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Issue Article

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THE IMAGE OF ALPOMISH IN THE WORKS OF SHAFOAT RAHMATULLO TERMIZI

***Abstract**: "Alpomish" is a national hero of the Uzbek people, no artist has not sung and praised Alpomish. Alpomish has been around for centuries. The creators keep coming back. One of such artists is Shafoat Termizi, a passionate and versatile artist of the Surkhandarya oasis, one of the young successors of the Termezis.*

***Key words**: Alpomish epic, Kungrad tribe, Kodir bakhshi, Shoberdi baxshi, Chorsha bakhshi, folklore.*
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Introduction

Influenced by Uzbek epics, in the early twentieth century, Tajik versions in the form of fairy tales and legends also appeared. Bamsi Bayrak, part of Kitabi Dadam Korkut, an important monument of the medieval Oghuz epic, is close to Alpomish in plot and composition. Alpomish is one of the rare and extraordinary artistic events in the history of world aesthetic thinking. Its uniqueness and uniqueness lies in the fact that this great epic, created in antiquity, has been sung by bakhshis for centuries and has come down to us orally in vivid epic traditions. That is why today it is a great gift of antiquity, the general outlook of the period in which it was created, as well as the objective state of the spirit of the people in the conditions of living traditional creativity and performance. The literary monument "Alpomish" is considered to be a form of folklore based on the ancient epic traditions of the Turkic peoples a thousand years ago. However, in fact, the oldest layers of the epic "Alpomish" reflect the artistic interpretation of the processes that took place in our country in the centuries BC. As the Kungrad tribe moved to different regions and became part of the newly formed peoples, the epic spread to other tribes and peoples, was reworked according to their epic traditions, and eventually became the epic of each nation whose ancestors participated in its creation. Copies of the epic "Alpomish", which have survived in the oral epic tradition, were created in the 9th-10th centuries. However, this conclusion does not deny that the mythological and historical-life roots of the plot and the leading motives that form the basis of the epic date back to ancient times - BC. The plot of the epic contains pre-Islamic views and a mythological layer. The mythological layer in it is cad. are artistic and idealized aspects of life.

Analysis of Subject Matters

The epic "Alpomish" is the golden heritage of our people, which from ancient times has served to educate people in the spirit of pure human qualities. The epic also puts forward a number of advances in the physical development of young people, military patriotism, bravery, heroism, which are valuable and important for all generations.[1.288]

One who has not sung "Alpomish". There is no Uzbek who has not listened to Alpomish. It is a generalization of the classical lessons that make up the epic hero, the cradle god who cleanses the conscience, the navo tahlam that cooks the zuvala, the incomparable veteran who glorifies the motherland and the motherland.

"Alpomish" has a special place in our spiritual values . It embodies the spirit and pure heart of our people. The positive heroes in the epic fascinate us with their pure human qualities.

"Alpomish" is a national hero of the Uzbek people. Alpomish has been around for centuries. The creators keep coming back. One of such artists is Shafoat Termizi, a passionate and versatile artist of the Surkhandarya oasis, one of the young successors of the Termezis.

The image of Alpomish is not unfamiliar to Termez, because it is safe to say that from an early age he was accompanied by a drum. In particular, let 's take a look at the poet's poem "Alpomish" about folklore.

Alpomish, the king of the Alps who entered the thousand,
The world is attracted to you, Alpomish.
Alpomish,
The great symbol of the country is the fish, Alpomish,
Your own everlasting victorious people, Alpomish.

"Alpomish" has its own reasons. First of all, it tells the story of the Uzbek people from the long past life of its bell seed. These are the factors that ensure its closeness and vitality to our people. The image of the heroes in it reflects the courageous image of our people. They are manifested in their vital, natural appearance. For example, Alpomish is brave, tanti, full of strength. However, the story also shows that she was simple, confident, and had the ability to turn away from her covenant because of her father's advice or Kultay's bitter words, and of course, the role of her sister Swallow was very impressive.

What did you do?
Able, Chorsha, Shoberdiday descendants
These brave hands are the fruits of your delight,
The great symbol of the country is the fish, Alpomish,
Your own everlasting victorious people, Alpomish.

Epics like "Alpomish" introduced a number of creators, in particular, the role of the brave and talented people of Surkhandarya, such as Kadir Bakhshi and Shoberdi Bakhshi, is significant. The brother of Shafoat Termezi, the man we are talking about, is the person who, in a sense, was the main reason for his love for the doston and the dombra. The brother of Chorsha Bakhshi Shafoat Termizi, who was one of the famous Bakhshi of Surkhandarya in his time, says about him: was inseparable from the mbira. He practiced witchcraft on my face, fell into the mouths of great witches, and quickly became known. In particular, Sherabad, inspired by the famous son of Mardonakul Avliyokul, became one of the leading Chechen bakhshis of the region.

Research Methodology

Chorsham Bakhshi has many self-woven compositions and poems. He was a master of more than forty folk epics. His epic Toshbosar is a folk novel with a truly deep plot and unique meaning among the modern Uzbek epics I know. Several new epics of Chorsham Bakhshi in the Alpomish family have been written by Surkhandarya scholars and some of them have been published. It will be a book even if Bakhshi collects his own poems and poems published in the local press. Such a talented man passed away ten years ago. I hope that there will be more research on how to pass on this great vocabulary to the people, to future generations.

The reason for my interest in poetry and word magic. I can say that the drum is my first teacher."[2.11-12]

Seven, seventy, a hundred years in prison,
You really suffered in captivity.
Even then you stood firm in the faith,
The great symbol of the country is the dead fish, Alpomish,
Your own everlasting victorious people, Alpomish.

If we pay attention to the epic, Alpomish goes to Kalmykia in order to save Barchin, and there he defeats a few ninety alpines and reaches Barchin's vision, but the evil old Surhail, who cannot bear it, defeats him with cunning. He remained in a foreign prison for many years, and the poet Termizi described such events beautifully in his poems.

The time has come, the decision found in the right place,
Erk's enemies found irreparable damage.
Uzbekistan has found a free homeland,
The great symbol of the country is the fish, Alpomish,
Your own everlasting victorious people, Alpomish.[3.16]

emphasizing that behind all the hardships Alpomish has experienced , there is such a great symbol of the country.

O Alpomish, you are the verses of courage,
Oh, Oybarchin, you are loyal bayots.
Your life is an eternal example,
The great symbol of the country is the fish, Alpomish,
Your own everlasting victorious people, Alpomish.

He praises the image of Alpomish as a symbol of courage and the image of Barchin as a symbol of devotion, and describes his life as an eternal epic. In general , the image of Barchin in the epic is ideologically and aesthetically complete . She emphasizes that in addition to being beautiful, she has become a symbol of highly educated, spiritually rich and intelligent women.

I looked after the lamb as Kultay on your hills,

At your wedding, I was a monument.
I flowed with Boychibor in the latitudes,
The great symbol of the country is the fish, Alpomish,
Your own everlasting victorious people, Alpomish.

While singing the epic, the poet says that Kultay-u and Boychibor's place in Alpomish's life is incomparable, and praises the courage of Boychibor, who accompanied him in the steppes and deserts.[4.17]

Analysis and results

"In the image of the invincible hero of our people - Alpomish, we see the spiritual image of today's Alpomish - our great sons who are able to protect our country from evil eyes, calamities, and, if necessary, are ready to sacrifice their lives in this way. We believe that each generation will cherish this heroic epic and pass it on to future generations. No force can defeat the nation that sang this heroic epic and put it in their hearts and minds, "said the First President of the Republic of Uzbekistan I.A Karimov. [5. 87]

In recent years, based on the proposals of the President, a number of effective measures have been taken to further study and promote the ethnography of the oasis, folklore, handicrafts, applied arts. Such important educational work, scientific researches and studies are still being carried out consistently. The writing of a more advanced version of the epic "Alpomish" is one of the exemplary works in our region on the deeper study of folklore, in particular, epic poetry. It is now a tradition in our oasis to add the epic "Alpomish" to the bridal bouquet.

In the words of President Islam Karimov, "Alpomish" is a heroic song. This song will be epic in the languages of our future generations.

In short, Shafoat Termizi has created a fruitful and prosperous work in folklore, which, of course, led to the peak of creativity in the family environment, that is, growing up surrounded by the traditions and patterns of baxshi 'lmaydi.

Shafoat Termizi strives for originality and originality in any subject, especially in the field of folklore lived in and created.

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Issue Article

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THE MORAL NEEDS OF THE INDIVIDUAL AND THEIR UNIQUENESS IN SHAPING THE SPIRITUALITY OF THE YOUTH

***Abstract**: The state describes the moral needs of man, the characteristics and system of the ego, and examines their importance in shaping the spirituality of the youth.*

***Key words**: morality, personality, youth, moral need, moral culture, moral norm, community, vital activity.*

***Language**: English*

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Introduction

Moral needs reflect the essence of human spirituality, norms of nature, society, self-esteem and values, and are therefore inseparable from all components of the system of individual needs. In this context, a holistic study of the content and composition of a person's moral needs is more complex.

The characteristics that a person's blood has implanted in his body, important aspects, are expressed in his moral behavior. Consequently, his character and will can be considered as moral needs. This can be considered as a moral need. Are the moral needs that arise spontaneously in a person just his state of mind? Or are they a product of social life? The question arises.

Of course, the need is connected with natural, biological, material, social and spiritual factors and bases. Consequently, moral needs also reflect aspects of all kinds of needs. All these factors directly and indirectly influence the emergence and development of moral needs. For example, even if a person's biological needs are objective, the extent, nature and form of their satisfaction require adherence to certain ethical norms and behavioral requirements. After all, true happiness can be achieved only when all material and spiritual blessings come together. Or let us consider the question of whether man is a biosocial being. His social needs in society are so diverse and complex that their satisfaction is based on strict adherence to the stable moral needs of society.

In this sense, the concept of needs can be called the starting point of human life activity. Since the needs are embedded in the whole psychic system, the psychic levels, the essence of man reflects his characteristics in a general form. The needs reflect the external environment of the human body and the specific relationship of the individual to society, from which the reasons for the activities are derived. Thus, all manifestations of the needs system embody the reasons and needs that motivate a person to perform actions that require the performance of certain behaviors and thus moral behavior.

In this respect, we can clearly see the humanistic, human nature of moral needs in the structure and system of satisfaction of the various manifestations of needs. Because of the diversity of the types of needs, researchers group them together. Here we focus on the specific role of ethical elements in their composition.

The simplest needs are commonly referred to as vital needs, which include the human need for food, clothing, housing, and many other natural and biological kinds. When it comes to satisfying the needs for food, clothing and other essentials, certain ethical rules and requirements must be followed. According to Muhammad Sadiq Qashqari's Odob-as-Salihin, there are 50 ethical principles for a banquet when observing a guest to satisfy his cultural needs, including 10 rules of etiquette when it comes to hospitality and hosting, and 30 rules of etiquette when entertaining and hosting guests. applies.

The second group of needs is conditionally related to one's security and focuses on stabilizing one's life, living in peace. The third group deals with a particular relationship of an individual. The fourth group consists of the need for social recognition, respect for others, "prestige", the need to rise from the ranks of servants. The fifth group consists of the need for self-esteem, self-assessment. The sixth group is higher, namely the spiritual needs. The moral needs, on the other hand, are resolved in all this, especially as an expression of the spiritual life, and are satisfied in the human mind. However, this should not lead to the idea that the moral needs are related only to the mental activity of the individual and therefore manifest at all levels and in all spheres of human activity.

There are cases in the literature where the various needs of a person are interpreted in the context of the psychological causes of his behavior. Of course, psychological states are the product of a spiritual, objective being, which implies the creation and formation of the needs of social life. According to B. Ziyomuhammedov "the soul serves only the purpose of pure intentions, good deeds and perfection. Moreover, people who are inclined to material possessions cannot hear the lamentations of the soul because the world of wealth and jewelry, including money, has a negative power. "Based on the interpretation of this thought, the essence of ethical needs can be further clarified.

Not only the material conditions of an individual's life, but also the social demands on his rights have an objective meaning, since these demands are decided on the basis of moral norms, values, and the culture of individuals in general. "Without spiritual and moral maturity, society cannot develop the economic, social, political and legal norms inherent in human beings and achieve the goals set by society".[1] At the same time, the needs in the spiritual world of an individual are reasonably stable and are formed during his life activity, so some of them, i.e. the natural-biological types, arise naturally, but their spiritual content deepens as the person grows older. becomes an important factor. If the moral needs consist only of the first category of material needs or physiological inclinations and aspirations, they may lose their high moral, human qualities and characteristics. Moreover, the ethical needs are naturally not directed to material benefits, because otherwise these interests would have to come to the fore sooner or later.

Such an interpretation of the matter leads to a strong simplification of the psychological and spiritual foundations of moral needs.

First, it ignores the special aspects and stability of moral needs; second, it gives great freedom to the moral will within the framework of human needs. Therefore, the formation of moral needs is neither a simple process nor an abstract understanding of the unity of interests of the individual and society. Moral needs, on the one hand, are based on experience, which implies a harmonious perception of the situation with mental activity; on the other hand, they also have non-experiential characteristics, and the person also expresses inner, mental-emotional feelings and experiences. The mutual unity of these two parties makes it possible to fully express the essence of ethical needs.

A reasonable balance of an individual's material interests and needs is based on enlightened factors, but profit-oriented thinking cannot shape moral needs without affecting other conditions and individuals. If the attitude of the individual in society is realized only from the point of view of profit, then this thing requires only the priority of personal interests.

Therefore, the relationship between utilitarian thinking and moral needs is complex and contradictory. Of course, insight into the unity of the individual and society does not directly create moral needs. However, it can create psychological incentives that support moral behavior. Therefore, in the process of education, achieving unity of interests of the individual, society and the state plays an important role in the formation of moral motives and needs.

Thus, the formation of moral needs in man does not take place on the basis of utilitarianism, i.e. the ideology of blind faith that the main goal of morality is utility, but in the context of the profound acquisition of moral values. "The pursuit of beauty and moral perfection is a human trait. When a person achieves a commonality of intellect and moral virtue in his activity, that is, in his way of life, he becomes a wise and noble person. Depending on his efforts, he can achieve his dreams and goals. "It is based on the individual's moral needs in the form of moral values such as goodness, justice, duty, conscience, meaning and purpose of life. Man joins together in a community to live, reproduce and protect himself, to work on this basis, to strive to prolong his life and to function. In this process, his moral needs acquire a

[1] Muxammad Sodiq Qashgariy. The manners of good people.(Odob-as-solihin)- Tashkent. Yangi asr avlodi, 2002 406-p.

social content and manifest themselves as he recognizes the social order of the community as his duty and makes it the content of his own human responsibility to follow it.

The main goal of cultural and moral renewal of society is the peace of the country, the development of the Motherland, the well-being of the people, the education of the perfect man, social cooperation and interethnic harmony, religious tolerance. Orienting society to national and universal values is one of the important tasks of ethics. Because moral values play an important role in a person's perfection, they show a person the way to go towards goodness and avoid evil. In turn, such moral values allow people to better understand the meaning of life, to make positive use of the rules of social development, to carry out their daily activities in accordance with the requirements of these spiritual and moral criteria.

The harmony of the moral qualities of young people, the ability to self-control, consists of a sense of responsibility and duty to society, the Motherland. All of these qualities were manifested in a culture rational needs and ethics in labor, in communication with people. In the formation of the moral upbringing of young people, the following tasks are also important: to promote from the first days of child's life the normal growth and development and the inculcation of a variety positive habits that help to nurture his behavior; educating young people at home, on the street, in public places in accordance with generally accepted norms of society; to teach to treat others with respect, to take into account their profession, work, interests; politeness, enthusiasm, composure, politeness, humility, sensitivity, team skills reflected in the ability to consider the interests of the public, and fostering a culture of attitudes with adults and peers, among others. It can be said that all these are ideological factors in raising the moral education of the youth.

Higher education institutions are faced with great and responsible tasks in further strengthening our society on the basis of national values, including the socio-political activity of young people. At this stage, when the important problems of developing democracy, strengthening a healthy lifestyle, and developing a new person are being addressed in our country, the role of youth is growing. We must not forget that the foundation our future is laid in educational institutions, in other words, the future of our people depends on how our young people are educated and brought up today. Education is inseparable from upbringing, and upbringing is inseparable from education-this is the Eastern outlook, the Eastern philosophy of life[2]. Commitment to national values is the basis of the national idea. One of the important tasks today is to from a sense of devotion to independence, to strengthen the sense of citizenship, to respect for national values and enrichment of young people: education, culture, enlightenment. The main goal of our society is to bring up children who are self-sacrificing to the Motherland, people and nation, who consciously and responsibly solve every problem, who are spiritually mature, well-educated and physically and spiritually. To grow up to be enlightened people. So, such talented students, spiritual youth can be the backbone of our country and create a bright future. It should be noted that the development of the country, creating a bright future for young people, deeply ingrained in the hearts of national values, traditions of rich history and spiritual heritage of our people, educating them in the spirit of nationalism , selflessness and universal values. The family, as well as the duty of every citizen. There are enough opportunities for this, but each of us must feel this responsibility deeply and mobilize our efforts.

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Issue Article

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THE COMMUNICATION BETWEEN REGIONS ALONG THE GREAT WALL OF INNER MONGOLIA AND SHANXI IN MING AND QING DYNASTIES OF CHINA

***Abstract**: The Great Wall is a magnificent project in ancient China, also the achievement of sweat and wisdom of Chinese ancestors. As a solid fortification, successive dynasties had built the Great Wall to protect their territories. The Ming and Qing Great Wall, which is the largest and best preserved, is the representative of the Great Wall of China, mainly distributed in today's shanxi(is called Jin for short), Inner Mongolia(is called Meng for short) and other northern regions. Based on the Meng-Jin region, this article focuses on the relevant concepts and geographical location of the Great Wall during the Ming and Qing dynasties, and summarizes the effects of the Great Wall from the aspects of military, economic and cultural communication, so as to fill some academic gaps.*

***Key words**: Ming Qing Great Wall; Shanxi and Inner Mongolia; Military, Economic and Cultural Communication.*

***Language**: English*

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Introduction

The Great Wall is not only a representative building of Chinese nation, but also a symbol of China long history and profound culture. As a stronghold area combining farming and nomadic civilization, Ming Qing Great Wall in Meng-Jin region effectively promoted the interaction of a series of living styles, customs, culture and art, also accelerated the development of military facilities, economic trade and other fields. However, current historical circle regards the research of the Great Wall as a whole, and there are relatively few studies on the Great Wall of Meng-Jin region in Ming Qing dynasties. Taking the regional history as the starting point, this article systematically introduces the evolution of the Great Wall of Meng-Jin region in Ming Qing dynasties, and illustrates its unique significance.

The concept of the Great Wall in the Ming Qing Dynasties

The Great Wall is a grand defense project in ancient China, it shows ancestors' extraordinary creativity, superb scientific level and lasting perseverance. It is a symbol of great unity of Chinese nation."The Great Wall is a continuous high wall made of soil, stones and bricks. It is a military project used in ancient borders to resist enemies." The emergence of the Great Wall was closely related to the change of the society at that time. Its connotation and extension had also been enriched in historical evolution.

During the Eastern Zhou Dynasty, wars among principalities became the theme of the times, and many countries built the Great Wall to defense. In that period, relatively backward northern nomads often went south to plunder, which seriously damaged the economy of Central Plains. Consequently, adjacent countries such as Yanand Zhao built the Great Wall to defend.

In 221 B.C., Qin Shihuang established the first unified autocratic centralized feudal dynasty in Chinese history. In order to remove the threat of northern borders, hesent General Meng Tian to lead the army attacked Xiongnu, occupied Hetao Area and began to build the Great Wall massively. On one hand, the Great Wall was built in newterritories. On the other hand ,they"repaired the original north Great Wall of Yan, Zhaoand reinforced part of the walls built during the reign of King Zhao of Qin."[2]In this foundation, the Great Wall, as a fortress, was built from Lintao in the west to Liaodongin the east.

When emperor Han Wudi was in power, the Great Wall continued to be fortified. "The northern border against Xiongnu was advanced to the southern foot of Yin Mountain in present Inner Mongolia." [3] Later, the rulers of the Bei Qi, Bei Zhou, Sui, Liao and other dynasties all successively built the Great Wall in different degrees.

The Ming Dynasty learned the painful lesson from Song Dynasty lost half of territories and built the Great Wall on the northern border to defend against attacks. In more than two hundred years, the Great Wall had been rebuilt several times, forming the new Great Wall — west from Jiayuguan in Gansu, passed through Ningxia, Inner Mongolia, Shanxi and other places, to the Yalu River in Liaoning, "the total length was 8851.8 kilometers." [4]

During the reign of emperor Shunzhi and Kangxi in Qing Dynasty, a section of the Great Wall, called Wicker Border, was built in Liaoning and Jilin provinces. However, in Qing Dynasty, most of them continued to use Ming Great Wall, so this article studies the Great Wall of Ming, Qing dynasties as a whole.

The middle and western sections of Ming Great Wall mainly passed through Shanxi and Inner Mongolia. Shanxi province, located in north China and adjacent to Inner Mongolia, is a blend area of farming and nomadic culture, has a strategic position.So many dynasties built the Great Wall here, especially Ming Dynasty.

The Ming Great Wall in Shanxi was more than 800 kilometers long, including three parts: "the outer Great Wall's starting point was Huai'an, Hebei, endedin Pianguan, Shanxi, about 380 kilometers long; the inner Great Wall started from Pingshan, Hebei, turned to Pianguan through Hunyuan and Shenchi; the third was the section from Pianguan to Hequ in the west, about 70 kilometers along the Yellow River." [5] The construction of these walls created a balanced environment for the development of feudal security and economy, and also made people's lives more stable.

Inner Mongolia, with its vast territory spanning northeast and northwest China, has unique geographical advantages. It has always been an important area for nomads to compete with farming dynasties in the Central Plains. Hence it has become a key place for the distribution of the Great Wall. The Ming Great Wall, with a total length of more than 700 kilometers, mainly distributed in five places, namely Alxa, Wuhai, Ordos, Hohhot and Ulanqab.

The Effects of the Great Wall in Ming Qing Dynasties

The Great Wall of Ming Qing Dynasties is one of the great military defense projects in the world. It is not a simple isolated wall, but organically connects castles with military towns to form a complete system.The Great Wall is the guarantee of peace in the agricultural society during Ming Qing dynasties, so that Chinese culture can be inherited today. Specifically speaking, its effects are mainly reflected in the following aspects:

1. The aspect of military

During the Ming and Qing dynasties, protecting national security and the stability of people's lives were still the main tasks of the Great Wall. In particular, the Ming Dynasty, established on the Yuan Dynasty, which overthrew the feudal lords of Mongolia, "paid special attention to the construction of northern Great Wall. In more than 270 years, Ming Dynasty never stopped building the Great Wall and managing itsdefense system." [6]

The Great Wall was called BianQiang in Ming Dynasty, which was the boundary

wall. The Ming Dynasty set up nine defense areas along the Great Wall, called Nine Sides or Nine Towns: Liaodong Town, Ji Town, Xuanfu Town, Datong Town, Shanxi Town, Yansui Town, Ningxia Town, Guyuan Town and Gansu Town. The chief officers were responsible for commanding troops and other affairs. Nine Sides had made indelible contributions to defending the capital and territories since Ming Dynasty.

The Ming Dynasty ingeniously combined army farming with lifelong enlistment system, so that daily production and combat formed a virtuous cycle. "As a support point, Guancheng was not only primary command center, but also a place for troops to store grain and weapons; it was not only a camp for military training, but also a solid fortress."[7]It formed an integrated defense system on the basis of Guancheng, which played an important part in promoting social stability.

In addition to defense, the Great Wall in Ming Qing dynasties also embodied brilliant achievements of ancient Chinese architectural technology. Ming Great Wall was not only grand in scale, but also had different styles. These buildings integrated natural beauty with artificial beauty well, which enabled people to appreciate the scenic spots as well as showed ancestors' extraordinary charm vividly.

2. The aspect of economy

Throughout the history of northern frontiers' development in ancient China, most of them were closely related to frontier defense construction with the Great Wall as the core. During the Ming Dynasty, the emperors' measures of constructing the Great

Wall, which effectively promoted the economic exploitation of relevant areas, as well as the irrigation of farmland and road networks. Especially in the early Ming Dynasty, roads directly to the capital were built, which not only facilitated the transportation of grain and soldiers, but also greatly stimulated the cultural and economic communication in the northern border regions.

One of the economic measures that matched the military system of Ming Dynastywas Tea-Horse Trade， which mainly involved trading tea for horses or horses for tea inareas along the Great Wall, including today's Shanxi province and Inner Mongolia Autonomous Region. Generally, trade was conducted at the designated place on the borders. In order to ensure the smooth progress of Tea-Horse Trade, Ming governmentsuccessively established the Tea Division, Tea and Horse Department and other organizations to manage trade.

A number of measures such as Tea-Horse Trade brought lots of benefits to the defense and cultivation of the Great Wall at Meng-Jin area in the Ming Dynasty, the horses needed in this area were also met in time.These horses, besides military needs, played a momentous role in the progress of the agricultural economy." In the late Ming Dynasty, along the Great Wall, the rise of folk exchanges, equal and mutually beneficial national trade brought about the rapid development of economy in the Great Wall areas, which provided preconditions for the integration of agriculture and animal husbandry economy in the Ming Dynasty, such as Hexi region." ［8］

During the Qing Dynasty, because of the rapid population growth and frequent natural disasters, people from Shanxi and other provinces flooded into Tumet, Ordos, Chahar and other places in Inner Mongolia through passages along the Great Wall, which brought unprecedented changes in this region. This historical event was called Going West, it had gone beyond simple population migration. More importantly, the presence of a large number of businessmen in Mongolia had deepened the integration and communication among ethnic groups, also promoted national unity, and opened a window to the north, which had a far-reaching impact.

