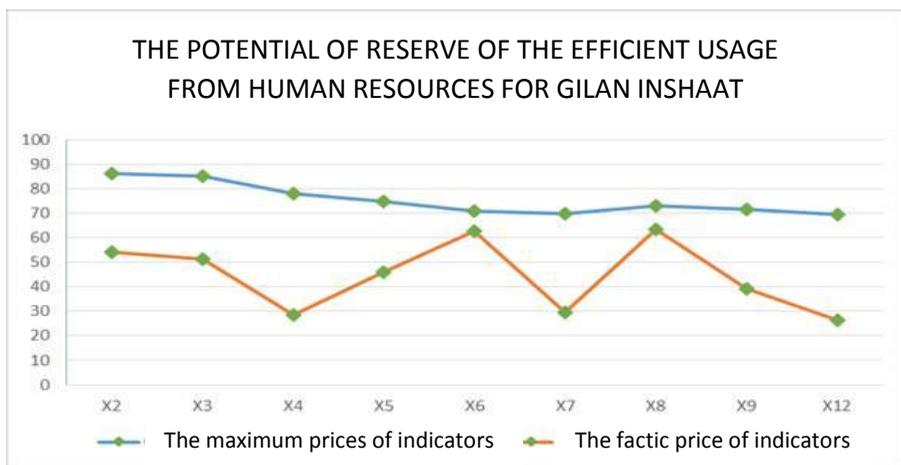


Diagram 5. (it has been compiled by the author in the results of expert appreciation and calculation by the author).

There is enough reserve source for the efficient usage from the human resources in the Gilan construction company. Owing to act these reserve sources, the efficient usage from human resources, labour productivity and income of enterprise can be increased enough.

**The 7th provision: The usage of principal model reflecting the structure and content of conceptual mechanism of state regulation of labour protection in the construction sector is necessary (s.121-128).**

The principal model of state regulation of efficient usage from human resources in the context of providing the labour protection in the construction sector of Azerbaijan has been introduced in the work and the classification of basic priority duties coming from the strategy of future social-economic development of our state has been given.

The improvement for the following directions of state mechanism for efficient usage from human resources in the construction sector is considered expedient:

- Increasing of state policy and municipal powers;
- The main principals of execution of construction activity;
- Labour protection and paying of the salary;
- Accomplishing of ecological protections.

The scope of each directions has been revealed and reflected as the form of scheme in the dissertation work.

Accomplishing of proposals during the result of research can provide the labour protection in the construction sector and can increase the efficient usage from human resources.

**The 8th provision: The preparation of normative document reflecting the classification of coincided to modern standards in the construction sector by basing to international practice for the aim of providing the labour protection for provided the efficient usage from the human resources is necessity (s.129-133).**

The differential classification of those problems has given in 13 directions in the work. We consider that, the compliance true of the execution of organizational-technical, technological and social characteristic directions can give the value for using and appreciating

of aimed plans for efficient usage from the human resources in the construction sector.

In the results of researches, the main factors influencing to the human resources have been classified and defined that, nearly 25 % of the plans of labour protection are related with each other. That's why, the necessity of powering of protection of labour in the enterprises of construction sector has been shown and the classification of plans has been given. It defines in the result of research work that, the normative documents for the labour protection in the construction sector and the level of their accomplishing doesn't coincided to the dynamic changings happened in the field. That's why, the normatives for labour protection coincided to the modern standards with considering the innovative changings in the construction sector have been prepared. The proposals and advices have been given in the work.

**The 9th provision: The preparation of proposals for defining the technical, organizational and other characteristic causes of unhappy events resulted with die and injurings and preventing of them is necessity for the aim of increasing of the efficiency of usage from human resources in the enterprises of construction sector (s.129-137).**

It has defined in the result of research that, approximately half of unhappy events happening in the large construction sector in the city of Baku has happened technically, about 25 % of them happened organizationally (organizing of unsatisfactory work places), 20% of them happened for the sanitary-hygienic and social-psychological causes. The classification of causes of each three groups has been given in the work, the proposal for the neutralizing of them has been formed. So that, the factors influencing negative to the efficient usage from human resources for each direction have been classified and the proposals have been given. The applying of the proposals and advices in the construction companies which given in the dissertation work can provide the efficient usage from the human resources in those companies and can increase the social prosperity of employees working in this field by improving competitiveness of them.

## **Conclusion**

The results getting from the researches in the dissertation show that, human resources aren't used efficiently enough in the enterprises of construction sector of Azerbaijan. There are a lot of factors hindering to increasing of efficient usage from human resources of the construction companies.

The factors hindering to the efficient usage from human resources in the construction industry have been defined in the dissertation and the ways of removing of them have been shown. Mainly, the research has been carried on the context of labour protection and defined that, the efficient usage from human resources depends on the plans of labour protection importantly and spendings for them. This dependence has been defined by the method of expert appreciation and evaluated.

The methodical issues of the efficient usage from labour resources have been applied in the dissertation work, the directions of improvement of state regulation of labour protection have been shown according to increase the efficiency of labour during building in this direction.

By applying the results getting from the dissertation work, proposals and advices in the construction companies of Azerbaijan can increase the efficient usage from human resources in this field, the competitiveness of the construction companies and the level of the social prosperity of employees working in this sector.

The prepared methodologies used in the dissertation can give the important contributions to the efficient usage from human resources in the construction sector. The methodical approaches and practical proposals prepared and used in the dissertation work have been accepted for applying in some enterprises.

The noted provisions have been reflected largely in the dissertation work.

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