3. The aspect of culture

During Ming Qing dynasties, owing to construction of the Great Wall, cultural communication between the Han and Mongolian people became more and more frequent, which were reflected in following aspects:

In terms of diet, the northern Shanxi was rich in naked oats, millet, sorghum and other coarse grains, as well as potatoes, cabbage and other vegetables. Local people were fond of eating wheaten food. The Mongolian people living on the prairie love all kinds of meat and dairy products. After Shanxi people moved into Inner Mongolia, the eating habits of both sides were influenced and attracted by each other. Sliced noodles,stewed pickled vegetables, hand-held meat is still the daily diet of these two regions nowadays.

Apart from lifestyle, language had also changed. The western dialect areas of Inner Mongolia were deeply influenced by Shanxi and Shaanxi dialects. Similarly, words with overlapping morphemes were often used in northern Shanxi dialects. The word-formation of these dialects was very similar to the central and western Inner Mongolia dialects, which showed that they had a great relationship of origin. "These dialects and western Inner Mongolia dialects were similar in morphology, whichindicated that they were closely related." ［9］

In terms of literature and art, there were plenty of historical monographs introducing the strategic position of the Great Wall due to the continuous conflicts in the northern border areas during the Ming Qing dynasties. Fortunately, these books had been handed down today, such as *Jingshi Qiyao* by Zhang Sui of Ming Dynasty, and *The Strategy of Defeating Enemies in Nine Borders* compiled by Li Zaiting. Meanwhile, many poems and prose describing the Great Wall were also widely spread, such as Qi Jiguang's poem *Shanhaiguan Tower* and so on.

In the Qing Dynasty, the emigration wave of Going West in Shanxi, Shaanxi and Inner Mongolia greatly promoted the cultural communication."The refugees who escaped from the famine through the western entrance spread to Inner Mongolia, and gradually formed a new kind of art—ErRenTai, by absorbing many elements of Mongolian songs." ［10 ］ErRenTai, was a local opera integrating folk songs, instrumental music and dance, vividly reflected the daily life and emotional appeal of labouring people, was the representative of artistic integration of Mongolian and Han cultures. Today, it is still popular in these areas.

Conclusion.

The Great Wall of the Ming and Qing dynasties is a miracle created by labouring people in ancient China, is a monument recording the long history of Chinese nation, is a concentrated embodiment of excellent military thoughts of ancestors, it is also the link of national communication. It has accelerated the communication and development of military, economic and cultural aspects among different ethnic groups and make great contributions to the formation and evolution of Chinese nation. What's more, as a precious heritage in human history, "the Great Wall plays an irreplaceable role for the world to understand China and for China moves towards the world." [11] The Great Wall belongs to both China and the world. Today, we should protect the Great Wall, protect our history.

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Issue Article

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HISTORY OF CREDIT AND LOAN-DEPOSIT COMPANIES IN TURKISTAN IN THE LATE 19TH AND EARLY 20TH CENTURIES

Abstract: *In the course of business in the Russian Empire, companies were operating in various fields in essence. Most of them are large companies engaged in trade. In this article reflects the process of financing farmers for replenishing raw materials as a result of increased demand for cotton in the late 19th century. This article describes the main purpose of the establishment of small credit, loan and savings companies established in Turkistan during the rule of empire Russia. It also explains the different rules of dealing with each other, the names and number of loan and credit companies established in each region of Turkestan, and why loan and credit companies have been established in certain areas.*

Key words: *Credit, loan-deposit, savings, artel, company, district, desyatina, profit.*
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ИСТОРИЯ ССУДО-СБЕРЕГАТЕЛЬНЫХ И КРЕДИТНЫХ ТОВАРИЩЕСТВ В ТУРКЕСТАНСКОМ КРАЕ КОНЦЕ XIX В НАЧАЛЕ XX ВЕКА

Аннотация: *В Российской империи по своему характеру деятельности в различных сферах вели свою деятельность товарищества. Основная часть которых были крупными торгово-промышленными товариществами которые были в сфере торговли. В статье пишется увелечение потребности в хлопковом сырье привело к расширению кредитования дехкан. В данной статье раскрывается суть образования и основная цель деяттельности кредитных, ссудо-сберегательных в Туркестане в период царской России. Кроме этого в статье пишеться о названиях каждого кредитного и ссудо-сберегательного товарищества по регионам, численность и причины по которым в одних открывались ссудо-сберегательные в других кредитные товарищества.*

Ключевые слова: *Кредит, ссудо-сберегательный, потребительский, артель, товарищество, уезд, десятина, прибыль.*

Введение

После завоевания Средней Азии Российской империей текстильная промышленность была обеспечена дешевым хлопком. В результате в этой сфере стали действовать многие акционерные общества и торгово-промышленные товарищества на паях. Однако растущий спрос на хлопок привел к расширению хлопковых полей. В результате уже в 1880-х годах российское правительство стало поддерживать создание в Туркестанском крае мелких сберегательно-кредитных товариществ с целью развития хлопководства.

Основная часть

Первая в Туркестане ссудно-сберегательное товарищество была учреждена 2 ноября 1884 года в Туркестане [1]. Но информации о дальнейшей деятельности товарищества в архивных документах отсутствует. В 1885 году в Шымкентском уезде была учреждена ссудно-сберегательная товарищество. Однако в письме Министерства финансов в Сырдарьинское областное управление пишеться, что данное товарищество не отчитывалась с 1888 по 1889 год [2]. По этим данным можно утверждать что, данное товарищество в 1888 году перестало существовать.

К 1907 г. в связи с падением урожая хлопка Российское правительство было вынуждено заняться этим вопросом в широких масштабах. В связи с этим были предприняты усилия по созданию доступных кредитов для дехкан. Безусловно, эта мера направлена на повышение урожайности хлопка. Дехкане имели ограниченный доступ к кредитам в коммерческих банках. Это связано с тем, что банки кредитовали в основном крупные товарищества на паях и акционерные общества. Кредиты банков, занимающихся земельными вопросами, также не распространялись на простых дехкан. В результате дехкане были вынуждены брать небольшие ссуды у местных ростовщиков. Многие дехкане, не выплатившие вовремя долги за счет высоких процентных ставок, разорялись. В письме комитета по регистрации кредитов Госбанка политическому агенту в Бухаре пишется: «Коммерческие банки не открывают свои двери для мелких землевладельцев для получения кредитов. Местные богачи вроде Файдухорова дают взаймы под высокие проценты, с 3 рублей беря по 30 копеек в неделю» [3].

Первое кредитное товарищество в Туркестанском крае была создана 6 мая 1907 года в г. Коканде[4]. Проект устава данного кредитного общества составлен в соответствии с общими правилами деятельности ссудно-сберегательных обществ. В уставах кредитных товариществ предусматривалось, что они должны выступать в качестве посредников в облегчении положения путем предоставления кредитов членам общества для улучшения их хозяйственной деятельности и приобретения дополнительного оборудования. Цель ссудо-сберегательных товариществ дополнительно вклачала также , чтобы позволить получать дополнительный процентный доход. Основной капитал ссудно-сберегательных товариществ формировалась за счет взносов участников в размере не менее 1 рубля и обязательства по оплате оставшейся суммы в течение года (сумма вклада в пай должна быть не менее 10 рублей, не более более 100 руб.). В кредитных товариществах основной капитал накапливался участниками товарищества. В ссудо-сберегательных товариществах дополнительно было разрешено получать дополнительный доход за счет выпуска ценных бумаг.

Обычно ссудо-сберегательные товарищества учреждались в местностях более обеспеченным населением, то кредитные товарищества образовывались в местностях менее обеспеченным населением [5].

Основной капитал кредитных товариществ должен был быть не менее 1000 руб. Кредиты выдавались только членам общества в размере 300 рублей на ведение хозяйства и приобретение техники. Все выданные кредиты не должны были составлять более половины основного капитала товарищества. Некоторые участники занимали большие суммы, из-за чего другие участники не могли брать кредиты в течение длительного периода времени. Например, в 1914 г. Андижанское областное отделение Госбанка выдало ⅓ членам кредитных товариществ, а остальным членам других кредитных товариществ не были выделены кредиты. [6].

В течение 1909-1910 гг. в Туркестане увеличилось количество кредитных и ссудо-сберегательных товариществ. Только за эти годы в Прикаспийском регионе было создано 17 ссудо-сберегательных и кредитных товариществ, в том числе 7 в Марвском районе, 7 в Ашхабадском районе, 2 в Таджанском районе и 1 рыбокредитное товарищество в Красноводском районе. К 1911 году общее количество членов товариществ в области достигло 2530 человек, и ими были получены кредиты на сумму 133 048 сумов 50 тийин [7]. В 1913 г. насчитывалось 6 кредитных и 42 ссудо-сберегательных и кредитных товариществ, численность её членов составляло 9294, а в 1914 г. — 6 кредитных и 52 ссудно-сберегательных товариществ, в том числе 23 ссудо-сберегательных товариществ в Ашхабаде, 21 ссудо-сберегательных товариществ в Мерве и 8 кредитных товариществ в г.Таджан, в Красноводске была 1 кредитное товарищество [8]. Как видно, ссудно-сберегательных товариществ в области было больше, чем кредитных. Это позволило участникам товариществ получать дополнительные проценты по ценным бумагам.

Российское правительство пыталось увеличить количество кредитных товариществ в областях, специализирующихся на хлопке.

В 1911 году количество кредитных и ссудо-сберегательных-ссудных товариществ в Ферганской области было 4, в 1913 году - 63[9], в 1914 г. их было 68, из них 64 кредитных и 4 ссудо-сберегательных товариществ [10]. В 1914 году их насчитывалось уже 139 в Сырдарьинской области и 112 [11]. В 1912 году в Семиреченской области, Верненском районе было создано всего 5 кредитных и 1 ссудо-сберегательное товарищество. Общая численность членов товариществ достигала 1746 [12].

В хлопковом секторе увеличилось количество мелких кредитных товариществ. 8

октября 1912 года Глушановский, исполняющий обязанности государственного агронома Самаркандской области, предложил Департаменту земли и государственных имуществ и военному губернатору области учредить «постоянный совет мелких кредитных товариществ по земледельческим делам». На этой основе 24 октября приказом военного губернатора Самаркандской области был образован совет [13]. В задачи совета входило обсуждение годовых планов товариществ, помощь им в сборе средств, проведение контрольных работ, рассмотрение их отчетов. Если раньше дехкане закупали семена хлопка и других культур у частных лиц, то теперь эта задача была возложена на совет.

В 1914 году Госбанк выделил 61 кредитным и 41 ссуда-сберегательным товариществам Андижанского и Скобелевского уездов 1 367 733 рублей, из них на кредитные товарищества было выделено 913 987 рублей, а на ссудо-сберегательные товарищества 453 746 рублей. [14]. Из них каждому члену ссудо-сберегательных товариществ было выплачено по 77 рублей, а членам кредитных товариществ - по 67 рублей. Рост количества товариществ привел к сокращению местных ростовщиков. Например, в Кокандском уезде при учреждении товарищества «Новкат» в кишлаке было 20 ростовщиков с суммой от 1000 до 3000 рублей, но через год их число сократилось до 5, а в 1915 году ростовщиков не осталось. [15].

Заключение

Росийское правительство сосредоточилось на развитии отраслей, которые могли бы принести большую выгоду российской экономике. Тем более в тот период текстильная промышленность была на пике развития. Для увеличения сбора хлопкосырья применялись разные подходы решения этого вопроса по увеличению урожайности. Поэтому одним из уделений внимания было уделено увеличению числа кредитных и ссудо-сберегательных товариществ.

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Issue Article

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COMPOSITION AND STRUCTURE OF HOUSEHOLD INCOMES IN THE REPUBLIC OF UZBEKISTAN

Abstract: *This article presents various approaches to the definition of the concept and essence of households, considers examples of financial relations of households, describes the economic content and types of household income, analyzes the structure of household income in the Republic of Uzbekistan.*

Key words: *population, households, finance, financial relations, household incomes.*
Language: *English*
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Introduction

The household in the modern economy is the main force in the social production and distribution of goods and services. The essence of households, nature of their social and economic relations, place, role, structure, functions, size, rights and responsibilities, socio-economic status of the household have changed.

There are many approaches to the definition of the term “a household”. According to the OECD Glossary of the Statistical Terms, the concept of household is based on the arrangements made by persons, individually or in groups, for providing themselves with food or other essentials for living. A household may be either (a) a one-person household, that is to say, a person who makes provision for his or her own food or other essentials for living without combining with any other person to form part of a multi-person household or (b) a multi-person household, that is to say, a group of two or more persons living together who make common provision for food or other essentials for living. The persons in the group may pool their incomes and may, to a greater or lesser extent, have a common budget; they may be related or unrelated persons or constitute a combination of persons both related and unrelated. A household may be located in a housing unit or in a set of collective living quarters such as a boarding house, a hotel or a camp, or may comprise the administrative personnel in an institution. The household may also be homeless [1].

Eurostat Statistics Explained gives the description of a household in the context of surveys on social conditions or income such as EU statistics on income and living conditions (EU-SILC) or the Household budget survey (HBS), where a household is defined as a housekeeping unit or, operationally, as a social unit [2]:

- having common arrangements;
- sharing household expenses or daily needs;
- in a shared common residence.

A household includes either one person living alone or a group of people, not necessarily related, living at the same address with common housekeeping, i.e. sharing at least one meal per day or sharing a living or sitting room.

Corporate Finance Institute published on its official Internet-site that a household refers to a social unit of people who live together under one roof and share resources, even if they are not related to each other. In the US, the Census Bureau categorizes households as family or non-family. A family household comprises members who are related by blood, whereas a non-family household comprises people sharing a home but who are not related by blood. In the United Kingdom, a household is made up of people who share accommodations and at least one meal a day. If there are several people sharing a dwelling but who do not share meals or accommodations, then such an arrangement is considered to be multiple households [3].

Household finance is a set of money relations regarding the creation and use of money funds, which are entered into by the household and its individual participants in the course of their socio-economic activities. The main purpose of household finance is the formation of financial resources being enough for the life support of the population.

Households in the process of their functioning form various financial relations with state authorities and administrations, commercial enterprises, non-profit organizations, other individuals, as a result of which the family budget, reserve fund and other money funds are formed [4-6]:

— relations between households and other households and commercial enterprises in the process of carrying out production and commercial activities, arising from the purchase of raw materials, materials and goods on the one hand, the sale of manufactured products (goods, works, services) and the resale of goods on the other hand;

— relationships between households and employees regarding wages and other benefits;

— relations between households as landlords and tenants arising from the receipt of rent for the use of property, as well as between households as tenants and landlords — regarding the payment of rent for the use of property;

— relations between households and retailers, services (works) and other households arising from goods and services (works) for personal and family consumption;

— relations between households and budgets of different levels and state non-budgetary funds regarding the payment of taxes, fees, mandatory payments on the one hand and the receipt of various social transfers (benefits, pensions) on the other hand;

— relations between members of households arising from the distribution of total income (family income);

— relations between households and professional participants in the securities market arising from the sale and purchase of securities and the receipt of dividends and interest on them;

— relations between households and credit institutions arising from transactions on deposit accounts, accrual and receipt of interest on them, payment for banking services, receipt of bank and consumer loans and their repayment with payment of interest;

— relations between households and professional participants in the insurance market arising from the payment of insurance premiums under contracts for life and health insurance, real estate, vehicles, etc., as well as receiving insurance compensation in the event of insured events;

— relations between households and organizations of the housing market, housing and communal services, construction companies arising from the payment of services of realtors, housing and communal services, construction housing works; relations with communication organizations, telephone and Internet companies — regarding payment for these services;

— relationships between household members and donors, legal and notary services, etc.;

— other monetary relations with enterprises, organizations, other households.

By entering into financial relations, households finance current expenses, pay bills, invest in various instruments, and receive income from various sources. Household income is the total income of all the members of a household. The composition of the total income of households in the Republic of Uzbekistan is shown in Figure 1.

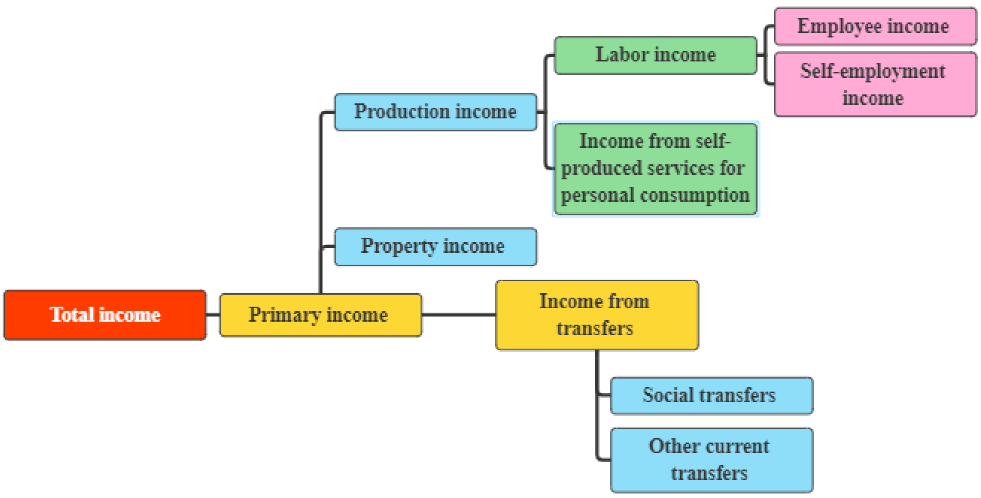

Figure 1. Composition of the total income of households (prepared on the basis of [7])

The incomes considered in this case include salaries and wages from employment, retirement income, business income, investment gains, and government transfers like pensions, social benefits or food stamps. Lenders such as banks use household income as a basis for underwriting loans since the lender can assess the ability of the loanee to honor any arising obligations. Governments also use household income as an indicator of living standards, and it can be used to compare affluence and income levels between cities, states, and countries. For example, comparing the incomes of populations of two different countries can give an idea of the country with a higher quality of life and financial well-being [3].

Let us consider the dynamics of the structure of household income in the Republic of Uzbekistan in 2017-2020 based on the data of the State Committee of the Republic of Uzbekistan on statistics (Table 1).

Table 1. The structure of total income of the population in the Republic of Uzbekistan
(Percentage)

No.	Name of income	2017	2018	2019	2020
	Total aggregate income, total	100.0	100.0	100.0	100.0
	including:				
I.	primary income	80.6	77.5	76.2	75.7
I.1.	income from production	77.4	74.6	73.5	73.6
I.1.1.	income from labor activity	69.2	66.7	66.1	66.2
I.1.1.1.	income of employees	25.8	24.8	27.2	27.5
I.1.1.2.	income from self-employment	43.5	41.9	39.0	38.7
I.1.2.	income from own production of services for own consumption	8.2	7.9	7.4	7.4
I.1.3.	property income	3.1	2.9	2.7	2.1
II.	transfer income	19.4	22.5	23.8	24.3
	Income from small business in the total aggregate income	65.7	64.2	61.8	59.9

**Source: data of the State Committee of the Republic of Uzbekistan on Statistics*

The total income of the population takes into account household receipts:

— that are expected to be received;

— they come on a regular basis with a certain frequency, be expected and come regularly;

— can actually contribute to the current level of household economic well-being;

— and must not be proceeds from the disposal of household capital (for example, the sale of an apartment, shares, and other property).

The total income does not include lottery winnings, prizes received in games, payments on insurance claims to compensate for property damage, inheritances received, lump sums paid upon retirement (retirement), life insurance payments (except for life insurance annuity), sudden (unforeseen) profits, payments on claims for violation of legal rights or for damages (except for payments in compensation for lost profits) and amounts in repayment of debt.

The total income is divided into primary income and transfer income. Primary incomes of the population consist of “income from production” and “income from property”. According to Table 1, primary income in 2017-2020 makes up the majority of household income, while their share in total income is gradually decreasing from 80.6% in 2017 to 75.7% in 2020.

Income from production includes income from employment and income from own production of services for own consumption. In 2017, income from production in the Republic of Uzbekistan amounted to 77.4%, and then the share in the income of the population decreased to 73.6% in 2020.

The share of income from employment in the total income of the population in 2017 amounted to 69.2%, in 2018 – 66.7%, in 2019 – 66.1.0%, in 2020 – 66.2%. Employment income consists of the income of employees and the self-employed.

The income of employees is income in the form of wages in cash and in kind (in the form of goods or services), including the hidden part of wages (i.e. payments by the employer that are not reflected in primary and accounting records). The share of income of employees in 2017 is 25.8%, in 2018 – 24.8%, in 2019 – 27.2%, in 2020 – 27.5%.

Self-employment income is income received as a result of the involvement of household members in the labor process organized independently. The share of income from self-employment in total household income is decreasing from 43.5% in 2017 to 38.7% in 2020.

Income from own production of services for own consumption includes imputed services of owner-occupied housing not intended for the market. This category does not include household services of own production (cooking, house cleaning, child care, etc.), as they cannot be accumulated and stored for possible sale on the external market. The share of these incomes in the income of the population is gradually decreasing from 8.2% in 2017 to 7.4% in 2020.

Property income is defined as income to households associated with the ownership of financial and non-financial assets transferred for use by others. Property income represents income from interest, dividends, rents for the use of non-produced assets, and royalties from the use of intellectual property. In 2017, the share of property income in the total income of the population was 3.1%, in 2018 – 2.9%, in 2019 – 2.7%, in 2020 – 2.1%.

Transfers are receipts of goods, services and assets to a household without receiving compensation from it in the form of a good, service or asset. Transfers can consist of money (money transfers) and goods or services (in-kind transfers), from other households, the government, philanthropic institutions, and from outside the country's borders.

Current transfers are divided into social (social insurance payments and social assistance measures) and other (payments from organizations and other households). Social transfers include pensions, allowances and scholarships. Other current transfers include payments to the household from other legal entities and individuals (regular financial support, such as alimony, support from children or parents, payments on a regular basis from charitable non-profit organizations, trade unions, etc.). The category of other current transfers also includes money transfers from abroad, including those received by individuals from labor and entrepreneurial activities. In 2017-2020, the share of income from transfers in the total income of the population increased from 19.4% in 2017 to 24.3% in 2020.

It should also be noted that as part of the total aggregate income of the population, income received from small businesses amounted to 65.7% in 2017, 64.2% in 2018, 61.8% in 2019, and 59% in 2020.

Based on the results of studying the nature and structure of household income in the Republic of Uzbekistan, the following conclusions can be drawn:

— household incomes are money relations between households and public authorities, commercial enterprises, budgetary organizations, public associations and other individuals, as a result of which the family budget and other money funds of the population's funds are formed;

— in the Republic of Uzbekistan, to assess the income of the population, such indicators as total income, primary income, income from production, income from labor activity, income of employees, income from self-employment, income from own production of services for own consumption, income from property and transfer income are used;

— in the structure of household income in 2017-2020, primary income decreases from 80.6% to 75.7%, and income from transfers increases from 19.4% to 24.3%. The share of income of employees decreases from 25.8% to 27.5%, the share of income from self-employment also decreases from 43.5% to 38.7%, while the share of property income slightly decreases from 3.1% to 2.1%;

— more than half of the income of the population is associated with the functioning of small businesses and the implementation of entrepreneurial activities of citizens. The share of income from small business in the total income of the population decreases from 65.7% in 2017 to 59.9% in 2020;

— the composition and structure of household incomes are important indicators for the development and implementation of state financial policy directions, the provision of financial assistance to the population, and the simulation of the entrepreneurial activity of the population.

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Issue Article

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STUDYING THE OPEN BUDGET SURVEY AS A KIND OF INDEPENDENT WORK OF STUDENTS

Abstract*: This article describes the purpose of studying the discipline "State Budget" by undergraduate students of the direction of study 5230600-"Finance"; considers the requirements for the level of knowledge, skills, and abilities of students who have studied this discipline; gives a description of the content of each module of the discipline; lists traditional types of independent work of students; considers the concept of the Open Budget Survey ranking; and gives examples of tasks for organizing students' independent work, which must be completed using the data from the official website of this ranking.*

Key words*: state budget, independent work, Open Budget Survey.*

Language*: English*

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Introduction

The state budget is the main centralized fund of the state, providing public authorities with the necessary financial resources to perform their functions and tasks. Students of all economic areas of undergraduate studies in the Republic of Uzbekistan study the basics of the functioning of the state budget within the discipline "Finance", and students of the direction of study 5230600-"Finance" receive knowledge, skills, and abilities in this area, studying the discipline "State budget".

The main goal of the discipline "State budget" is to develop students' theoretical knowledge of the state budget and practical skills for the effective organization of budgetary relations.

To achieve this goal, this discipline performs the tasks of forming theoretical knowledge, practical skills, methodological approaches to organizing budgetary relations and a scientific worldview. Based on the results of studying this academic discipline, students should:

— have an idea about: the budget system, the budget structure, the essence, necessity, and functions of the state budget; the content, objectives, and stages of development of budget policy; the basics of management and regulation of the budget system; the budget system and the budget process of foreign countries; the composition and structure of budget revenues and expenditures, sources of income generation, composition, and structure of budget expenditures; forms of interbudgetary relations between the republican and local budgets, forms of organization of budgetary relations;

— know and be able to use: patterns of development of the budget system; evaluation and analysis of the positions of the state budget; basics of budget forecasting; organization of the budget process, integrity, and differences in the distribution of powers to manage the republican and local budgets; the basics of budgetary powers of central and local governments and authorities; the fundamentals of the financial and budgetary legislation of the Republic of Uzbekistan; the strategy and tactics of developing the state budget; the theory and practice of treasury execution; the principles of organizing the budget system;

— have practical skills: making calculations of forecast indicators of the budget, analyzing the results of budget execution; organization and evaluation of the activities of the budget system management bodies; analysis of the current state and patterns of development of the budgetary system and budgetary device; organization of activities of budgetary control bodies; fulfillment of obligations of budget recipients and budget organizations; regulation of activity of budgets of the budgetary system; organizing the activities of treasury services, compiling reports on the execution of the budget and compiling and analyzing reports on the execution of estimates of budgetary organizations, developing financial plans for budget recipients, applying financial norms, checking the correctness of plans, using new computer technologies in their activities by budgetary system management bodies, using regulatory and legal documents in budget practice, conducting scientific research in order to determine the patterns of budget development.

The academic discipline “State budget” includes the following modules:

— Module 1. “Theoretical foundations of the state budget.” The themes of this module cover an introduction to the discipline “State budget”, the nature and importance of the state budget, the budget structure and budget system, the legal foundations of the state budget, the fiscal policy of the state, public budget management, interbudgetary relations and budget classification;

— Module 2. “The system of revenues and expenditures of the state budget.” This module examines the system of revenues and expenditures of the state budget, the state of the state budget and the budget process.

— Module 3. “Planning and financing of state budget expenditures”. The materials of this module reveal the issues of planning and financing the expenditures of budgetary organizations, state budget expenditures on education, healthcare, culture and sports, social security, economic goals, maintenance of government bodies;

— Module 4. “Budget control and organization of the budget process in foreign countries.” The themes of this module cover the basics of organizing budget control and the budget process in foreign countries.

The discipline "State budget" is studied for 2 semesters. The total number of hours of discipline is 186 hours, of which 52 hours are lectures, 52 hours are practical classes, and the remaining 82 hours or 44% of the total number of hours is self-education of students.

Traditional types of independent work of students include taking notes on educational material (textbooks, teaching aids, texts of lectures), writing essays, solving tests, writing essays [1-11]. Recently, in the teaching of special disciplines, more and more people are trying to use new ways of organizing students' independent work [12].

One of the types of organizing students' independent work is searching for information on the Internet, working with various sites, reading articles and other materials, studying statistical, practical and analytical reports. Let's consider the options for effective organization of independent work on the study of the discipline “State budget” on the example of the International Budget Partnership website, which publishes the materials of the Open Budget Survey ranking.

According to the official Internet-site located at https://www.internationalbudget.org/, The Open Budget Survey ranks countries according to their level of accountability in national budget processes. It is the world’s only comparative, independent and regular assessment of transparency, oversight and participation in national budgets in 120 countries. A country's budget transparency score, reflected on the Open Budget Index, assesses the public's access to timely and comprehensive budget information. A transparency score of 61 (out of 100) or higher indicates a country is publishing sufficient information to support informed public debate. The OBS 2021 also measures the extent to which governments include the public in budget decision-making and monitoring, as well as the role and effectiveness of the legislature and supreme audit institution in the budget process. Now, let’s discuss possible tasks for self-study work.

Task 1. Studying the Open Budget Survey website.

Students should open the site https://www.internationalbudget.org/, analyze its structure, the main pages of the site and write a brief note up to 5 pages with answers to the following questions:

— what is the design of the site?

— what are the main sections of the site and their names?

— what information is provided on the site?

— how many pages of the site are devoted to the description of the Open Budget Survey ranking?

Task 2. Description of the history of the emergence of the Open Budget Survey ranking and its significance.

Based on the study of the site materials, students should find information on the following issues:

— what is the Open Budget Survey ranking?

— what is the history of its creation?

— what is the unit of measure for the ranking?

— how many countries took part in the first ranking?

— how many countries participated in the last ranking?

— what is the dynamics of the ranking during the event?

— why is this ranking important for the countries of the world today?

— what information does this ranking provide for national governments, businesses, non-profit organizations, citizens, international financial institutions, scientific organizations, individual researchers and experts?

Task 3. Studying the methodology for calculating the ranking of the Open Budget Survey [13].

Students should carefully study the ranking methodology and provide information on the following points:

— what is the ranking scale of the Open Budget Survey?

— what groups of indicators are used in its calculation?

— what is public availability of budget information?

— how are indicators of public availability of budget information evaluated?

— what are opportunities for the public to participate in the budget process?

— how are indicators of opportunities for the public to participate in the budget process evaluated?

— what is the role of formal oversight institutions?

— how are indicators of the role of formal oversight institutions evaluated?

Task 4. Studying the dynamics of one of the three groups of indicators of the Open Budget Survey ranking.

Students must select one of the ranking components and prepare information on the following issues:

What does this ranking component mean?

— what is the dynamics of this indicator over the years of ranking measurement?

— which countries have the highest performance in this component?

— which countries have the lowest scores for this component?

— in which countries there is practically no dynamics of this component?

Task 5. Studying the indicators of one of the world's countries in the ranking of the Open Budget Survey.

Each student must choose one of the countries of the world that participates in the calculation of this ranking, find data for the selected country and answer the following questions:

— how long has this country been participating in the ranking?

—how did its indicators change in the whole ranking and for each component?

— is the questionnaire published for this country?

— what responses were received to each of the questions in the questionnaire?

— what is the final score for these answers?– What is the transparency of the country compared to others?

— what are public availability of budget documents of this country?

— how comprehensive is the content of the key budget documents that this country makes available to the public?

— what recommendations are given to this country to improve budget transparency?

— what is public participation in the country compared to others?

— what is the extent of opportunities for public participation in the budget process?

— what recommendations are given to this country to further strengthen public participation in the budget process?

— what are the budget oversight indicators of the country?

— what recommendations are given to this country to improve the budget oversight indicators?

The use of various tasks for studying the Open Budget Survey ranking for self-study of students will improve the quality of education in such an important discipline as the “State Budget” and will serve as the training of highly qualified specialists.

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GIF (Australia) = **0.564**	**ESJI** (KZ) = **8.771**	**IBI** (India) = **4.260**
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Issue **Article**

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THE IMPORTANCE OF PHYSICAL EDUCATION IN MODERN SCHOOLS

Abstract: *There are many benefits physical education provides today's students and society. Within a school setting, a physical education program can serve society in many ways if implemented and utilized appropriately. There are many areas physical education can serve and positively affect students and society. One is overall physical fitness. For example, physical education helps students and society improve skill-related components such as speed, agility, reaction time, balance, coordination, and basic movement patterns. Physical education helps students and society improve upon are strength, endurance, flexibility, and cardiovascular/respiratory activities. This paper explores the scientific evidence that has been gathered on the contributions and benefits of physical education and sport in schools for both children and for educational systems. The review suggests that physical education have the potential to make significant and distinctive contributions to development in each of these domains. It is suggested that physical education have the potential to make distinctive contributions to the development of children's fundamental movement skills and physical competences, which are necessary precursors of participation in later lifestyle and sporting physical activities.*

Key words: *Physical activity, physical education, sports, health, schools.*

Language: *English*

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Introduction

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Schools are widely recognized as important settings for the promotion of physical activity among young people. The vast majority of children and adolescents spend most hours of their day at school, so it is essential that they be given ample opportunity to be physically active if they are to reach the recommended level of 60 min/day . The school years are a time for teaching young people the skills, knowledge and behaviour for lifelong habits. Physical activity has not only health benefits and contributes to a child's physical, mental and emotional development but also has potentially broad social and academic gains.

Physical activity is central to health, and its importance clearly extends beyond its role in achieving energy balance to prevent and treat obesity and overweight. Adequate daily physical activity improves cardiovascular health, metabolic health, brain and mental health, and musculoskeletal health—benefits that recent research shows are gained across the life span. Important emerging research has further focused on the association between physical activity in youth and academic achievement.

Clinical and public health guidelines indicate that youth need a minimum of 60 minutes per day of vigorous- or moderate-intensity physical activity to optimize health and development. Because many youths spend a substantial amount of time in school, this report focuses specifically on the role schools can play in increasing physical activity among youth and providing opportunities to meet these guidelines. This role falls squarely within schools' long-standing tradition of providing access to health-related services such as health screenings, nutrition programs, and immunizations. The assumption that school-based physical education can provide enough physical activity for children and adolescents has recently been challenged on a variety of fronts. First, the 60 minutes per day of physical activity that is health enhancing is nearly impossible to achieve through physical education, even with the highest-quality physical education curriculum. Second, quality physical education must include time for teaching activities and lessons that may not be physically active. Third, political and economic pressures on education systems to improve standardized test scores have had the unintended consequence of reducing or eliminating physical education curricula and thus students' opportunities for physical activity. Therefore, the purpose of this article is to highlight the central need not only to provide quality physical education for all youth but also to implement other evidence-informed methods schools can use to help all children and adolescents attain a minimum of 60 minutes of vigorous- or moderate-intensity physical activity per day to improve health, development, and academic performance.

Literature review

Physical inactivity is a key determinant of health outcomes across the life span. A lack of activity increases the risk of heart disease, colon and breast cancer, diabetes mellitus, hypertension, osteoporosis, anxiety and depression, and other diseases. Recent studies have found that in terms of mortality the global population health burden of physical inactivity approaches that of cigarette smoking and obesity (Lee et al., 2012). Indeed, the prevalence of physical inactivity, along with this substantial associated disease risk, has been described as a pandemic (Kohl et al.,2012). Further, higher educational achievement and years of schooling are both markers and determinants of better health status, mainly as a result of education's correlation with improved work and economic conditions, enhanced social psychological resources, and the ability to pursue a healthful lifestyle (Ross and Mirowsky, 1999). There is a long-held belief that health is an important determinant of educational performance, yet only recently has evidence begun to accumulate on a plausible physiologic pathway explaining the influence of one important health behavior—physical activity—on brain function and cognitive processes. These data increase confidence that improving physical activity and fitness may result in better school achievement and performance.

Unless they take a nap or lie down to rest, all people are physically active from the time they get up in the morning until they go to bed at night. Physical activity is a necessary part of everything people do at home, work, or school; while going from place to place; and during leisure time. In the still-emerging field of physical activity and public health, physical activity is commonly defined as "any bodily movement produced by skeletal muscles that results in energy expenditure" (Caspersen et al., 1985, p. 126). Despite this straightforward definition, physical activity is a complex behavior with a wide variety of types and intensities. Types of physical activity may be categorized, for example, by type of movement (e.g., walking, skipping), by sport (e.g., soccer, badminton), by life context (e.g., at school, at home, during transportation), or by predominant physiologic effect (e.g., cardiorespiratory conditioning, muscle strengthening). Regardless of the categorization scheme, physical activity operates through multiple physiologic pathways to influence many health outcomes. Although physical activity can be categorized and discussed in many ways, aerobic activities are the most common and have the broadest physiologic and health effects. Aerobic activities are commonly categorized as being of sedentary, light, moderate, or vigorous intensity based on the rate of energy expenditure.

Physical Education

Physical education became a subject matter in schools (in the form of German and Swedish gymnastics) at the beginning of the 19th century (Hackensmith, 1966). Its role in human health was quickly recognized. By the turn of the 20th century, personal hygiene and exercise for bodily health were incorporated in the physical education curriculum as the major learning outcomes for students (Weston, 1962). The exclusive focus on health, however, was criticized by educator Thomas Wood (1913; Wood and Cassidy, 1930) as too narrow and detrimental to the development of the whole child. The education community subsequently adopted Wood's inclusive approach to physical education whereby fundamental movements and physical skills for games and sports were incorporated as the major instructional content. During the past 15 years, physical education has once again evolved to connect body movement to its consequences (e.g., physical activity and health), teaching children the science of healthful living and skills needed for an active lifestyle (NASPE, 2004). Sallis and McKenzie (1991) published a landmark paper stating that physical education is education content using a "comprehensive but physically active approach that involves teaching social, cognitive, and physical skills, and achieving other goals through movement" (p. 126). This perspective is also emphasized by Siedentop (2009), who states that physical education is education through the physical. Sallis and McKenzie (1991) stress two main goals of physical education: (1) prepare children and youth for a lifetime of physical activity and (2) engage them in physical activity during physical education. These goals represent the lifelong benefits of health-enhancing physical education that enable children and adolescents to become active adults throughout their lives.

Children in elementary and middle school spend about 10-40 percent of their time in physical education classes engaged in vigorous- or moderate-intensity physical activity (Simons-Morton et al., 1993, 1994; McKenzie et al., 1996; Sallis et al., 1997; Belsky et al., 2003; McKenzie et al., 2006). On average they have two physical education class periods per week, each for about 30 minutes (Belsky et al., 2003). Assuming that 35 percent of physical education time is spent in vigorous- or moderate-intensity physical activity, children spend an average of 4 minutes per school day doing vigorous-or moderate-intensity physical activity in physical education classes. If elementary school students had 30 minutes of physical education daily (150 minutes per week) and middle school students had 45 minutes of physical education daily (225 minutes per week), the estimated number of minutes per day spent doing vigorous or moderate-intensity physical activity during physical education would increase to 11 minutes and 16 minutes, respectively. If the proportion of time in vigorous- or moderate-intensity physical activity during physical education were increased to 50 percent through the use of standardized high-quality physical education programs, the average time per day would increase to 15 minutes and 23 minutes for elementary and middle school students, respectively. High school students also average 2 days per week of physical education classes (Delva et al., 2006). If the proportion of time they spent in vigorous- or moderate-intensity physical activity during physical education were assumed to be similar to that for primary school students, they would average 4 minutes per day currently, 16 minutes per day if they attended the classes daily, and 23 minutes per day if the classes were both daily and of high quality. These estimates are a bit lower than those in a recent analysis (Bassett et al., 2013).

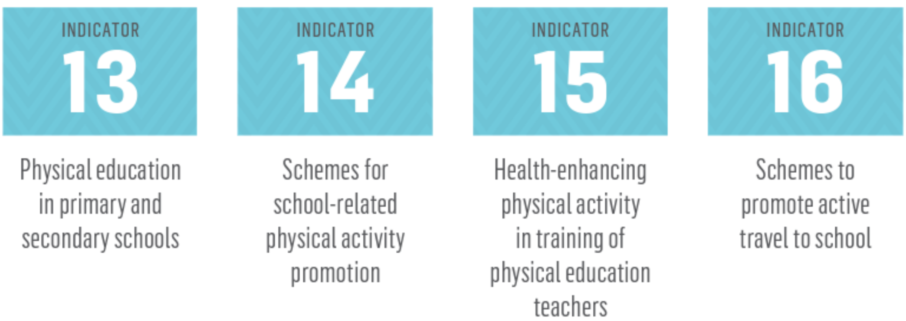
Methodology

This airticle provides a snapshot of the current status of promotion of physical activity in the education sector in EU Member States. It presents data collected on several indicators (Box 1) designed to monitor physical education in primary and secondary schools throughout the EU, diverse schemes for school-related physical activity promotion, specialized training for physical education teachers and schemes to encourage active travel to school.

For indicator 13, countries were asked to report the total number of hours of physical education provided in primary and secondary schools per week, how many of those hours were mandatory and how many optional and whether the quality of physical education was monitored. Countries were also asked whether they had national schemes for increasing physical activity before, during and after the school day (indicator 14) and if they had national schemes to promote active travel to school (indicator 16). An additional indicator was whether health-enhancing physical activity was a module in the curriculum of physical education teachers and whether it was a mandatory or an optional part of their training.

Physical activity in schools can be increased in several ways. The most broadly used practice is physical education, which is part of the school curriculum in all EU Member States; however, the number of hours of physical education provided, whether compulsory or optional, and the quality vary widely among countries. In order to provide good-quality, regular physical education and promote safe physical activity to all young people in schools, physical education teachers must be adequately trained in promoting health-enhancing physical activity, in addition to traditional sports. More inclusive, varied activities should be offered, as traditional, competitive sports are often not suitable for all young people and especially those who are most in need of physical activity.

Box 1. Indicators of physical activity addressed in this article.



Results

Member States provided various examples of initiatives to promote physical activity through the education sector or in schools, nationally or subnationally. The most common were improving the quality or increasing the quantity of physical education lessons and promoting active travel to school. Some of the examples consisted of after-school programmes, and only a few were for active school breaks and active breaks during school lessons, in line with the responses to the questionnaire. These examples of good practices can provide inspiration for policy-makers, schools and researchers. They provide a broad overview of the type of actions taken to increase physical activity among children and adolescents in EU Member States.

All Member States provide physical education classes in schools, and most included 2 h/week in the school curriculum. In many cases, the number of hours depended on school or subnational policies. Twenty countries reported that the number of hours of physical education was mandatory in primary schools, and 21 reported the same for secondary schools (Fig. 1).

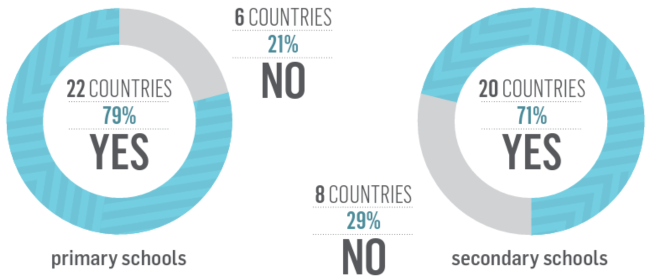


Fig. 1. **Proportion of countries that reported that all hours of physical education in schools were mandatory.**

Fig.1

In the remaining countries, the hours were either partly or entirely optional. The answers to the questionnaire showed that 20 countries monitor the quality of physical education in primary or secondary schools (Fig. 2).

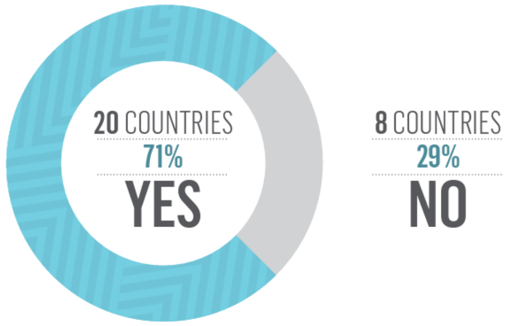


Fig. 2. **Proportion of countries that reported monitoring the quality of physical education classes.**

Fig.2

Monitoring is conducted in various ways in Member States, including school inspections, screening, quality audits, qualitative and quantitative research with students and teachers and, in some cases, reaching targets as part of the curriculum. Twenty-one countries (75%) reported that training in health-enhancing physical activity was included as either a mandatory or an optional module in the curriculum for physical education teachers (Fig. 3).

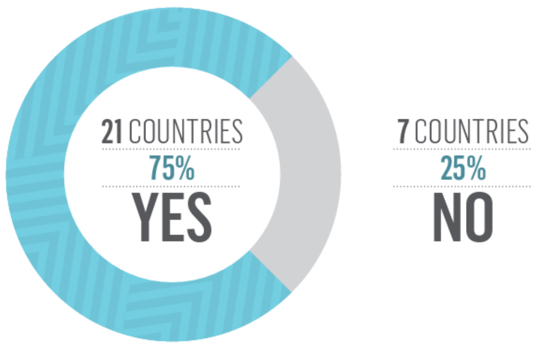


Fig. 3. **Proportion of countries in which the curriculum of physical education teachers included a module on physical activity and health.**

Fig.3

Many activities to increase physical activity before, during and after school hours were reported. After-school activities were the most common scheme, 19 Member States offering this at national level. Additionally, 14 countries reported national initiatives for active school breaks; 14 had programmes for active travel to school, and 11 countries had schemes for active breaks during school lessons (Fig. 4).

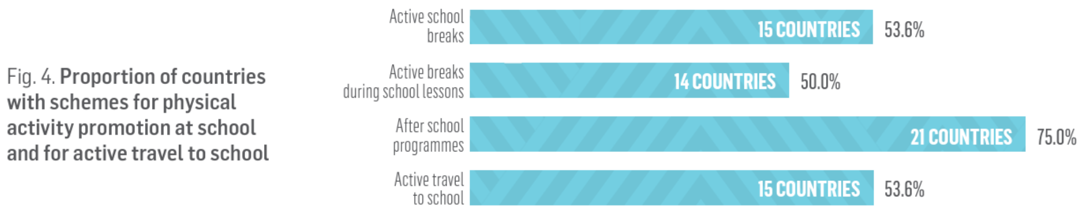


Fig.4

In addition, 12 countries (43%) reported that physical activity in the education sector was monitored or surveyed, and 18 (75%) reported that funding had been allocated specifically to health-enhancing physical activity; 26 (93%) had at least one policy or action plan to promote physical activity in the education sector.

BELGIUM

Sport after school pass (Sport na school pass)

The "Sport after school pass" (SNS pass) offers affordable after-school sport for all secondary school pupils with the goal of increasing their participation in sport, especially for those who are inactive. The programme introduces young people to local sports facilities and inspires them to participate in sports throughout their lives. It also encourages secondary school pupils to use the sports facilities of selected local sports clubs and sports providers immediately after school. Pupils can choose where, when, with whom and how often they engage in sports. Various activities are tailored to the interests of the target group and take place in different sports facilities or schools in the neighbourhood. The local programme of sports activities is established in consultation with the municipal sports department(s), local sports clubs, schools and private sports centres. The "Flexible assignment of physical education teacher" (Follo) is responsible for organization, coordination and cooperation with the various partners. In the academic year 2017–2018, 12 780 passes were active in 852 schools in 208 municipalities. The number of Follos will be increased shortly, and guidance on afterschool sports activities will be included in the "lessons package" of physical education teachers. There are plans to expand the programme throughout Flanders.

CROATIA

Polygon for physical activity of schoolchildren[1]

In Croatia, approximately 14% of the main elementary schools and 83% of peripheral schools do not have sports facilities. To support teachers in providing physical education that meet students' needs for physical activity, kinesiological equipment known as the "Polygon for physical activity of schoolchildren" was designed in the National Health Promotion Programme, "Healthy living". This set of moveable equipment consists of 25 elements, which are easy to assemble and disassemble. The materials in the equipment were tested for safety at the Faculty of Mechanical Engineering and Naval Architecture, and the equipment was tested for functionality and for use by children with disabilities by experts at the Faculty of Kinesiology. Additionally, a manual was prepared to help teachers to use the equipment. The Ministry of Health has pilot-tested a multisectoral intervention for developing and maintaining the habit of physical activity in school-aged children through use of the Polygon equipment. The equipment has been provided to 120 main elementary schools with no sports facilities, and three-member teams from each school have been trained in its practical use. In the near future, all peripheral schools without sports facilities will also be provided with the equipment, with training of three-member teams at each school.

CYPRUS

Run for my health[2]

The Ministry for Education and Culture organized a large running event for students in secondary schools, in cooperation with the company OPAP Limassol International Marathon GSO, in January 2018. The race consisted of 1500-m and

[1] https://www.hzjz.hr/wp-content/uploads/2016/10/POLIGON-ZA-TJELESNU-AKTIVNOST-%C5%A0KOLSKE-DJECE.pdf

[2] http://enimerosi.moec.gov.cy/archeia/1/ypp6747a

3000-m distances for male and female students. The purpose of the event was to motivate participants to increase their physical activity outside school hours. To ensure students' participation, they were required to train during extracurricular school sports periods and to pass a test organized in each school to limit the number of participants in the final race. The schools, and physical education teachers in particular, were fully informed and given instructions during seminars for conducting activities. The race was organized in a festive spirit in the presence of public figures in sports, whom students had the opportunity to meet, such as the Cypriot Fair Play Ambassador football player Constantinos Charalambidis and Cyprus #Be Active lifelong Ambassador Kalli Hadjiosif.

CZECHIA

Tell me your story[3]

"Tell me your story" is a campaign for schools, low-threshold facilities and sports clubs targeting Roma children and children at risk of social exclusion. The attendance of children from poor socioeconomic backgrounds in sports clubs is low, probably because of difficulties of integration and financial means. The targeted clubs are usually poorly equipped for outdoor activities for children. In May 2016, about 60 schools and low-threshold facilities in vulnerable localities took part in this campaign. Altogether, 7 primary and special schools and 12 lowthreshold facilities for children and young people were involved. They organized sports tournaments and competitions in various disciplines, of which ping pong, athletics and ball games were the most popular. The campaign included a challenge for individual children to write or record their experience of sports, with the goal of motivating them to continue to be physically active in their area of interest. The purpose of the stories was to show children that sport can help overcome obstacles and improve various aspects of life. The campaign lasted for 2 years and is planned to continue and be extended.

DENMARK

45 min of physical activity in schools daily

Daily physical exercise was introduced as part of a school reform in 2013. Students in Danish public primary and secondary schools are required to engage in 45 min of physical exercise per day to ensure consistent or improved learning, health and overall well-being. The method by which the 45 min are incorporated into the school day is the responsibility of the school. Activities can be integrated with learning structures or be conducted during time dedicated to exercise. The Ministry provides inspirational material online and invites professionals to learn how to provide physical exercise in the classroom. Schools and municipalities are assisted in designing systematic, structured plans. Motivation, variety and student involvement are emphasized. The activities may be joint ventures with local sports clubs or companies and can stretch over a longer time. They can take place in the classroom, in sports grounds and playgrounds or in the environment surrounding the school. It is planned to continue integrating physical activity into lessons and into the curricula of primary and secondary schools. An evaluation of the initiative showed that inclusion of physical activity in lessons in the Danish language and maths improved the students' well-being and learning. Furthermore, 14% of teachers now incorporate physical activity into everyday teaching; 74% of teachers do so at least once a week, and only 2% never include physical activity in lessons. The students themselves report quieter classrooms, better concentration and a better ability to learn when physical activity is part of a lesson.

ESTONIA

Redesigning physical education[4]

One of the aims of the Fundamentals of Estonian sports policy 2030 is to redesign physical education to include the promotion of lifelong physical activity, habits and motivation to be active. The aim in the near future is to increase the health literacy of all pupils about physical activity. Physical education is to be changed into exercise education, corresponding to today's requirements, at all levels of education. To achieve this, the objectives of exercise and sport curricula will be updated, and integration of this subject into others will be increased, and training sessions will be organized on the main types of exercise (running, swimming, cycling, skiing, orienteering) and games. The objective is to establish a desire and the habit of engaging in exercise and sports. New versions of physical education curricula have been prepared.

Schools in motion[5]

The project "Schools in motion" is a multicomponent approach to physical activity in schools by providing active lessons, active recess, active transport, physical education lessons for lifelong physical activity and indoor and outdoor environments that encourage physical activity. Key elements of the project are the involvement of all school personnel, students and parents in these active solutions. Schools are given various ideas for supporting physical activity among students during recess. Pilot schools have used the solutions that suit them best. Examples include dance recess, providing sports equipment for recess activities, outdoor recess, obstacle courses and changes in the environment.

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[3] http://www.szu.cz/tema/podpora-zdravi/je-to-i-tvuj-pribeh-kampan

[4] http://www.kul.ee/et/tegevused/sport/arengustrateegia-eesti-sport-2030

[5] http://liikumislabor.ut.ee/avaleht

Furthermore, playground leaders, mostly older students, have been trained to organize active games for younger students during recess. Regarding active lessons, teachers in the pilot schools participate in seminars at which possibilities for physical activity during school hours are introduced, such as active breaks, integration of physical activity into lessons and outdoor lessons. Additionally, supportive materials and tools have been developed and are disseminated to teachers, who are encouraged to report good practices. Schools in motion receives support from the Ministry of Social Affairs, the Estonian Ministry of Culture and the Ministry of Education and Research.

FINLAND

Finnish schools on the move[6]

"Finnish schools on the move" is a national programme for establishing a culture of physical activity in Finnish comprehensive schools. The schools and municipalities that participate in the programme implement their own plans to increase physical activity during the school day. The aims are to increase physical activity during lessons, school breaks and after school in order to improve well-being, decrease sedentary behaviour and enhance learning, student participation and active travel to school. The programme is conducted by the Finnish National Agency of Education and the Ministry of Education and Culture. It is financed from the national lottery and coordinated by the LIKES Research Centre for Sport and Health Sciences. Finnish schools on the move started with a pilot phase in 2010–2012. In May 2017, more than 90% of municipalities and 80% of comprehensive schools (2000 schools) were involved in the programme. This is one of the main projects in knowledge and education in the Government programme, which is to be extended throughout the country to ensure 1 h of physical activity by children each day.

GERMANY

National recommendations for physical activity and the promotion of physical activity[7]

The national recommendations were made in the context of the national action plan "In form", the national initiative to promote healthy diets and physical activity. Since 2008, In form has been an important basis for various activities for sustainably improving people's diets and physical activity. The national recommendations for physical activity and physical activity promotion were introduced in 2014 by an intersectoral working group at the Federal Ministry for Health for physical activity promotion in daily living and were made possible by project funding from the Ministry. The recommendations for physical activity and physical activity promotion are for professional stakeholders and organizations, which include all experts and organizations in sports (e.g. sport clubs), education (e.g. child care facilities and schools), the health system (e.g. health insurers), local authorities (e.g. in urban development and spatial planning), politics (e.g. health or education policy) and other relevant areas of society that directly or indirectly influence the development and implementation of measures to promote physical activity or physical activity-related health promotion. They serve as a scientific guide for those stakeholders and organizations in their daily work and in developing strategies for future activities in physical activity promotion. National recommendations for physical activity and the promotion of physical activity were published in 2016, which apply to all age groups as well as to adults with chronic diseases. The next phase is dissemination of the national recommendations, and the methods have been discussed by stakeholders in various fields, including target group-oriented information material. A brochure is being prepared to increase physical activity in settings such as child day-care facilities, schools, workplaces and long-term care facilities.

Conclusion

Clearly, physical activity has the potential to make significant contributions to the education and development of children and young people in many ways, although further research and evaluation will help us better understand the nature of these contributions. Nevertheless, in each of the domains discussed—physical, lifestyle, affective, social, and cognitive—there is evidence that physical activity can have a positive and profound effect. In some respects, such an effect is unique, owing to the distinctive contexts in which physical activity take place. Consequently, there is a duty for those who teach and acknowledge the value of physical activity to act as advocates for its place as a necessary feature of the general education of all children. They need to argue not just for the inclusion of physical activity within the curriculum, and for the provision of sufficient time, but also to stress the importance of the quality of the program and share information on the benefits of physical activity among administrators, parents, and policy makers.

[6] https://liikkuvakoulu.fi/english

[7] https://www.sport.fau.de/files/2015/05/National-Recommendations-for-Physical-Activity-and-Physical-Activity-Promotion.pdf

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Issue **Article**

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THE EFFECT OF WORK ENVIRONMENT ON EMPLOYEE PERFORMANCE THROUGH JOB SATISFACTION AT PT. PEGADAIAN (PERSERO) REGIONAL OFFICE II PEKANBARU

***Abstract**: This study was conducted at PT Pegadaian (persero) Regional Office II Pekanbaru. This study seeks to investigate the influence of the work environment on employee performance through job satisfaction. Work environment (X) is the independent variable, employee performance is the dependent variable (Y) and job satisfaction (Z) is the intervening variable. In this study, the issue was a decrease in the outstanding loan, high employee absenteeism, and increased employee turnover annually as seen from company data and supported by expert opinion. Calculated using Slovin's formula, the sample of this study was 88 respondents from a population of 715 people. Using purposive sampling, the questionnaire was distributed using Google Form. Data collected was tested statistically through the SEM employing WarpPLS 7.0. The study shows that the work environment has a positive and significant effect on employee performance with a t-count of 4.696 (>1.96) and a p-value of 0.001 (<0.05). The work environment also has a positive and significant effect on job satisfaction with a t- count of 6.722 (>1.96) and a p-value of 0.001 (<0.05). Job satisfaction has a positive and significant effect on employee performance with a t-count of 4.150 (>1.96) and p-value of 0.001 (<0.05). The work environment has a positive and significant effect on employee performance through job satisfaction with a p-value of 0.001 (<0.05).*

***Key words**: Work environment; Job Satisfaction; Employee Performance.*

***Language**: English*

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Introduction

Business competition in Indonesia should be considered by a company in the economic and development areas. Development takes place not only physically, but also on a non-physical level, such as the improvement of the quality of human resources. In today's global competition, the workplace demands employee with foresight, innovation, and enthusiasm. According to Sutrisno (2017), to keep up with the dynamic of globalization, human resources greatly affect the achievement of company goals that demand changes in the company to survive.

Despite technological advancement, the role of human resources remains the key to the progress of an organization. The success of the company is inseparable from a comfortable and conducive work environment.Sinambela (2019) describes human resource management as the main center of the company. It is a process of utilizing human resources effectively and efficiently through planning, managing, mobilizing, and controlling values that become human strength to achieve goals. Because human resources play such a significant part in accomplishing goals, various human resource experiences and studies are methodically collected in what is known as human resource management. The management is developed optimally to achieve organizational goals and employee development.

The better the quality of human resources, the better the employee performance. Conversely, low quality of human resources decreases employee performance and will harm the company.Prawirosentono (2017) states that performance is the result of work that can be achieved by a person or group of people in an organization according to their respective authorities and responsibilities to achieve the organizational goals. Employees who share high performance and optimum contributions to the company are due to job satisfaction. According to Sinambela (2019), job satisfaction is a person's feelings towards his work which is resulted from his own efforts (internal) and is supported by things from outside (externally) on work conditions, work results, and work itself.

Job satisfaction is the dream of every employee. Each employee has a different level of satisfaction according to their values. The more components of the job that are tailored to the employee's preferences and needs, the higher the perceived job satisfaction, and vice versa. Sinambela (2019) argues that job satisfaction is related to employee performance. The reason is that job satisfaction refers to the general attitude of an employee toward his work.Someone who is moderately satisfied with their employment has a positive attitude toward it, whereas someone dissatisfied with his job has a negative attitude about it. Hence, it can be said that high job satisfaction will affect employee performance.

Enny (2019) describes that the work environment is everything around employees that can affect employee job satisfaction for maximum performance. The work environment provides facilities that support employees in completing the tasks assigned to them. Priansa (2014) also argues that job satisfaction is the satisfaction or dissatisfaction of a group of employees with their employment as a result of employee interactions with their work environment. From the problems, phenomena, and data mentioned, the authors will discuss in this study examined the effect of the work environment on employee performance through job satisfaction at PT Pegadaian (Persero) Regional Office II Pekanbaru.

Literature Review

Human Resource Management

Widhiastuti (2012) proffers that human resources are related to everyone who works and contributes to an organization or institution that has more advantages than other creatures created by God. The success of an organization is not only determined by the available natural resources but is largely determined by the quality of human resources (Bukit, 2017). Human Resources is one of the input elements just like other input elements such as capital, machinery, raw materials, and technology that are converted through the production process into output in the form of goods or services (Adamy, 2016). According to Sinambela (2019), human resource management is the main center of the company, which is a process of utilizing human resources effectively and efficiently through planning, mobilizing, and controlling values that become human strength to achieve goals.

Work Environment

The work environment is everything around the employees that can affect job satisfaction for maximum work results. In the work environment,some facilities support employees in completing tasks assigned to employees to improve work (Enny, 2019).

Job Satisfaction

According to Handoko in Sudanang (2020), one of the factors that affect employee productivity is job satisfaction.Job satisfaction is a person's feeling towards his work which is produced by his own efforts (internal) and is supported by things from outside (external), on the working conditions, work results, and the work itself (Sinambela, 2019).

Employee Performance

Hersley in Sinambela (2019) asserts that performance is a function of motivation and ability. A person must have a particular level of willingness and ability to execute tasks and jobs. Without a clear grasp of what to do and how to execute it, a person's willingness and skills are ineffective.

Research Hypothesis

H1 :Work environment (X) has an effect on employee performance (Y) at PT Pegadaian (Persero) Regional Office II Pekanbaru.

H2 : Work environment (X) has an effect on job satisfaction (Z) at PT Pegadaian (Persero) Regional Office II Pekanbaru.

H3 : Job satisfaction (Z) has an effect on employee performance (Y) at PT Pegadaian (Persero) Regional Office II Pekanbaru.

H4 : Work environment (X) has an effect on employee performance (Y) through job satisfaction (Z) at PT Pegadaian (Persero) Regional Office II Pekanbaru.

METHOD

This research was analyzed using a quantitative approach. According to Creswell (2017), the observations are converted into numbers that are analyzed using statistical methods. Quantitative research requires researchers to explain how variables affect other variables approach (Creswell, 2017).

Research Location

PT Pegadaian (Persero) Regional Office II Pekanbaru is one of the state-owned enterprises engaged in non-bank financial services. Located at Jalan Tuanku Tambusai No.821, Labuh Baru, Pekanbaru City, Riau 28292.It is a well-known pioneering company in Indonesia. Since this place is the place of theauthor's internships, the author is interested in conducting research in this place.

Population and Sample

Purposive sampling was used to determine the sample. The criteria in this study are permanent employees who understand the problem of this study (Sugiyono, 2017). Purposive sampling was used because the author wanted to obtain more specific goals according to needs. This study involved 88 permanent employees at PT Pegadaian (Persero) Regional Office II Pekanbaru.

Data Types and Sources

This study involved primary and secondary data sources.

Data Collection

Data collection is a method of obtaining data in research. It determines how to obtain data in the form of questionnaires and interviews.

Research Instruments

Validity Test

According to Cooper et al.(in Abdillah, 2015),a validity test aims to determine the ability of the instrument to measure what it is supposed to measure. There were two validity tests in this study, the convergent validity test and the discriminant validity test employing WarpPLS 7.0. Convergent validity is related to the principle that the manifest variables of a construct should be highly correlated. It is assessed based on factor loading and the Average Variance Extracted (AVE). The rule of thumb used in the convergent validity test has a factor loading of 0.6 and an AVE greater than 0.5.

Reliability Test

A reliability test aimsto measure the internal consistency of the measuring instrument. Reliability shows the accuracyand consistency of an instrument in making measurements. The reliability test in PLS can use two methods of Cronbach's alpha and composite reliability. Cronbach's alpha measures the lower limit of the reliability value of a construct, while composite reliability measures the actual value of the reliability of a construct. However, composite reliability is considered better in estimating the internal consistency of a construct. This instrument is said to be reliable if the coefficient of Cronbach Alpha is 0.60 and Composite Reliability is 0.70.

Data Analysis

Referring to Sugiyono (2017), after all of the data from all of the respondents has been obtained, data analysis begins. Activities in data analysis include grouping data based on variables and types of respondents, tabulating data based on variables from all respondents, presenting data for each variable studied, performing calculations to answer the problem formulation, and testing the hypotheses that have been proposed.

Descriptive Analysis

The data only provides an overview of a phenomenon without making generalizations on the data. According to Sujarweni (in Suryani, 2016), descriptive statistics are data processing to describe or provide an overview of the object under study through a sample or population. Descriptive statistics provide an overview of data including the minimum value, maximum value, mean, and standard deviation. In this study, the effect of the work environment on employee performance through job satisfaction at the Pegadaian (Persero) Regional Office II Pekanbaru was investigated.

Quantitative Analysis

Quantitative analysis is used to test the relationship between variables in research by using calculations or statistical tests from the data obtained from the questionnaire and other tools for primary data. In this study, SEM (structural Equation Modeling) PLSemploying WarpPLS (Warp-Partial Least Square) version 7.0 was carried out.

Results And Discussion

This study discusses the effect of the work environment on employee performance with job satisfaction as an intervening variable at PT Pegadaian (Persero) Regional Office II Pekanbaru. The work environment is then an independent variable with the indicators such as adequate facilities, clean workspace, safe workspace, lighting, relationships between co-workers, relationships between superiors and subordinates, responsibility, and cooperation.

Characteristics of Respondents

The characteristics of respondents in this study include age, gender, education level, and years of service at PT Pegadaian (Persero) Regional Office II Pekanbaru.

Characteristics of Respondents by Gender

Most respondents in this study are women. There are 50 female respondents in this study. The large number of women who become permanent employees at PT Pegadaian illustrates that the company does not look at gender and both genders have the same job opportunities. The domination of female employees at PT Pegadaian is because the office requires employees with a high level of accuracy, tenacity, and tidiness to manage work (Andrika, 2004).

Characteristics of Respondents byAge

Age is one of the factors that is closely related to ability at workplace, decision-making, and ability to perform other activities.

Characteristics of Respondents by Education Level

Education is an important consideration in determining employees since the higher the education level, the higher the level of knowledge and skills possessed. It will affect their attitudes and behavior in working on tasks assigned by the company.

Characteristics of Respondents by Length of Service

Length of service is a person's tendency in carrying out his work. The longer a person works, the more experienced he will be. With a long length of service, one has good skills and experience to complete the task.

Descriptive Analysis Of The Work Environment At Pt Pegadaian (Persero) Regional Office Iipekanbaru

The analysis of the work environment has two dimensions. They are the physical work environment and non-physical work environment. For each dimension, four statements were submitted. There were eight statements derived from the research indicatorsto measure the work environment at PT Pegadaian (Persero) Regional Office II Pekanbaru.Employee responses were categorized into‘very conducive’, ‘conducive’, ‘neutral’, ‘not conducive’, and ‘not conducive at all’. The following is the descriptive discussion of the work environment at PT Pegadaian (Persero) Regional Office II Pekanbaru:

Dimension of the Physical Work Environment

The dimension of the physical work environment is the extent to which PT Pegadaian (Persero) Regional Office II Pekanbaru has a direct physical influence on employees.

Dimension of Non-Physical Work Environment

The dimension of the non-physical work environment is the extent to which PT Pegadaian (Persero) Regional Office II Pekanbaru influences employee’s working conditions in an intangible way.

Descriptive Analysis Of Job Satisfaction At Pt Pegadaian (Persero) Regional Office Ii Pekanbaru

The analysis of job satisfaction has three dimensions the employment relationship, workplace challenges, and employment protection. For each dimension, there are three statements. The total number of statements was 9 items. The statements were generated from the research indicators to measure job satisfaction at PT Pegadaian (Persero) Regional Office II Pekanbaru.

Dimensions of Employment Relationship

The dimension of the employment relationship is the extent to which PT Pegadaian (Persero) Regional Office II Pekanbaru has an influence on the relationship with employees based on the agreement.

Dimensions of Workplace Challenges

The dimension of work challenges is the extent to which PT Pegadaian (Persero) Regional Office II Pekanbaru influences the ability of employees to work moderately.

Dimensions of Employment Protection

The dimension of employment protection feres to what extent or how much PT Pegadaian (Persero) Regional Office II Pekanbaru guarantees equal opportunities for the welfare of workers.

Descriptive Analysis Of Employee Performance At Pt Pegadaian (Persero) Regional Office Ii Pekanbaru

The analysis of employee performance has eight dimensions includingthe quantity of work, quality of work, workplace knowledge, creativity, cooperation, reliability, initiative, and personal quality. For each dimension, two statements were constructed making a total of 16 statements. The statements were derived from research indicators to measure employee performance at PT Pegadaian (Persero) Regional Office II Pekanbaru. Descriptive discussion of employee performance at PT Pegadaian (Persero) Regional Office II Pekanbaru are:

Dimension of Quantity of Work

The dimension of the quantity of work is to what extent or how much PT Pegadaian (Persero) Regional Office II Pekanbaru affect the distribution of the number of task or work in a specified period.

Dimension of Quality of Work

The dimension of the quality of work is to what extent or how much PT Pegadaian (Persero) Regional

Office II Pekanbaru influences the quality that must be attained based on the condition of readiness.

Dimension of Workplace Knowledge

The dimension of workplace knowledge is to what extent or how much PT Pegadaian (Persero) Regional Office II Pekanbaru influences employees' knowledge in their respective fields of work.

Dimension of Creativity

The dimension of creativity is to what extent or how much PT Pegadaian (Persero) Regional Office II Pekanbaru influences the ideas that are proposed as a means of resolving existing issues.

Dimension of Cooperation

The dimension of cooperation is the extent to which PT Pegadaian (Persero) Regional Office II Pekanbaru influences the willingness of employees to cooperate with co-workers.

Dimension of Reliability

The dimension of reliability is the extent to which PT Pegadaian (Persero) Regional Office II Pekanbaru has an influence on awareness of employee attendance and work targets.

Dimension of Initiative

The dimension of the initiative is the extent to which PT Pegadaian (Persero) Regional Office II Pekanbaru has an influence on employees in the form of enthusiasm to carry out new tasks and in improving the sense of responsibilitiy.

Dimension of Personal Quality

The dimension of cooperation is the extent to which PT Pegadaian (Persero) Regional Office II Pekanbaru influences employee personality, leadership, friendliness, and personal integrity. In the following table, the employee performance at PT Pegadaian (Persero) Regional Office II Pekanbaru is presented based on the dimension of personal quality. (Tabel tidak tersedia)

Instrument Testing

Evaluation of the Outer Model

At this initial stage of the outer model, the authors designed the initial research model according to the hypothesized model.Primary data was processed and estimated using the WarpPLS 7.0 application. This step was carried out to determine a good research model, which would be used as the author's hypothesis analysis. The results of the estimation using the WarpPLS in the initial model can be seen in Figure 1.

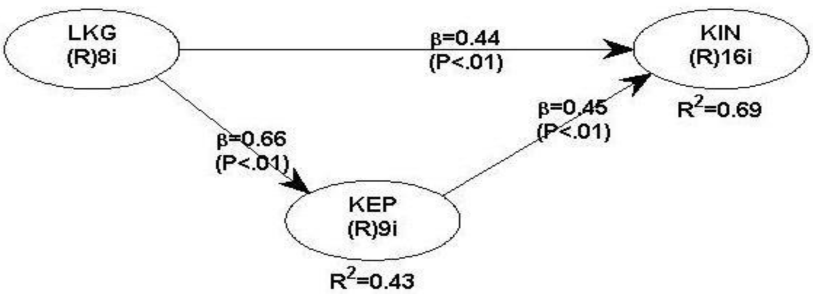

Figure 1 - Evaluation of Outer Model

Source: Data from WarpPLS 7.0

Validity Test

This test was carried out to test the accuracy of the data to avoid bias. The validity test in this study was divided into convergent validity and discriminant validity.

Convergent Validity

The evaluation of the first stage of the measurement model was started by looking at the convergent validity through the factor loading. The validity test of reflective indicators was assessed based on the correlation of the scores between the indicator and the construct. Individual reflexive measures are said to be high if they correlate more than 0.70 with the construct being measured. However, according to Chin (in Ghozali, 2013), for the early stages of developing a measurement scale, a factor loading of 0.5 to 0.6 is considered sufficient. The following is the value of the outer loading of each indicator on the research variables. The convergent validity test is carried out by looking at the outer loading which can be seen in Table 1.

Table 1. Outer Loading

	Work Environment	Job Satisfaction	Employee Performance	Description
X.1	0.906			Valid
X.2	0.762			Valid
X.3	0.742			Valid
X.4	0.863			Valid
X.5	0.745			Valid
X.6	0.855			Valid
X.7	0.826			Valid
X.8	0.872			Valid
Z.1		0.917		Valid
Z.2		0.911		Valid
Z.3		0.808		Valid
Z.4		0.883		Valid
Z.5		0.896		Valid
Z.6		0.823		Valid
Z.7		0.880		Valid
Z.8		0.881		Valid
Z.9		0.855		Valid
Y.1			0.913	Valid
Y.2			0.865	Valid
Y.3			0.854	Valid
Y.4			0.930	Valid
Y.5			0.916	Valid
Y.6			0.927	Valid
Y.7			0.791	Valid
Y.8			0.937	Valid
Y.9			0.889	Valid
Y.10			0.908	Valid
Y.11			0.896	Valid
Y.12			0.907	Valid
Y.13			0.913	Valid
Y.14			0.814	Valid
Y.15			0.801	Valid
Y.16			0.884	Valid

Source: Data from WarpPLS 7.0

In this study, the work environment constructs have consisted of eight items. Based on the analysis, the loading factors were > 0.50. This explains that all indicators in the work environment have met the requirements of convergent validity. In this variable, the lowest loading factor is on the third question with a value of 0.742.

The construct of job satisfaction consists of nine items. The factor loading has a value of > 0.50 indicating that all indicators in the construct of job satisfaction have met the convergent validity requirements. In this variable, the lowest factor loading is on the third question with a value of 0.808.

The construct of employee performance consists of 16 items. Based on the analysis, the factor loading was> 0.50. This proves that all indicators in the construct of employee performance have met the convergent validity requirements. In this variable, the lowest loading factor is on the seventh question with a value of 0.791.

In addition, the convergent validity showed the Average Variance Extracted (AVE). The construct is said to have a good validity if the AVE has a value greater than 0.5 (AVE> 0.5). From the estimation using WarpPLS7.0, the following is obtained:

Table 2. Average Variance Extracted (AVE)

	Average Variance Extracted (AVE)
Work Environment	0.678
Job Satisfaction	0.763
Employee Performance	0.783

Source: Data from WarpPLS 7.0

The AVE obtained for the work environment was 0.678, job satisfaction was 0.763, and employee performance was 0.783. They have exceeded the value of > 0.5. This indicates that one latent variable can explain more than half of the variance. Thus, the research construct has good convergent validity.

Discriminant Validity

Discriminant validity used cross-loading. An indicator is declared to meet discriminant validity if the cross-loading is the largest of all variables. To see the results of the discriminant validity, the correlation between indicators was compared. Table 3 is the cross-loading of each indicator:

Table 3. Cross Loading

	Work Environment	Job Satisfaction	Employee Performance	Description
X.1	**0.906**	0.007	0.043	Valid
X.2	**0.762**	0.120	-0.075	Valid
X.3	**0.742**	-0.096	-0.039	Valid
X.4	**0.863**	-0.121	-0.033	Valid
X.5	**0.745**	0.130	-0.115	Valid
X.6	**0.855**	0.170	-0.290	Valid
X.7	**0.826**	-0.110	0.199	Valid
X.8	**0.872**	-0.083	0.280	Valid
Z.1	0.011	**0.917**	0.078	Valid
Z.2	-0.003	**0.911**	0.152	Valid
Z.3	-0.126	**0.808**	0.035	Valid
Z.4	-0.046	**0.883**	-0.138	Valid
Z.5	0.000	**0.896**	0.111	Valid
Z.6	0.358	**0.823**	-0.174	Valid
Z.7	-0.259	**0.880**	0.073	Valid
Z.8	0.136	**0.881**	-0.221	Valid
Z.9	-0.061	**0.855**	0.068	Valid
Y.1	-0.164	-0.031	**0.913**	Valid
Y.2	-0.017	-0.083	**0.865**	Valid
Y.3	0.181	-0.030	**0.854**	Valid
Y.4	0.083	-0.010	**0.930**	Valid
Y.5	-0.036	0.181	**0.916**	Valid
Y.6	-0.021	-0.008	**0.927**	Valid
Y.7	0.361	-0.029	**0.791**	Valid
Y.8	-0.146	0.022	**0.937**	Valid
Y.9	0.003	0.040	**0.889**	Valid
Y.10	0.000	-0.053	**0.908**	Valid
Y.11	-0.119	-0.085	**0.896**	Valid
Y.12	0.037	-0.120	**0.907**	Valid

Y.13	0.120	-0.011	**0.913**	Valid
Y.14	-0.164	-0.043	**0.814**	Valid
Y.15	-0.045	0.194	**0.801**	Valid
Y.16	-0.038	0.075	**0.884**	Valid

Source: Data from WarpPLS 7.0

Based on Table 3, all indicators have met the criteria for discriminant validity. The work environment has a loading value of >0.50. In addition, the correlation of all indicators is a high correlation to the work environment compared to job satisfaction and employee performance. This shows that all indicators of the work environment meet the requirements of discriminant validity.

Job satisfaction as a mediating variable has a value of more than 0.50. All indicators have a high correlation to job satisfaction compared to the work environment and employee performance. This proves that all indicators of job satisfaction meet the requirements of discriminant validity.

The dependent variable of this study is employee performance. This construct has a loading value of more than 0.50. The correlation of all indicators has a high correlation to employee performance compared to the work environment and job satisfaction. This shows that all indicators of employee performance meet the requirements of discriminant validity.

Another method to assess discriminant validity is using the Fornell-Larcker criterion, which is done by comparing the Square Roots on the AVE with the latent variable correlation in the vertical axis (Fornell, 1981). Discriminant validity is said to be good if the square root of the AVE along the diagonal axis has a greater correlation between one construct and another.

Table 4. Fornell-Larcker Criterion

	Work Environment	Job Satisfaction	Employee Performance
Work Environment	0.824	0.641	0.727
Job Satisfaction	0.641	**0.873**	0.717
Employee Performance	0.727	0.717	**0.885**

Source: Data from WarpPLS 7.0

The square root of AVE along the diagonal axis has a greater correlation between one construct and another. Thus, it can be concluded that the construct has a good level of validity. Hence, it is expected to provide accuracy as well as unusualness in the research results.

Reliability Test

A reliability test was carried out to evaluate the outer model by looking at the reliability of the latent variable which is measured by two criteria of Cronbach alpha and composite reliability. A construct is declared to meet the reliability if the coefficient of Cronbach alpha is > 0.7 and the composite reliability value is > 0.7. This shows the precision, accuracy, and consistency of a measuring instrument (Neuman, in Hamdani 2013). Table 5 depicts the output of WarpPLS.

Table 5. Quality Criteria (Cronbach's Alpha dan Composite Reliability)

Variabel	Cronbach's Alpha	Composite Reliability	Standard Reliabel	Description
Work Environment	0.931	0.944	0.7	*Reliable*
Job Satisfaction	0.961	0.967	0.7	*Reliable*
Employee Performance	0.981	0.983	0.7	*Reliable*

Source: Data from WarpPLS 7.0

Following the SEM-PLS testing procedure, after the convergent validity using a factor loading was declared valid, convergent validity is evaluated in the form of Average Variance Extracted (AVE), composite reliability, and Cronbach's alpha. In Table 5, the independent variable of the work environment has the value of Cronbach's alpha of 0.931 and Composite Reliability of 0.944, which is greater than 0.70.

Thus, the reliability has been met. Job satisfaction as a mediating variable has a Cronbach's alpha value of 0.961 and Composite Reliability of 0.967, which is greater than 0.70. Thus the reliability has been met. Employee performance as the dependent variable has a Cronbach's alpha value of 0.981 and composite reliability of 0.983 which is greater than 0.70. Thus the reliability has been met.

Based on the analysis, the composite reliability of each construct has a value greater than 0.7. Thus, all constructs in the estimated model meet the discriminant validity requirements. The lowest composite reliability value in the construct of the work environment is 0.944. In Cronbach's alpha, the recommended value is above 0.6 and the table above shows that Cronbach's alpha value for all constructs is above 0.6. If a construct has met these criteria, it can be said that the construct is reliable or has consistency in the research instrument. In the construct of the work environment, the lowest value of Cronbach's alpha is 0.931

Evaluation of Inner Model

In this research, it is necessary to test the Fit model. Table 6 showsthe results of the Fit Model.

Table 6. Fit Model

No	Model	Fit Model	Standard Model	Description
1	APC	0,518 P<0.001	<0.005	Meet the requirement forModelFit
2	ARS	0.561P<0.001	<0.005	Meet the requirement for ModelFit
3	AARS	0.554 P<0.001	<0.005	Meet the requirement for ModelFit
4	AVIF	2.068	Accept <=5, ideal<=3.3	Ideal
5	AFVIF	2.401	Accept <=5, ideal<=3.3	Ideal
6	GoF	0.645	Small>=0.1 Medium>=0.25 Large>=0.36	Large
7	SPR	1.000	Accept>=0.7 Ideal=1	Ideal
8	RSCR	1.000	Accept>=0.9 Ideal=1	Ideal
9	SSR	1.000	Accept>=0.7	Acceptable
10	NLBCDR	1.000	Accept>=0.7	Acceptable

Source: Data from WarpPLS 7.0

According to Solihin (2013), the model is considered suitable if the p-value is <0.005. Based on Table 6, the values of APC, ARS, and AARS P were <0.001. It is smaller than <0.005 which means it is feasible to use. Furthermore, the value of AVIF and AFVIF is said to be good if <5 and ideally <3. In this study, the value of AVIF 2.068 and AFVIF 2.401 is close to <3 meaning that it is appropriate. Furthermore, the GoF value of 0.645 indicates that the value of Small is close to >0.1. then the value of SPR is 1,000 and RSCR is 1,000, which is said to be ideal. The SSR value of 1,000 and NLBCDR of 1,000, which are >0.7 is acceptable.

The next analysis is identifying the model's explanatory power or nomological validity, which can be assessed through the R-Square (R2) of the endogenous constructs. Regarding the effect of exogenous variables on endogenous variables, the higher the value of R-Square (R2) means the model is getting better at predicting the relationship of variables in the study.

Table 7. Inner Model R-Square (R2)

Model Structure	R Square
Job Satisfaction	0.432
Employee Performance	0.690

Source: Data from WarpPLS 7.0

Based on Table 7, the R Square of employee job satisfaction is 0.432. This means that 43.2% of job satisfaction is influenced by the work environment and employee performance. The remaining 56.8% is influenced by other variables not examined by this study.While the obtained R Square value of employee performance is 0.690. This means that 69% of employee performance is influenced by the work environment and the remaining 31% is influenced by other variables not examined by this study.

Hypothesis Testing

The hypotheses developed in this study were compiled based on theories and the results of previous studies. Based on the analysis using WarpPLS 7.0 application, path coefficients are generated for each relationship. Inner model or structural testing was carried out to see the relationship between the constructs.

Hypothesis testing is divided into three. They are path coefficient, p-value, and t-test. According to Hair (2019), if the path value is +1, there is a positive relationship, if the value is 0, there is no relationship, and if the value is -1, there is a negative relationship. Table 8 shows the Path Coefficients.

Tabel 8. Path Coefficients

	Work Environment	Job Satisfaction	Employee Performance
Work Environment			
Job Satisfaction	0.657		
Employee Performance	0.442	0.454	

Source: Data from WarpPLS 7.0

Based on Table 8, the path coefficients show the value of the work environment on the satisfaction of 0.657. It is close to 1. This means that there is a positive relationship between the work environment and job satisfaction. Furthermore, the value of the work environment on employee performance is 0.442, which means that it is close to 1. This means that there is a positive relationship between the work environment and employee performance. Lastly, the value of satisfaction with employee performance is 0.454, which is close to +1. Thus, there is a positive relationship between job satisfaction and employee performance.

The next analysis is the p-value. According to Solimun (2017), the p-value of < 0.10 shows a weak significance. The value of <0.05 means that it is significant, while the value of <0.01 shows high significance. Based on the data on the work environment, job satisfaction, and employee performance, the p-values are presented in Table 9.

Table 9. P-Value

	Work Environment	Job Satisfaction	Employee Performance
Work Environment			
Job Satisfaction	<0.001		
Employee Performance	<0.001	<0.001	

Source: Data from WarpPLS 7.0

Based on Table 9, the p-value of the work environment on job satisfaction is <0.001. The value is close to <0.01 This means that there is a high significance relationship between the work environment and job satisfaction. Furthermore, the p-value of the work environment on employee performance is <0.001, which means that it is close to <0.01. Hence, there is a highly significant relationship between the work environment and employee performance. The value of job satisfaction on employee performance is <0.001. The value is close to <0.01 and there is a high significance relationship between job satisfaction and employee performance.

The next test is t-count for the acceptance of the proposed hypothesis. If the t-count is higher than the t-table, the hypothesis is accepted. For the 95% confidence level (alpha 5%), the t-table for the two-tailed hypothesis is more than 1.96. Thus, this study is two-tailed by comparing the required statistical limits of 1.96 with the following criteria:

If tcount≥ ttable, Ho is accepted

This means that statistically, the data used to prove that the exogenous latent variable either partially or simultaneously affects the endogenous latent variable (Anderson, 2018).

Table 10. T -Statistic (Direct Effect)

	Work Environment	Job Satisfaction	Employee Performance
Work Environment			
Job Satisfaction	6,722		
Employee Performance	4.696	4.150	

Source: Data from WarpPLS 7.0

Based on Table 10, the results for each hypothesis are as follows:

Hypothesis 1

The path coefficient of the Work Environment on employee performance is 0.442.The t-count is 4.696 (> 1.96) and the p-value is 0.001 (<0.05). The positive path coefficients prove that the work environment has a positive and significant effect on employee performance at PT Pegadaian (Persero) Regional Office II Pekanbaru. Then, H0 is rejected and Ha is accepted. To conclude, Hypothesis 1is accepted.

Hypothesis 2

The path coefficient of the work environment on job satisfaction is 0.657.The t-count is 6.722 (>1.96) and the p-value is 0.001 (<0.05). The positive path coefficients prove that the work environment has a positive and significant effect on job satisfaction at PT Pegadaian (Persero) Regional Office II Pekanbaru. Thus, H0 is rejected and Ha is accepted. Hypothesis 2 is accepted.

Hypothesis 3

The path coefficient of job satisfaction on employee performance is 0.454, the t-count is 4.150 (>1.96) and the p-value is 0.001 (<0.05). The positive path coefficient values prove that job satisfaction has a positive and significant effect on employee performance at PT Pegadaian (Persero) Regional Office II Pekanbaru. H0 is rejected and Ha is accepted. In conclusion, Hypothesis 3 is accepted.

Hypothesis 4

The path coefficient of work environment on employee performance through job satisfaction is 0.299, and the p-value is 0.001 <0.05. Positive path coefficient values prove that the work environment has a positive and significant effect on employee performance through job satisfaction at PT Pegadaian (Persero) Regional Office II Pekanbaru.

Conclusion And Suggestion

Conclusion

Based on data analysis supported by theoretical studies, the following conclusions are drawn:

1. The working environment of PT Pegadaian (Persero) Regional Office II Pekanbaru is conducive. This can be seen from the dimensions of the physical work environment and non-physical work environment where the highest score lies in the physical work environment and the lowest score in the non-physical work environment.
2. Overall job satisfaction of employees at PT Pegadaian (Persero) Regional Office II Pekanbaru is considered good as indicated by the dimensions of the employment relationship, workplace challenges, and employment protection. The highest score lies in the dimensions of the employment relationship and workplace challenges and the lowest score lies in the dimensions of employment protection.
3. Overall, the employee performance at PT Pegadaian (Persero) Regional Office II Pekanbaru is considered good as seen from the eight dimensions of the quantity of work, quality of work, workplace knowledge, creativity, cooperation, reliability, initiative, and personal quality. the highest score lies in workplace knowledge and the lowest score lies in reliability.
4. The direct effect of the work environment shows a positive and significant impact on employee performance at PT Pegadaian (Persero) Regional Office II Pekanbaru with a t-count of 4.696 (>1.96) and a p-value of 0.001 (<0.05).
5. The direct effect of the work environment shows a positive and significant effect on job satisfaction at PT Pegadaian (Persero) Regional Office II Pekanbaru with a t-count of 6.722 (>1.96) and a p-value of 0.001 (<0.05).

6. The direct effect of job satisfaction shows a positive and significant impact on employee performance at PT Pegadaian (Persero) Regional Office II Pekanbaru with a t-count of 4.150 (>1.96) and a p-value of 0.001 (<0.05).
7. The indirect effect of the work environment shows a positive and significant impact on employee performance through job satisfaction with a p-value of 0.001 (< 0.05) at PT Pegadaian (Persero) Regional Office II Pekanbaru

Suggestion

Based on the research results, suggestions are made as a contribution to PT Pegadaian (Persero) Regional Office II Pekanbaru in the future.

- The non-physical work environment is at the lowest score indicating that companies should improve informal communication and care, particularly between superiors and subordinates as well as among fellow employees. Furthermore, companies must improve intense family relationships among employees, such as monthly gatherings intended at establishing intense non-physical relationships between employees and leaders.
- In the construct of employee performance,reliability is the weakest dimension. For this reason, PT Pegadaian (Persero) Regional Office II Pekanbaru is expected to provide clear directions so that employees are well-informed about their tasks. Not only that, the company must also provide training and development to employees who do not properly understand their work roles. It is hoped that the development training provided and under the field of work to be performed will result in employees who have improved work results over time.
- With a conducive work environment, employee performance will increase and job satisfaction will naturally increase. To be able to realize this, the company is expected to pay more attention to the work environment, especially the non-physical work environment through more intense family relationships.
- It is recommended for further researchers to conduct similar research with different variables to find out which variables have a greater influence on employee performance.

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Issue Article

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REFLECTION OF CONCEPT "WOMAN" IN THE WORKS OF CHARLOTTE BRONTE

***Abstract**: Charlotte Bronte, the feminist writer who struggled for democracy and dignity of women's contribution in governmental issues such as politics, economics, and other spheres. Charlotte Bronte attained renown owing to her novel Jane Eyre and adjusted in the rank of the outstanding English realistic writers. Jane Eyre is indisputably Charlotte Bronte's best literary production. One of the controversial problems raised in the novel is the position of woman in society. The heroine of the novel upholds that women should have equal rights with men.*

***Key words**: image of woman, feminism, society, equality, realism, literary world.*
***Language**: English*
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Introduction

The role of feminine gender in society and increasing their social activity has always been a controversial issue. Therefore, the image of a woman in the field of world literature plays significant role with its featured aspects. It should be perceived that the creation of the image of a woman indicates that she is a part of society.

Problems related to women and society has been explored in world literature particularly, in the novels of Jane Austen, Charles Dickens, and Mary Roberts [6; 7; 9.]. In world literature, the interest in the study of women in relation to society began in the 60s and 70s of the twentieth century. In the researches of such foreign literary critics as L.Ruvinsky, A.Razin, F.Brentano, M.Mayorov, L.Stolovich, E.Kukhareva, M.Zhukovsky, R.Powell, O.Drobnitsky, J.Defoe, K.Messenger studied until [3, p.16].

If we look at history, the works of writers and poets elicit tragic scenes about the role of *women* in society. We also witness the coverage of religious, social, racial, class aspects of the image of *women* and we can state as an example of this is Charlotte Bronte's Jane Eyre.

Charlotte Bronte brought about change in the style of fiction of the day, presenting an unconventional woman to be admired for her ability to overcome adversity. *Jane Eyre* is widely acclaimed as her masterpiece. Miserable life experiences offered the available materials for the prospective creation. The heroine *Jane Eyre* is an orphan, and is ill-treated at a young age. She strives for her life, and forms a tough character. She learns how to live from her childhood's environment. Also just for her growing experiences, it creates her strong personality, excellent ideal and wisdom. *Jane Eyre* is a special image out of ordinary. She makes a life by herself, and dares to show her inner voice. Under the pressure of life, she always maintains her self-respect by hard work, intelligence and tough individualism. Though she has little figure, which is reflected huge in soul. She pursues true love and is loyal and steadfast to her beloved man. Her kindness, intelligence, and independence attract the hero. At last she gets a perfect love.

The next novel named *Shirley* where melodrama and concurrences were avoided because of what her scope widened. Setting aside a steady but rather intensified feminism *Shirley* is the first regional novel in English literature, full of shrewdly portrayed local material such as Yorkshire characters, church and chapel, the cloth workers and machine breakers of her father's early manhood.

The last novel of Charlotte Bronte is *Vitette*, which states a realistic description of her experiences at a boarding school in Brussels. In *Villette* Charlotte featured again in the Brussels setting and the first-person narrative where *Shirley* was disregarded. Against that background she set the fiery heart that prevented of its intention, distinguished with the woman happily fulfilled in love.

Results and discussion

In today's literary criticism, the scope of creativity of writers is different which requires a special approach to each of them. Here it is important to study the creative activity of each writer and their art world. Charlotte Bronte's art world is also unique.

The world of art is the realization of the reality of the writer's imagination through artistic means, subject to the laws of literature.

When it comes to the concept of the art world, let us first focus on the meaning in which the word art is used and in what areas it is studied. Comments from dictionaries:

"*Бадиий – бадииятга, нафис саньатга оид, гўзал,ажойиб. 1. Воқеликни нафис саньат воситалари, усуллари, образлари орқали ифода этувчи, тасвирловчи. 2. Бадиийликка тегишли, мансуб: бадиий маҳорат, бадиий тасвир, бадиий тафаккур*[1]"[4].

The art world has parameters and categories such as real world - space, time, psychological and moral environment. But at the same time, the artistic world of the work is not a separate system, but the result of the relationship between the author's inner world and reality.

The art world is focused on a number of communicative objects as a unique integrated information system and a phenomenon of artistic culture. These include the author's text, reality, context, and the reader's opinion.

Integration of real life of the author and the period she lived in, which were embedded in the works indicate that Charlotte organized her literary world and possessed her status in literature.

As Charlotte remarked in one of her writings:

"If you knew my thoughts, the dreams that absorb me, and the fiery imagination that at times eats me up, and makes me feel society, as it is, wretchedly insipid, you would pity and I dare say despise me," Charlotte Bronte wrote to her friend Ellen Nussey in May, 1836 (Wise and Symington 1:139). As she presents is that of a Romantic artist, entirely occupied by the flame of her imagination which makes her feel isolated from society. She is an exile because her dreams elevate her above the prosaic people around her.

But we can observe the view of V.Wolf which states a failing grade to *Jane Eyre* as: «"Wuthering Heights" is a more difficult book to understand than "Jane Eyre", because Emily was a greater poet than Charlotte» [7]. R.Chase contrasts heroes of *Wuthering Heights* of Emily Bronte and *Jane Eyre* of Charlotte Bronte that mentions about similarity of Hitchcliff and Rochester while studying their poetics [2, p. 11 – 16].

It is worth mentioning the view of other writers such as Susan Wolfson who notices that "in English Romanticism . . . the play of interpretive strategies emerges as a primary subject – a 'principle of action' in itself" and about the poems "dramatizes the uncertainties of interpretation" [1, p.78].

Literary world of Bronte is revealed by the reading list she made up for her friend Ellen Nussey in a letter dated July 4, 1837 [9]. Her discussion of writers indicates that she did not perceive women to be part of the great literary tradition which concentrated on poets and was exclusively male.

Helene Moglen notes about Romantic roots which were reflected in the well-known book *Jane Eyre* of Charlotte Bronte [8]. As conceived of Irene Tayler in her study of Charlotte Bronte, Moglen restricts Bronte's Romanticism to the Byronic strain, an influence which is opposed to the novelist's feminist independence. The analysis of Tayler indicates Bronte's father as the center of her male ponder by focusing on Charlotte's dilemma of feeling constrained to choose between active "doing" and passive "being", stemming from her dual desire to emulate her father and be loved by him, which decline the creative activity.

[1] See Translation: Art - art, fine art, beautiful, wonderful. 1. Expressing and describing reality through the means, methods, images of fine art. 2. Belonging to art: belonging to artistic skill, artistic image, artistic thinking.

Conclusion

The analyses of Charlotte Bronte' works indicate that her works represent her reality and soul which undervalued in the society of her presence.

Bronte contends that writers produce their best work under an influence which becomes their master and which will have its own way canceling their consideration. According to Bronte's view, the creative imagination adopts the composition, obscuring the authorial self and, by extension the author's gendered identity. Therefore, she maintains that she cannot think of what is appropriate for her to write as a woman when she composes, for she is overtaken by her imaginative spirit, which exceeds her gender. In her point of view observing control of composition to the influence has positive effect. Charlotte does not consume that it should be countered.

The representation of the individualistic questing spirit and its pursuit of self-definition and transcendence was another reason of Romanticism that Bronte depicted in her works. Bronte ultimately succeeded in breathing the Romantic spirit into her novels, though she had to first surmount the obstacles she faced as a woman writer.

Accomplished Charlotte's writings were highly lauded by such authors as William Makepeace Thackeray, and has since inspired numerous adaptations for television and film, and numerous other author's works including Jean Rhys' 'prequel' *Wide Sargasso Sea*.

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Article

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ANALYSIS OF THE RELIABILITY OF THE TECHNOLOGICAL TOPOLOGY OF THE PROCESS OF ACIDIC LIACHNG OF HYDROMETALLURGICAL PRODUCTION OF ZINC

***Abstract**: On the basis of the topological model of the process in the form of a material flow graph and its structural characteristics, an analysis of the reliability of the production and technological scheme of the acid leaching process in the production of zinc has been carried out, elements have been identified, ensuring the reliability of which is a primary task in operation.*

***Key words**: acid leaching, topological diagram, stream graph, zinc production, set of graph articulation, reliability of the topological diagram.*

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АНАЛИЗ НАДЕЖНОСТИ ТЕХНОЛОГИЧЕСКОЙ ТОПОЛОГИИ ПРОЦЕССА КИСЛОГО ВЫЩЕЛАЧИВАНИЯ ГИДРОМЕТАЛЛУРГИЧЕСОГО ПРОИЗВОДСТВА ЦИНКА

***Аннотация**: На основе топологической модели процесса в виде материального потокового графа и его структурных характеристик выполнен анализ надежности производственно-технологической схемы процесса кислого выщелачивания в производстве цинка, выделены элементы, обеспечение надежности которых является первоочередной задачей при эксплуатации.*

***Ключевые слова**: кислое выщелачивание, топологическая схема, потоковый граф, производство цинка, множество сочленения графа, надежность топологической схемы.*

Введение

Выщелачивание продуктов обжига – основной передел цинкового производства, в значительной мере определяющий его технико-экономические показатели [1, с.9]. Цель кислого выщелачивания - обеспечением более полного излечения цинка из обожженного продукта и предотвращением обратного перехода в раствор большого количества осажденных из него примесей, осложняющих последующие процессы гидролитической очистки и отстаивания пульпы в нейтральном цикле [2, с.104]. Сгущенную пульпу нейтральных сгустителей подают в аппараты кислой ветви. Выщелачивание производится отработанным электролитом в последовательно соединенных пачуках. Из последнего аппарата пульпу откачивают в гидроциклон, где осуществляется классификация пульпы.

Верхний сив гидроциклона направляют в кислые сгустители, а песковая фракция поступает на доизмельчение и довыщелачивание в галечной мельнице, куда подается отработанный электролит. В сгустителях пульпе отстаивают до ж:т = 3-2:1.

Верхний слив сгустителей кислой ветви с содержанием кислоты направляют на смыв огарка. Нижний слив кислых сгустителей перекачивают в приемный бак фильтровально-сушильного отделения [3, с.51].

Технологической системе процесса кислого выщелачивания можно поставить в соответствие потоковый граф, являющийся некоторой топологической моделью одного типа физических потоков данной системы [2, с.23].

В общем случае потоковый граф $G = G(X) = (X, U)$ с множеством вершин X и множеством дуг U, содержит совокупность k промежуточных вершин, соответствующих элементам системы, n источников, m стоков, и e дуг, которые отвечают одного типа обобщенным материальным потокам системы [4, с. 128].

Вершины материального потокового графа соответствуют аппаратам технологической схемы, трансформирующим общие массовые расходы физических потоков, источникам и стокам физических потоков. Дуги данного графа отвечают обобщенным материальным потокам.

Топологическая модель процесса кислого выщелачивания в виде материального потокового графа по общему массовому расходу физических потоков представлена на рис. 1.

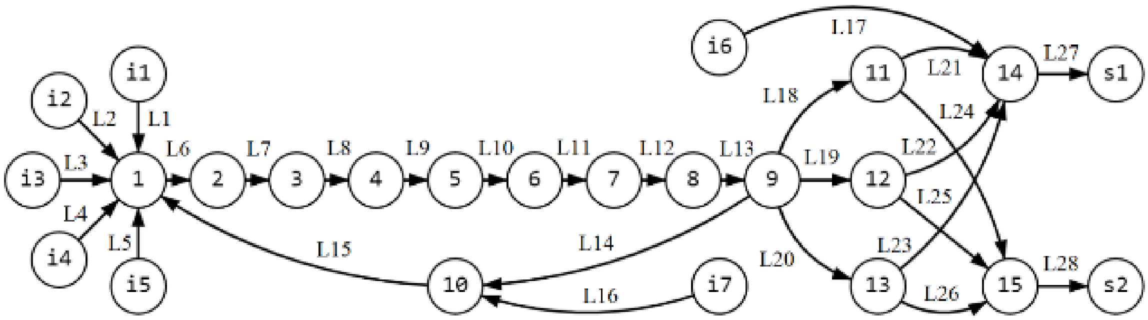

Рисунок 1 – Материальный потоковый граф процесса кислого выщелачивания.

Порядок построения материального потокового графа поясняет таблица источников и стоков технологической системы кислого выщелачивания (таблица 1), таблица соответствия элементов технологической системы кислого выщелачивания вершинам потокового графа (таблица 2), таблица соответствия одного типа физических потоков технологической системы кислого выщелачивания дугам ее потокового графа (таблица 3).

Таблица 1. Таблица источников и стоков технологической системы кислого выщелачивания

Элемент технологической схемы процесса кислого выщелачивания	Вершина материального потокового графа	Элемент технологической схемы процесса кислого выщелачивания	Вершина материального потокового графа
Источник растворов цеха пылей и окислов	i1	Источник отработанного электролита	i6
Источник нижнего слива нейтральных сгустителей	i2	Источник пара	i7
Источник отработанного электролита	i3	Сборный бак верхнего слива кислых сгустителей	s1
Источник верхнего слива кислых конусов	i4	Сборный бак нижнего слива кислых сгустителей	s2
Источник фильтрата	i5		

Таблица 2. Таблица соответствия элементов технологической системы кислого выщелачивания вершинам потокового графа

Элемент технологической схемы процесса кислого выщелачивания	Вершина материального потокового графа	Элемент технологической схемы процесса кислого выщелачивания	Вершина материального потокового графа
Окислительный пачук	1	Кислый сгуститель	11-13
Кислый пачук	2-8	Сборный бак верхнего слива кислых сгустителей	14
Гидроциклон	9	Сборный бак нижнего слива кислых сгустителей	15
Мельница	10		

Таблица 3. Таблица соответствия одного типа физических потоков технологической системы кислого выщелачивания дугам потокового графа

Физический поток технологической системы кислого выщелачивания	Дуга материального потокового графа	Физический поток технологической системы кислого выщелачивания	Дуга материального потокового графа
Растворы цеха пылей и окислов	L1	Пульпа	L6 – L16, L18
Нижний слив нейтральных сгустителей	L2	Нижний слив гидроциклона	L17
Отработанный электролит	L3, L19	Пар	L20
Верхний слив кислых конусов	L4	Верхний слив кислых сгустителей	L21, L22, L23, L27
Фильтрат	L5	Нижний слив кислых сгустителей	L24, L25, L26, L28

Надежность технологической топологии системы кислого выщелачивания может быть оценена на основе полученного материального потокового графа и его структурных характеристик, к числу которых относятся связность графа и множество сочленения [5, с.193].

Связность графа характеризует возможность того, что две произвольно выбранные вершины графа соединяются цепью [6, стр. 131]. Алгоритм определения вершин потокового графа, принадлежащих множеству сочленения, включает следующую последовательность операций [6, стр. 214]:

- определение центров и периферийных точек графа;
- удаление из материального потокового графа вершин, соответствующих периферийным точкам;
- выбор оптимального множества сочленений материального потокового графа.

С целью определения центров и периферийных точек графа вводят параметр $d(x,y)$, представляющий собой отклонение вершины x от вершины y, равное длине кратчайшее пути из x в y и отвечающая условиям [6, с.431]:

$$d(x,x) = 0;\ d(x,y) + d(y,z) \geq d(x,z).$$

Величина $k(x) = \max\{d(x,y)\}$ является отклонением вершины x. Вершина, обладающая наименьшим отклонением, является центром графа и может принадлежать множеству его сочленений [8, с.132]. Вершина, обладающая наибольшим отклонением, представляет собой периферийную точку графа и отвечает элементу технологической схемы, отказ которого не приводит к нарушению работоспособности исследуемой системы [6, с.256].

Наличие центра в графе можно определить по формуле [7, с.194]:

$$r = \frac{lg(nm-n+1)}{\lg(m)} - 1, \qquad (1)$$

где r – радиус графа, n – число вершин графа, m – число ветвей графа.

Материальный потоковый граф имеет центр, при условии, что $r < \infty$.

Определение оптимального множества сочленения материального потокового графа осуществляют в соответствии с критерием [7, с.241]:

$$\theta = \sum_{S_i \in N} \frac{\rho_i}{k(i)}, \qquad (2)$$

где ρ_i – степень вершины S_i, относящейся к множеству сочленения N; $k(i)$ – отклонение вершины S_i, принадлежащей множеству сочленения N.

После удаления из исходного графа вершин-источников $i_1 - i_7$ и вершин-стоков s_1 и s_2 граф новой структуры состоит из 15 вершин и 19 дуг, отвечающих технологическим связям элементов процесса кислого выщелачивания.

По формуле (1) устанавливается наличие центра в материальном потоковом графе:

$$r = \frac{lg(15 \cdot 19 - 19 + 1)}{\lg(15)} - 1 = 1{,}06.$$

Справедливость того, что $r < \infty$ подтверждает, что граф обладает центром. Периферийными вершинами являются 3-5, 11-15. Они имеют наибольшие отклонения и соответствуют элементам, отказ которых не приводит к отказу технологической системы в целом. Вычисленные отклонения вершин материального потокового графа позволяют определить вершину (9) как оптимальное множество сочленений [8, с.147; 9 с.15; 10 с.91].

Максимум целевой функции (2) составляет:

$$\theta = \frac{\rho_9}{k(9)} = \frac{5}{8} = 0{,}625.$$

Множество сочленений материального потокового графа определяется одним элементом и соответствует гидроциклону, отказ которого может привести к нарушению работоспособности и технологического режима исследуемой технологической системы. Это означает, что в ходе эксплуатации оборудования процесса кислого выщелачивания, следует обеспечивать надежность указанного элемента.

Заключение

Применение топологической модели процесса позволяет выделить комплекс технологических аппаратов, отказ которых не ведет к нарушению работоспособности, а также совокупность единиц производственного оборудования, обеспечение надежности которых является первоочередной задачей при эксплуатации.

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Issue Article

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TAX BUDGET AND ITS CALCULATION PROBLEMS IN THE ECONOMY

Abstract: *This article is a scientific and theoretical study of the tax burden in the economy and the problems of its calculation, in which the need to calculate the tax burden in the national economy, the distribution of the tax burden in the economy, the distribution of the tax burden among taxpayers. Also, the calculation directions of the tax burden are studied on legal entities and individuals.*

Key words: *tax system, tax burden, gross domestic product, taxpayers.*

Language: *English*

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Introduction

Among the problems of the tax system, the problem of the tax burden is central. It reflects the final assessment of the tax policy and system of a particular state, is an outcome indicator of the country's tax reform and plays an important role in the economy. A rational tax system that meets the needs of the state for financial resources does not negatively affect the production and entrepreneurial activities of taxpayers, but rather has a positive impact on finding effective ways of doing business.

Urgency

Therefore, the taxpayer’s tax burden indicator will be sufficient to assess the quality of the country’s tax system. The tax burden represents a set of indicators of the country's tax system. A certain percentage of the income of individual business entities or other taxpayers is paid to the state in the form of taxes or fees.

Research methodology

A.Smith, who lived and worked in the XVIII century, in his book "Study of the nature of peoples and the causes of enrichment" paid special attention to the relationship between the level of the tax burden and the state budget. “The state benefits more from reducing the tax burden than from imposing hard-to-collect taxes. The remaining funds may remain as additional income to be paid to the treasury in the future. At the same time, the additional costs of the state related to penalties and mandatory payments will be reduced, and taxpayers will be able to make these payments more easily [1].

For more than two hundred years, financial science has been studying the impact of taxes on the income of the population and the economy. So far, scientists are trying to determine the basicity of the level of taxation and the issue of determining the indicator of the tax burden.

In the XVIII-XIX centuries, foreign scholars analyzed the proportion between the budget and national income, the size of taxes on businesses and citizens. The tax burden and its impact on the economy were first mentioned in the 18th century. In this regard, F. Justi studied the tax burden at the macro level at the link between the budget and the national income of the state. At the same time, he argued that the country's budget should be 1/6 of national income.

K. Gok justified the proportions between state budget expenditures and revenues and national income. He believed that a tax burden that was real for a particular country, justified at different stages of economic development, could not be a single, universal and at the same time optimal indicator [3].

Based on the above considerations, we can say that it is not possible to accurately and optimally determine the tax burden indicator for the same country or taxpayers, it can only be determined empirically. Because there is no other way to determine. There is no single methodology for specifying the tax burden for a particular country.

The amount of reparations after World War I necessitated the development of precise methods of measuring the weight of the tax burden to pay off Allied debts. The purpose of these methods was to provide a basis for further study of the weight of the tax burden on the economy as a whole, at the intersections of particular social groups of the population, and within production sectors.

Theoretical approches

The interest in the tax burden in the economy, both theoretically and practically, is not in vain. We can justify the necessity and importance of calculating the tax burden for the country as follows:

First, the calculation and determination of the tax burden is necessary for each state to develop its tax policy. By abolishing old taxes and introducing new taxes, setting tax rates and tax incentives, the state will not allow pressure on the economy. From a macroeconomic point of view, the state is used to determine the revenue side of the budget, the tax base and the impact of taxes on the economy through the tax burden.

Second, the tax burden indicator is needed for a comparative analysis of the state with the tax burden and tax indicators of other different states. It is necessary for the location of production in the country, the distribution of investment and the movement of capital. This data is also used for comparative analysis both within the country and across regions.

Analytical part

A gradual change in taxation will make it possible to determine an important factor - the tax burden for different periods.

The tax burden is an overall indicator of the role that taxes play in society. In many countries, the tax burden at the macroeconomic level is calculated relative to the total amount of taxes and levies relative to GDP [5].

The role of taxes in the life of the state and society depends on geographical and climatic factors. Because the factors affect the development of the national economy and the state has the ability to differentiate and compare the economy.

As a result, the state determines the tax burden and returns these funds to taxpayers through various services. We can see this more clearly in the diagram below.

Paying attention to the basics of taxation, elaborating it carefully, correctly determining the terms and amount of payment leads to the establishment of a fair tax burden.

Fourth, the indicators of the tax burden are used to determine the economic activity of economic entities. It is this indicator that determines the direction of investment in production. The tax burden is a great help in addressing issues such as the development and reduction of production, regulation of the economy, solving production problems by industry, creating new jobs, normalization of consumption and savings processes of economic entities, investment orientation.

In theory, the determination of the tax burden in the economy is carried out in two directions. That is, it is defined at the macro and micro levels.

At the macro level, we can divide the tax burden into two, that is, the tax burden on the whole economy and the population as a whole. This figure is general and is defined as the share of taxes and fees in relation to GDP, as mentioned above. Macro-level refers to the tax system of the whole country, in other words, it means the state's intervention in the economy, its tax pressure. In this case, the tax burden is distributed to enterprises, industries and sectors. Also, the macro-level tax burden on legal entities and individuals is insignificant. Because they pay taxes and fees to the budget and extra-budgetary funds from their own income.

The tax burden on the general population is calculated as the ratio of all taxes collected by the population to GDP. The world experience shows the tax burden on the population again at the micro and macro levels. The micro level is the tax payment of one person, the macro level is the tax payment of the general population. It is important that each family calculates the tax burden as a tax subject. The tax burden on the population represents all taxes levied per capita.

In the study, we also found it necessary to dwell on the tax burden on the population of the country. This is because the tax burden in the country is paid by two entities, namely a legal entity and an individual. The experience of developed countries shows that the bulk of the tax burden falls on individuals.

When analyzing the structure of state budget revenues in the developed countries of the world, the main taxes in the GDP, ie income taxes, play a key role. The share of indirect taxes is low. In the Republic of Uzbekistan, we can see the opposite. This is because in the context of the transition to market relations, indirect taxes perform a more fiscal function, and this is necessary for the state. This view is also valid from the point of view of manufacturers. However, the bulk of the tax burden is falling on the population. Because the final consumers of products (works, services) are individuals. The real payer of indirect taxes is also a consumer of goods (works, services). From this we can say that individuals also pay taxes and indirect taxes that they pay. There are also some types of taxes paid by legal entities that are included in the cost of the product. Taxes included in the cost of production are also borne by individuals. Therefore, these indicators should be taken into account when calculating the tax burden on individuals.

When we take the sum of indirect taxes, taxes paid by individuals, property and land taxes included by legal entities in products (works, services) from the indicators of state budget revenues, we can see the total tax burden on individuals or how much they form budget revenues.

If we analyze the tax burden on the population more precisely, if we divide all the taxes paid by individuals by the average annual number of the population, we get the amount of tax per capita. This determines the average tax amount per person. In the economic literature, GDP per capita is an indicator. Taxes allocate a certain part of GDP to the budget. So, there is an integral connection between these two economic categories.

The assessment of the tax burden on the population should be based on the sum of all taxes paid by the population. The complexity of the calculation based on the above formula is that it is difficult to determine the amount of tax paid directly and indirectly by the population. In this sense, the population is the main consumer and therefore bears the main tax burden.

The tax burden on the employee (wage earner) consists of income tax. This indicator is used to analyze the income tax burden in different countries. This figure is higher in developed countries. This tax alone accounts for more than 45 percent of the U.S. federal budget.

One of the problems in determining the tax burden for legal entities is that while some economists calculate all the taxes and levies paid by a legal entity in relation to value added, others calculate it in relation to the net income from product sales. No definite decision has yet been made on this.

The tax burden on legal entities is determined by their income. According to him, the tax burden is calculated based on sales of products. Based on this indicator, income tax is determined. Also, sales profits are not always a source of taxation. Therefore, some taxes of the legal entity will not have an impact on this indicator.

Each type of tax has its own evaluation criteria, regardless of its source. The most important thing is the profit of the enterprise. That is, taxes and fees paid by a legal entity are defined as the effect on the profit margin or their share. In addition, the payments of legal entities are determined in relation to its net profit.

Many economic literatures argue that the rate of profit or net profit cannot accurately reflect the tax burden of legal entities. We do not think that the above formula accurately represents the tax burden of a legal entity. The above formula determines how taxes affect the legal entity's profit and net profit ratios. This is just one aspect of the formulas that express the tax burden on a legal entity and the impact of taxes on it.

Another way to determine the tax burden on businesses is to set it against value added. Value added is the value created by a legal entity over a period of time. That is, a legal entity buys a commodity or raw material at a certain price and adds value to it during its processing. This is a value created during this period. This figure is the source of all taxes. If a legal entity does not create value added, it is not considered a taxpayer (other than property and land taxes) and cannot create a taxable source. The value added tax indicator, calculated on the basis of value added, more broadly reflects the tax burden of a legal entity.

Value added includes depreciation allowances, wages, social security contributions, curves and other taxes, as well as profits. Therefore, the calculation of the tax burden under this method is more complicated.

Experience in applying these methods of calculating the tax burden shows that none of them can be the most optimal option for calculating the tax burden. Only a cross-comparison of the various indicators is close to determining the relative tax burden.

At the same time, tax theory recommends that direct taxes be between the buyer and the consumer, regardless of the nature of the product. Therefore, it is not possible to determine a universal tax burden for businesses.

Each of the methods of calculating the tax burden in today's practice has its advantages and disadvantages. Therefore, none of them can guarantee the establishment of an absolute tax burden in sectors of the economy.

Also, the sectors of the economy have their own production characteristics, such as labor productivity, material base, capital turnover, product seasonality. These factors also do not allow the determination of a single universal tax burden.

World experience shows that as a result of increasing the tax burden on taxpayers (increasing the tax burden and raising tax rates, removing tax benefits, etc.), tax revenues initially increase, and after reaching a maximum, these figures begin to decline. As a result, budget revenues are declining and a certain proportion of taxpayers are in decline or production is declining, while the rest of the taxpayers are illegally evading taxes. The result is a shadow economy.

Nowadays, when making changes to the tax legislation, many states are on the way to removing benefits and deductions, trying to introduce new fees. However, this leads to a sharp decline in income and taxable capital.

The world experience of taxation shows that taking more taxpayers 'income as a tax leads to a decrease in investment in the economy. If the tax rate reaches 40 percent of income, it will have a negative impact on business development and production expansion.

In other words, an effective tax system should meet the needs of the state by receiving 1/3 of the revenues. At the same time, the exact indicator of the tax burden is manifested differently in different countries at the macro and micro levels. First of all, we are talking about the obligations between the state and taxpayers. The level of the tax burden depends on the provision of medical, educational, communal and other services to the population of the state, budget expenditures. In Sweden, for example, the population donates 50 percent of their income to the state treasury, and this does not negatively affect production efficiency. This is not surprising, as the state has been extensively protecting taxpayers economically and socially.

After all, the tax burden should not harm the activities of a particular taxpayer. Therefore, the state should use averages in determining the tax burden.

Of course, each country determines the tax burden based on its different national characteristics and production. There are tens of thousands of operating enterprises with different characteristics in each country. Each of them has different options in paying taxes. Therefore, in the comparative analysis of the tax burden at the state level and in the calculation of the tax burden at the macro level, it is expedient to calculate the ratio of taxes and fees to GDP.

Conclusion

In conclusion, tax burden indicators are a key factor in the development of tax, investment and social policy of the state. Including:

- The tax burden on the country's economy is the result of state tax policy and represents a qualitative characteristic of any tax system. At the same time, the level of taxes levied is determined, on the one hand, by the efficiency of social production, and, on the other hand, by the amount of the state's need for financial resources. Therefore, reducing the weight of the tax burden is primarily related to reducing government spending;
- The state in the development of its social policy is based on the indicator of the tax burden, which serves as the main source for it;
- The results of the study show that there is no single methodology for calculating the tax burden on businesses. It should be based on several methods to calculate and analyze it.

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Issue Article

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MODERN APPROACHES TO IMPROVE THE PRIVATE HOUSING MANAGEMENT SYSTEM IN UZBEKISTAN: NATIONAL AND FOREIGN EXPERIENCES

***Abstract**: In this article, the housing stock was studied as a complex and specific object of management, based on their condition and the individual characteristics of each housing, requiring different management methods. Also, proposals have been developed for different approaches that are required in the management of such buildings, taking into account their specifics.*

***Key words**: housing stock, management, management methods, economic efficiency, individual characteristics, motivation, evaluation.*

***Language**: English*

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Introduction

The housing stock is a kind of complex and specific management object, and based on their condition and individual characteristics of each housing, it requires different management methods. That is, buildings have various design and planning characteristics and the degree of wear. When managing such buildings based on their specific features, different approaches are required. At the same time, the relations between homeowners, their agreement on overall housing management, and the amount of financial investments required for management also occupy an important place in housing management.

Urgency

Scientific researches in the field of housing management, conducted in different countries of the world, focuse on the formation of the organizational basis of management, the definition of the activities of enterprises in this field and the expansion of the range of services that they provide. In recent years, the focus has been on improving the quality and effectiveness of these activities, including the decentralization of the housing management system and the reduction of government participation in management. Therefore, the use of modern approaches to housing management and private sector services management activities are important.

Research methodology

Scientific works on improving the housing management system have been carried out by many foreign scholars, like Ostrom E. [1], Nahrath S. [2], Baudoui R. [3], Talbot D. [4], Bojórquez-Tapia L. [5], Pazhani K., Jeyaraj R. [6], Paris D. [7], Seys F.-O. [8]. For some aspects of the functioning and the possibilities of organizing effective management system among researchers of the CIS countries, scientific researches have been carried out by such scientists as Kirsanov S. [9], Lomova M. [10], Stepaev K. [11], Gareev I.F. [12], Mukhametova N. [13], Matveeva E. [14], Abipova, G. [15], Proskurnova, K. [16], Dudin M., Tolmachev O. [17], Prokofiev, K., Moiseev, V., Egorova, Yu. [18], Lovkova E., Kornev A. [19], Krygina A., Krygina N. [20]. Scientists and economists of our country have studied some aspects of the housing and communal services management system, as of Khasanov T. [21], Nurimbetov R., Sultanov A. [22], Toshmatov Sh. [23], Davletov I. [24], Yodgarov V., Butunov D. [25], Temirov J. [26], Zikriyoev A. [27]. Also, in the analytical works of practitioners working in this field Abdullaev N., Vishnevskaya N.M [28], and Nabiev A.Kh., Tantybaeva K.A. [29] can be found various recommendations and suggestions for managing a private housing fund in our country.

These works mainly studied the impact of housing management on the socio-economic status of the population and on the level of urbanization of the country. However, the effectiveness and advanced methods of housing management have not been identified, which, in turn, served as the basis for determining the direction of this research work.

Theoretical approches

In Uzbekistan, after the privatization of the state housing stock, the current system of their management is organized by state authorities. And this led to the opinion of the owners that the Private Homeowners' Partnership is not really the organization that protects the interests of the owners, but the renamed former "Housing and Maintenance Office" *(Жилищно-эксплуатационная контора)*. As a result, the bulk of the population is still poorly aware of their rights and obligations regarding their common property in the housing stock, does not fully realize their place in managing the partnership and their role in improving the management quality. And from this position, today improving the system of effective management of private housing stock in Uzbekistan is considered one of the important tasks.

In this regard, in the Strategy of Action for Five Priority Directions of the Development of the Republic of Uzbekistan in 2017-2021, the urgent tasks include "increasing the level of provision of the population with municipal services". Successful completion of these tasks in our country requires improving the system of effective management of private housing stock.

Analytical part

Today, the majority (99,3%) of the housing stock is at the disposal of the population, and housing management is actually carried out directly by homeowners.

In the years of independence, a number of normative and legal acts have been adopted in the Republic of Uzbekistan aimed at accelerating the reform of the communal sphere, preventing unjustified tariff increases. His sense-forming core was the transfer of ownership of housing to citizens of the country. An analysis of the legal framework for managing the private housing stock of Uzbekistan shows that a total of 19 regulatory-legal acts have been adopted.

According to the Constitution of the Republic of Uzbekistan, the state guarantees legal protection of all forms of property, including private property. Based on these norms, a number of legislative acts have been adopted in the republic that determine the legal basis for housing, urban and rural development. The most important legal norms regulating the development of housing in urban and rural areas are the Housing and Urban Development Codes, the Laws of the Republic of Uzbekistan "On Mortgage", "On Private Homeowners' Partnership", "On Privatization of the State Housing Fund". The Housing Code of the Republic of Uzbekistan regulates the relations of citizens, legal entities, public authorities and local authorities on the issues of the origin, implementation, change and termination of the right of ownership, the right to own and use living quarters, register the housing fund, secure, maintain and repair the housing fund, control over observance of housing rights of citizens and targeted use of housing fund, regulation of relations related to the construction of residentials, conversion and redevelopment of residential premises, the use of technical equipment, software utilities.

At the same time, the international experience in managing the housing stock was studied, a comparative analysis was conducted with the existing system in our country. According to the results of studying the experience of some developed countries of the world, it is established that in most countries public services, including integrated property management, its maintenance and operation are carried out by non-profit organizations.

Table 1. Housing Management System in Foreign Countries

№	Country	Housing Management System	Kind of activity
1.	USA	Planning Unit Developments, Condominium Association	Non-profit
2.	Canada	Housing Cooperatives	Non-profit
3.	France	Syndicate	Non-profit
4.	Finland	Apartment joint-stock companies	Non-profit
5.	Ukraine	Owners Association	Non-profit
6.	Russia	Homeowners Partnership and Housing Cooperatives	Non-profit

As the data in the table show, the non-profit management of private housing in developed countries indicates that in our country this system was combined with foreign experience. In Uzbekistan, the joint management of the private housing fund, maintenance and repair of the housing fund is carried out by a voluntary Private Homeowners' Partnership (PHP) and Managing organizations. Private Homeowners' Partnership is an association of private owners of residential premises in one or several compactly located apartment buildings, united by a common land plot with elements of improvement, a non-profit organization created on the basis of a partnership of private homeowners.

The effectiveness of the service sector is an important feature of a market economy, and is inextricably linked with the quality of services and the purpose of the organization. At the same time, quality service, first of all, requires the formation of an effective human resources management system.

This article also examined the foreign experience of organizing a system of training qualified personnel to ensure the effective functioning of this sphere. So, in Germany, the head of an enterprise in this industry should be an economist, engineer, lawyer, or a person with social work skills, with higher education. In addition, he should possess such personal qualities as communication, courtesy, ability to negotiate and resolve conflicts. In Hungary, according to the Law on Home Ownership Associations, condominium managers can only be persons with special vocational training. Since 1999, in Hungary, courses in the specialties "manager of the condominium" and "manager of the property" have been held under a special state license.

Until the 1990s, various mechanisms of management were used in our country to manage the housing stock, enterprises of various forms of ownership were created, and their performance was tested. Including, if in 1993-1999 state rental enterprises were engaged in this activity, then after the adoption of the Law of the Republic of Uzbekistan No. 761-I "On Homeowners" on April 15, 1999, the first homeowners associations appeared. As of June 2000, 360 homeowners' associations were created, which were entrusted with managing 19,4% of multi-storey buildings, and by the end of 2002 their number reached 1388, 98,5% of multi-storey buildings were covered by the homeowners management [21].

The results of the experiments showed that the Private Homeowners' Partnership is an effective and optimal form of operation and maintenance of a private housing stock. At present, there are 4787 PHP and 352 managing companies (January, 2019) operating more than 33300 private residential buildings in Uzbekistan.

Table 2. The number of PHP and their managing houses [30]

The number of PHP / Years	2006	2010	2017
The number of PHP	2188	4751	4787
The number of their managing houses	26548	28792	more than 33300

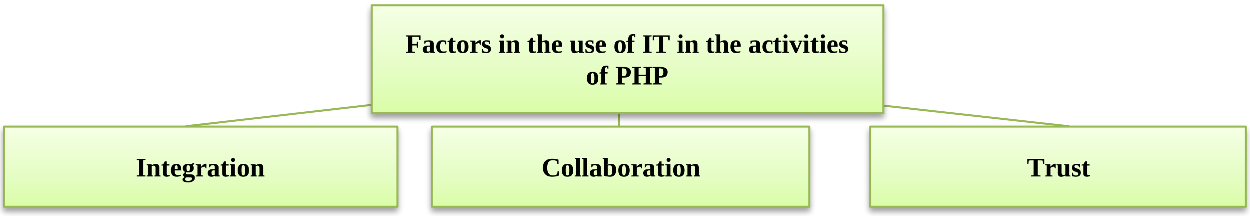
It should be noted that in Uzbekistan, homeowners choose the housing management form themselves, meanwhile, the form of management is largely determined by the volume of housing stock. In addition, in our country, the management of a private housing fund, as in other countries of the world, is carried out on the basis of the "single family" principle. The housing fund management form is determined by the homeowners themselves, enshrined in law, they are required to choose only one of the above forms.

In cases where multi-unit houses are managed by homeowners, contracts for the maintenance, maintenance and repair of common property are concluded on the basis of a decision of the general meeting of homeowners. At the same time, in relations with third parties, one or more persons authorized by the general meeting appear on behalf of the homeowners. The management of the apartment building where the PHP has been created is carried out in accordance with the Law of the Republic of Uzbekistan "On Private Homeowners' Partnerships", meanwhile, the management of the apartment building where the PHP is not functioning is carried out by the manager (executive director) or the Managing Organization on the basis of an agreement concluded by decision general meeting of homeowners.

Another important area of increasing the effectiveness of the operation of PHP is the widespread introduction of information technologies (IT) in their activities. The use of IT in management or the introduction of an automated management system leads to the improvement of not only the public administration system, but also the management system of industry structures. This is evidenced by the fact that currently the widespread use of modern IT in various service enterprises ensures high quality and productivity.

The widespread use by service organizations in their relations and in relations with the population and state authorities of modern information and communication technologies increases the quality and effectiveness of their activities. So, the improvement of their activities can be achieved using the following factors.

Figure 3. The importance of the use of IT in the activities of the PHP



1. Integration. When the homeowners' associations conduct their activities on the basis of IT, this leads to the integration of the basic orders and functions of the "owner - partnership (or managing organization) - partner".

2. Collaboration. As integration between these organizations and between organizations and owners (the population), as well as with other partners, cooperation intensifies.

3. Trust. Effective cooperation, an open system of mutual data exchange ensure the formation of trusting relationships between the population, partnerships and other partner organizations.

In our opinion, regardless of the form of management, the formation of an adequate and effective management system constitutes a solid foundation for housing management. At the same time, the choice of the form of housing management, based on the fact that each object has its own specific features, requires an individual approach, therefore programs and development plans should be developed individually for each management object. And this, in turn, requires the managers of the housing stock with great knowledge and experience. In particular, within the limits of their authority, they have to not only implement engineering solutions, but also to establish close interaction with the clients who provide services, to form a careful and cautious attitude towards their property by the homeowners so that their work will last as long as possible term. This is a very important point, since it determines their place in the market of services.

In addition, it is recommended to develop specific mechanisms for implementing the norms of housing legislation, including instructions for ensuring the direct participation of owners in management. They should cover issues from convening a general meeting of owners to hearing the annual report of the PHP. That is, mutual trust and partnerships should be formed between owners and managers. It should be noted that if owners will more actively exercise their rights and participate in management, then they can achieve not only better management of their common property, but also savings in management, which in turn will help to improve social living conditions. Among the owners it is necessary to regularly conduct explanatory work on the organizational and legal status of partnerships, the main areas of activity and the need to establish cooperation between the owners and the PHP. At present, it is also important to strengthen the system of training qualified personnel in order to ensure better management of the housing stock; for this, it is also advisable to form an effective state system of training personnel.

As noted above, in developed countries, housing management is seen as a separate type of business. At the same time, management organizations provide services on the basis of contracts concluded with associations of homeowners and receive income from their activities.

This paper proposes the involvement of managing organizations in the management of the private housing stock, as this practice gives positive results. Such a system will also contribute to the further development of the country's economy and the strengthening of public-private partnerships.

In our country, as a form of limited liability company, a Professional Managing Company is established, formed on the basis of the Memorandum of Association and the Charter, by combining the funds of the participants of the Managing Company to engage in industrial, entrepreneurial, commercial and other economic activities. In its activities, it is guided by the Civil and Housing Codes of the Republic of Uzbekistan, the Laws "On Private Homeowners' Partnerships" and "On Limited and Additional Liability Companies", Decree of the President of the Republic of Uzbekistan of February 11, 2005 under No. 5, the Memorandum and Articles of Association and other regulatory acts.

The main objective of the Managing Company is to obtain income from the provision of services to owners or bodies authorized by the owners, partnerships of private homeowners, owners of residential and non-residential premises in apartment buildings and other organizations or persons managing real estate.

The management system proposed in this article provides for the achievement of efficiency by transferring management functions to professional management companies on a contractual basis by partnerships of private homeowners.

Expanding the range of services of professional management companies using their market-oriented mechanism contributes to the emergence of demand for various services for the management and development of the market. Their effective and market-oriented activities, in turn, by the example of Private Homeowners Partnerships, will help to shape management customer services.

Conclusion

In conclusion, the following suggestions are recommended:

- raising public awareness about the activities of housing associations and the need for homeowners to comply with the approved standards for the maintenance of common property, ensuring transparency in the expenditure of mandatory contributions paid by homeowners to maintain the housing stock, clarifying that homeowners have equal rights with members of the homeowners housing association in managing the housing stock it is possible to achieve significant savings in funds allocated annually for the maintenance of common property.

- to periodically inform the PHP members about the annual plans and the progress of their implementation, it is proposed to create an electronic website for each PHP, open an email for each member of the PHP and introduce interactive services to establish a close relationship with the homeowner;

- particular attention is currently being paid to further strengthening partnerships between the public and the private sector for the country's economic development. From this point of view, in order to achieve the effectiveness of housing management and taking into account that quality services should be provided by specialists with in-depth knowledge and experience in the field of maintenance, repair and maintenance of a private housing fund, it is proposed to involve professional managing organizations in the management;

- currently, high demands are placed on service enterprises in the housing and utilities market, which in turn necessitates the involvement of qualified managers and specialists in the work of such enterprises. Based on this, mechanisms are proposed for improving the system of training qualified personnel to ensure the quality management of private housing stock.

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Issue Article

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ALĀUDDĪN ABU BAKR IBN MAS'UD IBN AHMAD AL-KASĀNĪ'S SCIENTIFIC HERITAGE

***Abstract**: This article will be given a brief account of the effective and centuries-old scientific work of Abu Bakr ibn Mas'ud ibn Ahmad ibn al-Kasānī (d. 587/1191), one of the proud and well-known scholars, who was given the name "Mālik al-Ulamā'" and described as "Sultān al-Ulamā'" in his time.*

***Key words**: Mālik al-Ulamā', Namangan, fiqh, Alāuddīn, Bukhara, Tuhfa al-fuqaha, Fatima al-Samarkandi, Badāi al-sanā'i fī tartib al-sharā'i (Fine arts in the arranging of Sharia law).*

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Introduction

In the twelfth and thirteenth centuries, sciences such as the Qur'an, hadith, jurisprudence, belief, and mysticism flourished in Mawarannahr. The services of scientists from the region have played an important role in this field. In particular, Abu Bakr ibn Mas'ud ibn Ahmad ibn al-Kasānī (d. 587/1191) is one of the leading scholars of this period who made a great contribution in this regard. Abu Bakr ibn Mas'ud ibn Ahmad ibn al-Kasānī, mentioned in the book *"Al-Fawāid al-Bahiya fi tarājimil Hanafiya"*("Gorgeous benefits in the translations of Hanafi") as Mālik al-Ulamā', is a well-known jurist, mystic, and poet who lived and worked in the twelfth century. He grew up in an educated family in what is now Namangan Province. The scholar's *"al-Kasānī"* ratio refers to the place of his birth, the city of Kasān in the northeastern Namangan region. Today, the city is known as Kasānsāy [4:85].

In addition to *"Mālik al-Ulamā'"* ("King of Ulama"), A'lāuddīn Abu Bakr al-Kasānī is also known in the Islamic world for his titles such as *"Sultān al-Ulamā'"* ("Sultan of Ulama") and *"A'lāuddīn"* ("Praiser of Religion"). Unfortunately, the exact date of Abu Bakr al-Kasānī's birth has not yet been determined, but it is said that his death took place in 587/1191 [10:121].

A'lāuddīn al-Kasānī had a great interest in learning from a young age and memorized the Qur'an completely. He, then, came to Bukhara in search of knowledge and studied with such well-known scholars as Imam A'lāuddīn Muhammad ibn Abu Ahmad al-Samarkandi. Abu 'Asim Muhammad ibn Ibrahim ibn Muhammad A'bd Allāh al-Harawi wrote in his book *"Tabaqāt al-Hanafiya"* ("Hanafi layers") about the biography of A'āluddīn al-Kasānī: "He analyzed the masterpieces of jurisprudence with Imam A'lāuddīn Muhammad ibn Abu Ahmad al-Samarkandi together. A'lāuddin al-Kasānī wrote a commentary on A'lāuddīn al-Samarkandi's work *"Tuhfa al-fuqahā'"* ("Gift for the faqihs") and presented it to this teacher. A'lāuddīn al-Samarkandi was pleased with the masterfully written work and married his daughter Fatima, a leading scholar and jurist, to his student A'lāuddīn al-Kasānī, and his daughter accepted the comment as a dowry. Fatima, a jurist, memorized her father's book, *"Tuhfa al-fuqahā'"*. For this reason, rumors that A'lāuddīn al-Kasānī "commented on his teacher's book and married his daughter" were circulating among the people at the time [5:158; 6:371].

After the marriage, Fatima and A'lāuddīn al-Kasānī, who were unique in jurisprudence, hadith, and calligraphy, and their mentor, A'lāuddīn al-Samarkandi, worked together. Abu Bakr Kasānī and his wife Fatima traveled to several countries in search of knowledge. In particular, they visited the Turkish region and Damascus and tried to acquire knowledge. In Damascus, he studied the science of hadith from the leading hadith scholars of his time, mastered this science, and made disciples in Damascus. Under their leadership, students came from different regions, including *Khorasan, Damascus, Egypt, and the Hijaz.* It is noteworthy that among his students were muftis and senior judges of *Halaviyya and Shibliya madrasahs.* Historians, referring to the biographies of these students, point out that he was "educated under Imam al-Kasānī" and point to the scientific level of his teacher. In particular, Jamāliddīn al-Ghaznawī is one of the scholars of Hanafi jurisprudence who wrote: *"Kitāb usūl al-dīn"* ("The Book of Fundamentals of the Religion")*, "Al-Hawi al-Qudsi fi furū' al-fiqh al-Hanafi"* ("Al-Hawi al-Qudsi in the branches of Hanafi jurisprudence"), and "*Rawzatu ikhtilāfi-l ulamā'"* ("The difference between scholars") are well-known in the world of jurisprudence.

A'lāuddīn al-Kasānī was sent as an envoy to the ruler of Aleppo, Nuruddīn al-Zangī, about 541-543/1146-1148, where he lived for the rest of his life. During Kasānī's stay in Aleppo, the government was ruled by the Zangī and Ayyubis, and the country's scientific environment was stable. For more than 40 years, Kasānī served as "Chairman of the Ulama" in the Zangi state (which now includes Syria, Iraq, Jordan, and Palestine). He soon gained great fame here and was appointed chief teacher of the Halaviyya Madrasah, built by Nuriddīn al-Zangī at the request of local jurists. Before this, ar-Razi as-Sarakhsi was the head teacher of the madrasa, and the Taliban were not satisfied with the pronunciation errors due to his fluency. Al-Kasānī's respect for the madrasah is so great that even in the absence of the teacher, a place of worship was set up for him, and he sat around him from the time he arrived until he got up. Al-Kasānī was a high-level scholar and a sharp-witted orator. He fought against various ideological currents in scientific debates. In such debates, the scholar has won the recognition of those around him by revealing the true nature of the dissenting views of his interlocutors based on irrefutable evidence and by responding to every opinion in an objective, truthful and rational manner based on true Islamic teachings.

As for A'lāuddīn al-Kasānī's surviving scholarly legacy to date, his well-known work in the field of *jurisprudence*, *"Badāi al-sanā'i fī tartib al-sharā'i"* (Fine arts in the arranging of Sharia law), plays a major role in the Islamic world. Many manuscripts of this book have been preserved and have been reprinted several times [1:3; 3:19].

A'lāuddīn al-Kasānī's *"Badā'i"* embodies the scholar's extraordinary talent and skill. Sheikh Muhammad Sadiq Muhammad Yusuf, one of the most famous modern scholars, described the book as follows: "This is a great book. All jurists have used it and will continue to use it, insha'Allah. A'lāuddīn al-Kasānī's *"Badā'i al-sanā'i fī tartib al-sharā'i"* (Fine arts in the arranging of Sharia law) has been recognized as an authoritative and excellent legal source in Muslim countries for almost a century, and is still taught as a textbook on Islamic law. In *"Badā'i al-sanā'i fi tartib al-sharā'i"* (Fine arts in the arranging of Sharia law), he skillfully commented on matters of worship and conduct. In conclusion, the commentary on *"Badā'i al-sanā'i"* is one of the most comprehensive, complete, and well-documented sources of Hanafi literature. Kasānī's most notable work is, of course, Islamic jurisprudence. It is also said that the scholar has had works on Islamic theology, such as *"Al-Sultān al-Mubīn fi Usūl al-dīn"* ("Sultan described in the origins of religion") and *"Al-Kitāb al-Jalīl"* ("The great book"). Although the names of many of the scholar's works have been cited in various sources, they have not yet been identified [3:19].

In addition to this work, Abu Bakr al-Kasānī has a treatise on the creed, which is called *"Al-'Itiqād Lil Kasānī"* ("Kasani's belief"). It is also known as *"Al-Mutamad fil-Mutaqad"* ("Dependent on belief"). A manuscript of this work is now in the National Library of Paris under inventory number № 825/3. The total volume is 4 sheets. Although small in size, the work is an important source in the teachings of Māturīdīya. The author focuses on the issues of the word and enriches it with his comments. A'lāuddīn al-Kasānī shows Māturīdīya's approach to each word issue and then comments on it himself. The study of the scientific legacy left by A'lāuddīn al-Kasānī provides a deeper insight into the history of *aqīdah,* the position of the Hanafi sect, and the scientific environment in which the scholar lived [5:158; 10:121].

A'lāuddīn al-Kasānī's wife, Fatima, should also be mentioned in more detail due to her contributions to Islamic studies. This is, because, she is one of the few women scholars in the East who is unique in *fiqh, hadith,* and *calligraphy*. When this family of intellectuals lived in Aleppo, the ruler Nuruddīn al-Zangī paid great attention and courtesy. The ruler, who had great respect for the intellect and knowledge of these two jurists, consulted with them on some important matters and was interested in their views on various jurisprudential matters. Sources say that

Fatima, a scholar of Hanafi jurisprudence, sometimes pointed out her husband's mistakes and shortcomings in the field, and al-Kasānī accepted his views. When the family decided to return to Mawarannahr, they sent a letter to Fatima bint Muhammad, the ruler of Aleppo, who was well aware that al-Kasānī would not change his mind in any case. Look, Fatima does not accept the letter because the ambassador was a man. Surprised by the piety of the scholar, the ruler sends a female ambassador for the second time. Hazrat Fatima accepts the request of the ruler and these two great scholars will stay in this city until the end of their lives. She was the first woman to sell her gold jewelry, break her fast for a month, and break with the good tradition. To this day, this tradition has survived in Aleppo. Fatima, who died in this city, is now buried in the cemetery known as the "Couple's Tomb".

In addition to honoring his wife, al-Kasānī also served in the cause of religion. After Fatima's death, Abu Bakr al-Kasānī used to visit his wife's grave every Friday until the last day. The great jurist died on August 3, 1191, the tenth day of the month of Rajab, 587 AH. He was buried next to his wife Fatima in the Hanafi cemetery inside the shrine of Abraham on the outskirts of Aleppo. Ibn al-Adim, one of the famous scholars, narrated the death of the scholar al-Kasānī: "I heard Ziyauddīn Muhammad ibn Khāmis al-Hanafi says that: He began to recite Surah Ibrahim until Allah Almighty said:

يُثَبِّتُ ٱللَّهُ ٱلَّذِينَ ءَامَنُوا۟ بِٱلْقَوْلِ ٱلثَّابِتِ فِى ٱلْحَيَوٰةِ ٱلدُّنْيَا وَفِى ٱلْـَٔاخِرَةِ

continued until the word. He died when it came to the word "وَفِى ٱلْـَٔاخِرَةِ". He was buried in the shrine of Abraham".

Qasim ibn Abdullah ibn Qutlubuga said in his "*Taj at-Tarajim fī Tabaqāt al-Hanafiya"* ("The crown of translations in the layers of Hanafi") about A'lāuddīn al-Kasānī: "Al-Kasānī had prestige, service, and courage".

The life of A'lāuddīn al-Kasānī and his importance in the Islamic world is incomparable. This article gives a brief overview of the life and work of this scientist. There is no doubt that his scientific legacy will help professionals, as well as the younger generation.

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Issue **Article**

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ABOUT THE COSMOGONY REPRESENTATIONS OF THE KARAKALPAKS FROM FOLKLORE DATA

***Abstract**: This article discusses the ancient cosmogony ideas and worldviews of people in the oral works of the Karakalpak people. The sky, heavenly bodies, earth, water, air, human relations are preserved in the minds of people, and the author analyzes them. The author gives examples from folklore works such as myth, legend, fairy tale.*

***Key words**: myth, legend, folklore, religion, cosmogony, ideas, natural phenomena, sky, earth, sun, moon, man, sacrifices, soul, body, spirit, power, beliefs.*

***Language**: Russian*

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О КОСМОГОНИЧЕСКИХ ПРЕДСТАВЛЕНИЯХ КАРАКАЛПАКОВ ИЗ ФОЛЬКЛОРНЫХ ДАННЫХ

***Аннотация**: В данной статье рассматриваются древние космогонические представления и мировоззрения людей в устных произведениях каракалпакского народа. Небо, небесные светила, земля, вода, воздух, человеческие отношения сохраняются в сознании людей, и автор их анализирует. Автор приводит примеры из фольклорных произведений, таких как миф, легенда, сказка.*

***Ключевые слова**: миф, легенда, фольклор, религия, космогония, представления, природные явления, небо, земля, солнце, луна, человек, жертвоприношения, душа, тело, дух, сила, верования.*

Введение

Возникновение некоторых истоков религиозных пережитков зависит от мифологических представлений. Мифы, отражая в себе свойственные им образы, сближают их с религией. Они существовали в форме рассказа о каком-то воображаемом событии. Первобытные люди по своему объясняли разные природные явления. Эти объяснения являлись коллективной фантазией и представлялись действительно существовавшими. Окружающая среда, то есть космические, природные явления оказались им непонятными. Первобытный человек обладал недостаточным опытом, чтобы поддерживать друг друга полноценными мыслительными чувствами, чтобы свободно корректировать многогранные «тайны» природы.

Однако, им пришлось со временем размышлять над причинами столь грандиозных и чудесных явлений. Они понимали, что имеются какие-то общие сходства или связь между их собственной жизнью и природой. Её наблюдали, предполагали, что-то измеряли, и наконец, делали «соответствующие» выводы, которые стали «мерилом» их существования. Такие попытки к окружающей среде «должны были тревожить душу и занимать воображение человека, который впервые начал задумываться над тайнами мира, где он жил, человека, мысли которого стали проникать в более отдаленное будущее. Естественно по этому, мучимый подобными опасностями, он делал всевозможное для того, чтобы возвратить круглую форму серебряного ночного светила» [1, с.359]. Таким образом и появлялись мифологические представления о космосе и природе, которые можно встретить в легендах, сказках из уст народа. До сих пор бытуют среди народа некоторые элементы верований космогонические процессы и мифологические представления.

Мы в данной статье попытаемся раскрыть причины их существования и отношения к религиозным, бытовым пережиткам. Одни из наших предполагаемых древних предков (саки) видели в солнце источник жизненной силы. В определенное время они приносили в жертву Солнцу самых быстроногих коней-скакунов. Это в их представлении означало приносить самому расторопному богу на свете достойную его жертву – самое быстроногое животное. Подобные жертвоприношения Солнцу встречались и у других народов мира.

«Древние греки верили, что Солнце гонит но небу свою колесницу. Потому жители острова Родос, поклонявшиеся Солнцу, как высшему божеству, ежегодно посвящали ему колесницу и четырех коней: их сталкивали в море для того, чтобы они служили Солнцу» [1, с. 95]. Древние мексиканцы «… в жертву приносили кровоточащие сердца и животных. Эти жертвы были скорее магического чем религиозного свойства и имели своей целью не столько умилостивить Солнце, сколько физически обновить запас его тепла, света и движения» [1, с. 95].

Судя по отдельным жанрам каракалпакской фольклористики, мы видим в солнце мужское начало. Например, в загадках говориться:

«Бар биреўдиң бир улы ҳәм де қызы,
Оларды биледи дүньяның жүзи,
Улы түнде, қызы күндиз уйқлайды,
Ҳеш кимге билинбес жүргенде изи»

«У одного есть дочь и сын,
Их знают везде, повсюду,
Мальчик ночью, дочь днем спят,
Никто не заметит их след» [2, с. 34]. (Солнце и луна)

Можно подтвердить это высказывание по произведению классика каракалпакской литературы Бердаха «Шежире» (Родословная). Один из её посвящён разделов легенде о Чингизхане, где говориться о девушке Алмалы Корикли и о её любви к Солнцу. Это девушка забеременеет от луча Солнца [3, с 52]. Мифологические представления такого характера о Солнце встречаются и у других народов. Например, Е.Д. Прокофьева исследуя старые представления селькупов пришла к такому мнению: «Название Солнечного луча совпадает с термином «душа» - *илсат*, что значит «то, чем живёт человек». Только тогда, когда на женщину падает луч солнца, в ней пробуждается новая жизнь – ребёнок. Солнце не только рождает новую жизнь, но и способно оживить умерших» [4, с.107]. Здесь оно принимается как зачинатель всех живых существ в роли мужского мифологического образа. У нас в религиозном лексиконе существует такое выражение «Алла тааланын нуры» или благословение «Алланын нуры жаусын!» («Луч Аллаха» или «Пусть падает на тебя луч Аллаха!»). Здесь слово луч с Аллахом несовместимы. Потому что У Аллаха луч не бывает, луч имеют только Солнце, Луна, Звезды. Можно предполагать, что слово луч заимствовано Аллаху под влиянием ислама от солнца. Достаточно обратить внимание на следующую строку «Ак жарылкап кун тууды» - «По милости истины взошло солнце». Это строка часто встречается в художественных повторах героического эпоса, которые говорят о том, что человек ждал милостей от природы, был готов склонить голову перед ней и безгранично доверял ей. Потому что без солнцы, без солнечных лучей наши предки не видели смысла жизни. Даже и сейчас свет принимается как символ добра, а тьма –зла. Солнце-мужчина распространено на островах, расположенных «между западной оконечностью Новой Гвинеи Австралии», население которых «видит в солнце мужское начало, которое оплодотворяет женское начало, то есть Землю» [1, с.159].

Однако большинство исследователей относят его к женскому образу. С солнцем связано представление о появлении на земле первой женщины. Её называли Ирхун (дочь Солнца)…Хунь, дочь Солнца, является распространенным персонажем кетского фольклора, наиболее известен сюжет о «светлой женщине»… Внимание, которое здесь уделяется образу, Хунь, обусловлено тем обстоятельством, что этот персонаж иногда осмысляется не как дочь Солнца, а собственно само Солнце, соответственно имя Хунь, является мифологическим именем Солнца. Естественно, здесь возникает желание сравнить кетское «Хунь» с общетюркским «Кунь» - Солнце [5, с.82].

Солнце как женской образ употребляется в каракалпакских героических эпосах. Очень часто используется в виде сравнения совершеннолетних героинь. Среди нашего народа бытует такая легенда о Солнце: «Солнце дочь богатого человека, а её муж Луна – сын другого богача. Оба не хотят выйти на свет от того, что они стесняются показаться людям, после чего поссорились друг с другом, и Солнце поцарапало его лицо и оставило пятно на лице Луны. Но народ просить их зайти озарить своими лучами Землю». Есть другие варианты этой легенды. Только здесь Луна и Солнце не муж и жена, а родственники, брат-Луна, сестра- Солнце [6, с.2]. Однако, преобладает мотив семейства космических светил. Во многих народных легендах и мифологических представлениях Солнце и Луна- муж и жена. Например, Селкупская легенда так гласит: «…Солнце-Женщина заскучала одна на небе. Она видела, что на земле люди живут парами-мужчина и женщина. И Солнце пожелало взять к себе в небо мужчину. Долго она выбирала. Наконец нашла избранника и протянула к нему свои лучи-руки. Схватила». Но тут увидела эту сцену ыланта кота (нижняя старуха) и тоже схватила мужчину. Так обе потянули его каждая к себе. В результате разорвали пополам. При этом Солнцу досталось половина без души. Долго старалось Женщина-Солнце оживить мертвую половину, вкладывала в неё сердца разных светлых птиц. Человек на миг оживал и снова умирал. Надоело Солнцу возиться с мертвым мужчиной, иона бросила его далеко от себя. Так и появилась на небе бледная луна [4, с.107].

Интересно то, что люди видели в Солнце и Луне не бога, или сверхъестественного чудотворца, а обыкновенного рядового человека, который мог ссориться с другим или влюбляться в другого, хочет воссоздать семью. Они с этими понятиями хотели, видимо, показать их неисчерпаемые возможности, оплодотворять окружающую среду. Ведь они ещё тогда поняли чувство тепла и света и поклонялись им, приносили жертвоприношение, также известно, что первобытные люди формы семьи и брака, общественного строя переносили на природу, отождествляли их, не отчуждали себя от природы. Молились люди Луне. Они кланялись при новом рождении Луны и приговаривали:

Ай туўыпты Әлем менен,
Қойны толы Қуран менен,
Аўзы толы ийман менен,
Жаңа айларға,
Жаңа жылларға,
Өзиң жеткере бергейсең.

(Луна родилась со Вселенной,
Её объятия полны Кораном,
А язык полон ийманом (молитвой)
Помогай нам самим достигать,
Новых месяцев и новых годов!)

Хотя –айтым- имеет исламизированный вид, отсюда можно заметить отголосок реликтов мировоззрения дальних предков. В старину молились ей при первом новолунии. Кроме того, мужчины и женщины иногда выходили в полнолуние из юрты и кланялись месяцу. Женщины обращались к луне, когда завершался последний месяц беременности и просили «О луна моя, помилуй меня!» [6, с.2]. Исследуя погребальные обряды каракалпаков Х. Есбергенов обращает внимание на надмогильные знаки в виде полумесяца. Эти надмогильные знаки будто бы озаряют путь духов умерших. По его мнению такие надмогильные знаки – один из древних пережитков каракалпаков [7, с. 40]. Отсюда можно предполагать, что женщины просили дарить им счастье и потомство.

Особые негодования вызывало у наших предков явления: Солнечные затмение солнца или лунное затмение – знак стихийных бедствий или глашатай начинающейся войны. В связи с этим во время затмения, когда Солнце и Луна предвещали об угрожающей опасности, люди выходили из жилищ и умоляли бога Солнце (Луну) отбросить захватывающую тьму с лица. Кроме того, они сами криком и вращением камчи хотели спугнуть вестника предстоящей угрозы(6,с.3). Однако затмения в большинстве случаев считались не как начало угрозы, а как сама стихия. Неудивительно потому, что затмение солнца часто приводило его (то есть человека) в панику, и он склонялся к мысли, что Солнце или Луна и на самом деле погибнет, если он не поднимет крик и не будет метать в воздух свои жалкие стрелы, чтобы защитить светило от чудовища, который грозит его поглотить [1, с. 359].

Видимо, ранние предки знали знак стихийных бедствий более позднейший, измененный вид от основной его версии. В прошлом Луна и Солнце играли огромную роль при повседневной жизни людей. Они постепенно сумели определять по изменению Солнца и Луны характер времени и количество дней.

Название месяцы тесно связаны с мифологическими представлениями, которые требуют специальных исследований. Так же интересен Лунный календарь года. Он отличается от солнечного календаря тем свойством, что имеет подвижный характер. То есть, месяцы независимо от времени года могут передвигаться каждый год на одиннадцать дней вперед. Это свойство тоже интересно с научной точки зрения.

Наблюдения за месяцами и его движениями легли в основу народного календаря, по ней исчислялись время, возраст людей, сроки родов, ежегодные определенные праздничные дни, церемонии и.т.д. Смотри на положение месяца, ориентировались в пути, предсказывали погоду. Когда-то «Впервые в сознании человека мелькнула смутная идея о начале и конце, о вечности и продолжительности. Изменчивая царица ночи стала великим учителем, мерой времени, которое никому неподвластно, которому подвластно все. Не случайно Луна в санскрите называется «мас» то есть измеритель, неслучайно латинское «менэис» - месяц находиться в тесной связи со словом «мензура» - мера» [8,с.204]. Эти практические значимости долгих наблюдений обусловили важность при повседневной жизни людей.

По старым представлениям каракалпаков сохранился термин «Тангир» в значении «небо», «көк таңири» (голубое небо) и часто встречается в разговорном лексиконе современных старожилов. Небо безусловно являлось предметом поклонения у предков каракалпаков. Об этом свидетельствуют многочисленные виды обращения людей к «тангир» существующих в устном народном творчестве и в героических эпосах. Герои большинства эпосов, когда ощущают слабость перед соперником, вызывают на помощь вместе с разными покровителями и «Тангир», после чего побеждают соперников.

Так же слово «Тангир» встречается в «каменных надписях «Когда было сотворено (или возникло) вверху голубое небо (и) внизу темная (Букв.:бурая) земля между (ними) обоими были сотворены (или возникли) сыны человеческие (т.е. люди) [9, с.36]. Часто используется эпитеты для ощущения величия героя «(Вот) речь моя, богоподобного, небом поставленного (или угодного небу), тюркского мудрого Билке кагана» [10, с.20]. «Небо подобный, небо рождённый (сообств.) «на небе» или «из неба возникший» тюркский каган, Я нынче сел (на царство)» [10, с.33].

В надписях небо изображено как могучая покровительствующая сила. Небо представляется в старых мифологических представлениях семи ярусным. Но сейчас трудно определить назначение каждого яруса, есть только общее понятие о семи небесах. Нынешние старики старухи знают только о небе, где живут духи умерших людей. На другом ярусе бог, наблюдающий за жизнью людей, на Земле, а на самом первом ярусе Солнце, Луна и Звезды.

Вызывает большой интерес само слово «тангир». У нас существуют слова «тан» (заря) и «тангир» (сумерки, вечер). Отсюда можно прийти к следующему выводу: слово «тангир» возможно не религиозного происхождения, а от самой природы. Ведь мы догадываемся, что ранние предки могли взирать с опасением до тех пор, пока не осознали повторение закономерности зари. Поэтому они каждую ночь умоляли, желали, ждали зарю или восход солнца, подумав, что вдруг оно может не взойти, может изменить курс на другую сторону. Примерно таким образом обыкновенное слово (тангир) приобрело религиозный смысл в значении «небо бог» или «заря бог».

Как мы указали выше, в данное время слово «тангир» встречается только в устных народных произведениях, очень редко у представителей современной каракалпакской литературы. Современные писатели используют её как архаизм, чтобы придать дух прошлых времен. Кроме того, в разговорной речи из уст старших поколений мы слышим слова «Танир жарылкасын» («Пусть помилует небо!») в знак благодарности тому, кто оказал ему добро. Когда они недовольны своим поступком, говорят «Тангирдин азабын кордим» (Я испытал мучение неба) или в трудных случаях обращается к небу с такими словами «Танирим коллай гөр!» (Помоги мне небо!). Так же этим словом выражается самое страшное проклятие «Саган танирдин олими!» (Пусть полет тебе небо смерть!) и.т.д.

В старинном народном понятии небо – огромное хранилище душ земных людей. Каждая звезда, расположенная на небе, считается душой каждого человека. Если она падает с неба, то значит: кто-то умер на земле. Предки стихийно связывали свои судьбы с небесными светилами. Они верили в них за то, что звезды, в том числе Солнце и Луна, якобы имеют сверхъестественные силы непременно скажет воздействие на жизнь людей. Мотив падения звезды в представлении многих народов имеет аналогичные понятия. Например, по верованиям сибирских татар звезды связаны с судьбами людей. На небе столько звезд, сколько на земле людей. Каждый, якобы имеет свою звезду. Падание той или иной звезды означает смерть человека на земле [11, с.330]. Есть и другие противоположные понятия о падающих звездах. Южные тувинцы полагали, что между звездами бывают столкновения, в результате которых они погибают и исчезают, причем каждую звезду они считали материком. Если видели падающую звезду, то говорили, что она кочует или едет в гости [12, с.287].

Удачливого человека с счастливой судьбой просто называют «Жулдызы онынан тууган екен» (Его звезда сверкает всегда с правой стороны). В знак благодарности говорят «Жулдызын жарык болсын!» (Пусть твоя звезда будет светлой!) или «Жулдызын балент болсын!» (Пусть твоя звезда будет недосягаемой).

Среди каракалпаков существуют легенды, приобретавшие мифологические признаки об отдельных звездах. Например, нам сообщил информаторы о звезде Шолпан (Венера) которую слышал в детстве из уст старшего поколения. Девушка по имени Шолпан, дочь бедняка, влюбляется в одного парня. Назначили день свадьбы. Но ночь перед свадьбой тянулась долго. Люди томились от темноты. Особенно мучилась Шолпан, у которой должна была состояться завтра свадьба. Они видела своими глазами, как люди страдали от недуга. Чувствовала, что у многих – и старших, и малых приближается смертный час. Чтобы спасти от угрожающей опасности людей она и хотела пожертвовать собой и сказала родителям: «Милый отец и милая мать, я у вас единственная. Очень хотела жить как все люди, рожать детей, приобрести семейство». Но всевышний не хочет этого. Нам не посылает Солнца. Если вы мною пожертвуете, то, возможно, Солнце взойдет и люди будут жить так как прежде.

Многострадальные родители были вынуждены так поступить. Они сделали так, как велела их дочь. Когда перестало бить сердце Шолпан со стороны Востока появилась яркая звезда. Постепенно разошлись темные краски неба, через некоторое время лучи рассвета рассеялись повсюду. На земле стало ярко и вдруг с глаз исчезла та звезда, которая подарила людям свет. Видимо, она вернулась в свое туловище. С тех пор эту звезду люди называют «Шолпан» [6, с.5]. Аналогичная легенда пока не обнаружена нами из других мест нашей территории. Однако в произведениях фольклора имеются многочисленные аналогичные факты. Например, у других народов существуют легенды о девушках - жертвенницах, посвятивших себя небу. Например, «Сагаицы приносили в жертву небу в далекие времена девушек». Их для этой цели брали ежегодно по очереди у старейшин рода. Девушку, будто бы привязанную к плахе, закалывали ножом в сердце и во время моления небу приподнимали на руках, а потом сжигали [13, с.61]. Здесь в обоих жертвоприношениях – небо или Солнце.

Особенно девушки – жертвенницы встречаются в сказках. Известный сюжет народных сказок очень близок по содержанию. Его общее содержание примерно гласит так: Страна или народ подвергается известию дракона (змея), злой старухи или дева (великана), которые собираются уничтожить целый народ, если не обеспечить его едой. Вот, люди каждый раз отдают ему в жертву девушку.

Они все погибают. Узнав о её судьбе, он становиться на её защиту. Он убивает чудовище и женится на ней. В этих легендах и сказках речь идет о девушках, достигших совершеннолетия. Не это ли говорить нам о таких деталях, как попытки брачной связи между людьми и небом, чудовищами.

Название Шолпан так же известно среди нас как боевой клич, по произведению Бердаха «Шежире» (Родословная). Она встречается и в двух местах:

1. Мүйтен туқымы тентек болды,
Жайылханға саўда салды,
Жайылхан бий барин қырды,
Еки бала қалған екен,
Оннан еки бала қалған,
Ана сақлаған Ақшолпан,
Мүйтенге уран болған екен [3, с.150].

(Род Муйтен был шаловливым,
Доставил хлопот Жайылхану,
Жайылхан бий уничтожил всех муйтенов,
Только остались двое детей у них,
Во питала и,
Кормила Ақшолпан,
Имя который стала кличом Муйтенов).

В другом месте говориться:
Мүйтен ураны Ақшолпан.
(У Мүйтенов боевой клич - Акшолпан) [3, с.153].

В этой легенде мы видим кормилицу, спасшую жизнь осиротевших детей и последствии под её воспитанием приумноженных членов определенного рода [14, с.174]. Хотя это легенда мало относиться или вообще не имеет связи со звездой Шолпан, мы чувствуем дух предков, неустанно ищущих благополучия в природе.

И сейчас самых красивых девушек сравнивают с Шолпаном. Называют их именем утренной звезды.

Так же среди звезд известна нам Большая медведица – «Жети қарақшы» (букв. Семь разбойников). Легенда об этом созвездии имеет неустойчивый характер. Одни говорят, что они жили раньше на земле. Были братьями, занимались разбойничеством. Словом, не давали жить людям спокойно.

Однажды белобородый старик их проклял «Жетеўинди жел қапсын!» (Пусть уносит вас ветер). По проклятию старика унес их ветер с земли и на небе они превратились в звезды.

Другие говорят, что будто бы семь разбойников в одном месте собрались и посоветовались где и что есть, хотел добыть богатство. Оказалось, что нет места на земле, где бы они не были. И после долгого разговора они договорились подняться на небо и разбойничать там, у верховных жителей. С тех пор они днем отдыхают на земле, ночью поднимаются в небо и разбойничают. Имеются и другие варианты этой легенды. Все связано с именем – «Жети қарақшы», то есть, смысл сюжета ограничивается поступками «звезд разбойников». Видимо, такие легенды о звездах появились позднее на месте мифологических сюжетов о небесных светилах. И интересно то, что здесь совершенно отсутствует религиозный мотив. Более ранним вариантам этой легенды можно отнести к примеру тувинский или алтайский вариант.

Тувинцы называют её Чеды-хан или Далан-бурхан. «Его связывали с легендой о семи братьях, которые жили на земле, а затем поднялись на небо и стали богами!» Этот вариант легенды очень близок к алтайскому. Распространен среди южных тувинцев и такой вариант. «Когда то на земле жили семь чертей. Они были страшные и опасные. Если бы они остались на земле, то уничтожили бы и Землю, и людей. Но они поднялись на небо и назвались бурханами… Они смотрят с высоты на людей и все видят, что те делают. Простые люди постоянно должны были помнить и думать о них. Этим бурханам всегда после дойки (Вечерней) брызгали кровье молоко (овечье и козье было нельзя).

В юртах этому созвездию устраивали «дагыр» моление» [12, с.285]. Как видно, в этих мифических эпизодах о созвездии – «Жетиқарақшы» (Большая медведица) преобладает религиозный характер. Со поставив эти сюжеты, можно предполагать, что люди раньше относились к звездам как к живым существам, считая их обладающими сверхъестественными силами и долго-долго молились. Наконец, узнав об их неспособности людям помочь, придумали о ней «разбойнические сюжеты». Однако нельзя здесь не принимать во внимание разные психологические отношения людей к звездам с разных сторон.

Более архаичный мотив о Большой Медведице мы встречаем в работе А.Ф.Анисимова. Он приводит такой эвенкийский миф о них: Однажды Хэглэн (космический Лось) выбежал из чащи небесной тайги и увидел на вершине хребта Солнце. Хэглэн подбежал, подцепил на рога солнце и понес его в чащу небесной тайги. На средней земле у людей наступила от этого вечная ночь. Испугались люди, не знали, что делать.

Тогда объявился среди них удалой богатырь Маин. Надев богатырские лыжи… погнался по следу Хэглэн. К полуночи богатырь настиг быстрого зверя и стрелой из богатырского лука поразил могучего небесного лося-Хэглэн. Так добрый богатырь отнял от Хэглэн Солнце и вернул людям средней Земли день, сам же к людям вернуться не мог… Маин превратился в верховного духа, стал хранителем Солнца, подателем дня, источником тепла и жизни.

С тех пор будто бы и идет на земле смена дня и ночи: каждый вечер Лось уносит в чащу небесной тайги Солнце, а благодетельное существо Маин надевает крылатые лыжи и бежит следом за Лосем, пока не настигнет его к в полночь и не отнимет от него для людей день [15,с.12].

Миф отражает в себе и разбойнические (Лось украл Солнце), и религиозные (богатырь Маин превращается в верховного духа) мотивы. Изучив эти детали, у нас возникает мысль, что, не отсюда ли брали начало разные варианты мифа или легенды о созвездиях – «Жети қарақшы» (Большая медведица). До нас дошло только название Большая медведица. Легенду и связанные с ней религиозные обряды кроме отдельных людей никто не вспоминает.

Другим созвездием, почитаемым каракалпаками, было созвездие «Темир қазық» (Железный кол) – Полярная звезда. Об этой звезде информаторы нам не давали удовлетворительных ответов. Только сказали, что «Она неподвижно стоит на небе, поэтому её называли «Темир қазық» (Железный кол)». Но хочется верить, что со временем найдется народное представление об этой звезде.

Можно очень часто встречать в фольклорных произведениях и в повседневной жизни каракалпаков поговорки о звезде Плеяде (Үркер). Например: «Үркерли айдың бәри қыс» (Если плеяда видна-то, значит, зима) или «Үркер үйден көринсе, үш айдан соң жаз болар» [16, с.217]. (Если плеяда видна из юрты, то через три месяца наступит лето). Этот синтез человеческого опыта несомненно родился после длительных наблюдений небесных светил. Наши предки как и большинство тюрк язычных народов вели кочевой, полукочевой образ жизни, занимались скотоводством, охотой.

Они были вынуждены и сама жизнь диктовала им обращаться к звездам. Наблюдали их, чтобы получить ориентир для определения времени года или местонахождения во время кочевания, охоты и.т.д. Так, звезды были ежедневными, еже ночными единственными спутниками, тем более верными спутниками.

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Issue **Article**

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DIDACTIC REQUIREMENTS FOR TEXTBOOKS IN MODERN PEDAGOGY (on the example of the subject «Education»)

Abstract*: This article discusses the problems associated with improving the quality of textbooks in modern pedagogy, the didactic requirements for the textbook, the role of the textbook in improving the quality of education.*

Key words*: Textbook, modern pedagogy, quality of education, scientific character, didactic principles, function, individual growth, teaching methods, educational content.*

Language*: English*

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Introduction

Human experience has shown that a high level of attention to education in the world is the basis of development. The attention paid by developed countries to education and science is undoubtedly the basis for the development of all areas. Today, new scientific and methodological approaches are entering the education system in our country, and it is natural that these approaches will bring positive changes in various organizational and methodological aspects of the educational process. A complex and multifaceted task, such as teaching and educating the younger generation at the level of society's requirements, can be accomplished only by highly qualified and pedagogical teachers. However, the effectiveness and success of the teaching process is in many ways closely related to the quality of the textbooks and the textbook as well

The main type of educational literature is the textbook - an important source of knowledge for students, one of the main tools of education. It reflects the theory and methodology of teaching, the knowledge, skills, general culture and experience of human activity that ensure the formation of the spiritual essence of the child's personality. The textbook is required to be both stable and mobile, and to meet the sustainability requirements, the textbook must have a solid foundation. The blockchain design of the textbook allows for the rapid introduction of new knowledge based on mobility.

The text of the textbook structure is in the following forms:

- descriptive texts;
- story texts;
- Thinking texts

The textbook should ensure that students are consciously and actively involved in the learning process. In solving these problems, the textbook performs the following didactic functions:

- Encourages students to study this subject, creates a positive attitude towards science, creates interest, motivates them to learn;
- allow students to expand their knowledge on the basis of all available methods of providing information;
- training exercises must meet these requirements in order to check the learning process and results, self-assessment and correction, as well as the formation of the necessary skills and competencies;

According to its content and structure, the textbook should be fully consistent with the curriculum of a particular subject. The textbook may not cover a number of topics in the program, but there may be sections that are not covered in the program.

One of the important challenges in improving the quality of education is to improve the quality of the textbook. A good textbook not only increases students 'motivation to learn, but also eliminates shortcomings in teacher training, i.e., the teacher organizes the lesson based on a specific methodological direction based on the textbook. Even if the teacher is of average capacity, the teacher can organize the lesson effectively if the textbook is prepared in a quality manner. According to the researchers who conducted the fundamental research, textbook developers should have a deep scientific knowledge and worldview, a thorough knowledge of the age characteristics of the child and the didactic requirements for the textbook.

One of the important challenges in improving the quality of education is to improve the quality of textbooks. The famous French teacher A.Shoppe once said: "A textbook is a phenomenon that shapes a nation." Well-known scientist MN Skatkin says that the textbook includes a certain level of teaching methods, and the textbook is a unique scenario for future training [2]. Well-known theorists I.Ya. Lerner, VV Kraevsky, N.F. Talizina assess the development of the textbook as the design of the educational process [3; 212-221]. Russian pedagogue D.D. Zuev identifies the following components of the textbook:

1. Texts as the main component of the textbook are in the following forms:

- descriptive texts;
- story texts;
- Thinking texts [4].

2. Non-text auxiliary components:

- Organization of assimilation: questions and assignments, notes, teaching materials, tables, pictures and exercises and their titles;
- Demonstration materials;
- Orientation part: introduction, notes, appendices, table of contents and indexes.

The school textbook performs the following tasks for the student in education:

1. The task of providing information. The textbook provides students with necessary and sufficient information on a particular subject.

2. Systematization task. The textbook requires a logical, systematic and consistent presentation of the subject material.

3. Transformation task. In connection with the pedagogical processing of acquired scientific knowledge, the materials in the textbook are pedagogically adapted to the didactic principles of a scientific nature, taking into account the age characteristics of the student. One of the most important areas of adaptation of learning material is the introduction of problematic, emotional expressiveness. The word "expressiveness" in Latin means expression, manifestation. This term was introduced in 1927 by the Russian scientist NV Timofeev [5].

4. Reinforcement and self-management function. The textbook provides an opportunity to re-learn the material. The formation of solid knowledge in students serves as a basis for further improvement of the process of self-education.

5. Integration function. The textbook helps the child to learn more about the sciences related to it. In particular, the subject "Education" will have information on the subjects "History", "Economics", "Ethics", "Law", "Psychology".

6. Coordinating function. A variety of textbooks, including reference books, problem books, maps, pictures, and documentaries, are involved in the process of working on the study material.

7. Educational function. The textbook content has a strong spiritual impact on students.

8. The task of teaching. When working with a textbook, the student develops skills such as generalization, comparative analysis, distinguishing good from bad, logical memorization, which are necessary for self-education. Requirements for the textbook.

The textbook should ensure that students fully master the learning material. However, the textbook text (unlike the textbook text) serves not only to provide information, but primarily to clarify the content of the science topic. Therefore, the textbook should be interesting, concise and convenient, meet the requirements of scientific character, the tasks of forming a scientific worldview, patriotism, internationalism. The textbook is the main tool of education, in which the subject or its parts corresponding to the program are methodically indicated. It must be suitable for the development of specific scientific knowledge, skills and abilities, contribute to the development of the individual, meet the modern requirements and principles of forms of education. The textbook contains scientifically reliable and up-to-date information, which is formed taking into account the laws of didactics, such as regularity, consistency, consistency, digestibility. It is important for the textbook to create general scientific perceptions of the world around them, to express the system and scope of knowledge to be mastered by the student, to include tasks and examples to help students develop the necessary skills and competencies, to suit students' age and level of preparation [4].

In order to form an emotional-sensory attitude to real-life events, the textbook includes emotion-provoking materials that take into account the intellectual age characteristics of the students. In addition, the textbook should include a high level of summary material and at the same time be equipped with specific, basic factual information. The school textbook should realize the connection between learning and life practice, the practical application of knowledge in educational activities, the relationship between individual academic disciplines. It should be provided with the necessary illustrations in the form of pictures, maps, diagrams, photographs.

The following rules should be taken into account when compiling the textbook:

- to ensure communication, ie to create a dialogue between the reader and the book;

- replenishment of auxiliary teaching aids to increase student interest;

- modeling, creating a model to obtain the necessary information about the topic or event under study;

- if special terms are used, they should have a brief definition and explanation, as well as an index of terms, a system of questions and assignments to work with them;

- the formation of names, concepts, descriptions of laws, explanations of events are required to correspond to the generally accepted in science and practice;

- The use of many unfamiliar concepts in the textbook is prohibited, etc.

The level of complexity of the textbook includes:

- awareness, ie the number and new content of new concepts;

- The complexity of sentences, ie their length, structure, abstraction, etc.

Russian pedagogue V.V. Kraevsky outlines three basic principles for choosing a study material:

1. The principle that the content of education corresponds to the basic requirements of modern science, the level of production and a developing democratic society.

2. The principle of taking into account the unity of aspects of the curriculum in all disciplines, which implies the expression in the relationship of human activity;

3. The principle of integrity of educational content in the formation of educational material, taking into account the individual development of the student. This implies the interdependence, balance and harmony of all components of education

When choosing the content of additional textbooks in science, the teacher should ensure that the selected material is relevant to the learning objectives, while the selected additional material is complex, vital and important enough to arouse the student's interest in science. In order for a lesson to be of high quality, effective and interesting, the teacher must constantly analyze the study of relevant information in order to provide additional information to students in addition to the science textbook. Including interesting and statistical data from various credible sources, biographies of scientists and practitioners, can be enriched with various exemplary stories. But in this case, the combination of theoretical, statistical, illustrative and practical connections that do not stray from the topic will have to be done consistently and beautifully. While the textbook is a presentation of a true science, it should also be open to students, taking into account their age, cognition, memory, level of development of thinking, developing cognitive and practical interests. This should be consistent with the tasks of developing students ’cognitive abilities. The textbook must meet the aesthetic requirements, that is, the location of the material in the textbook should be of interest to students the specifics of the perception of the new, the level of mastery of the previous, and most importantly. The textbook should be moderately colorful, the textbook should have an emotional impact on the reader, interest in the topic under study should emerge. Therefore, it is advisable to use different metaphors, especially in the early stages of learning. Hygienic requirements of the textbook are related to the quality of the text, paper [4]. The single subject "Education" combining the disciplines "Idea and Fundamentals of Spirituality" and "History of World Religions" will be gradually introduced in grades 1-9 from the 2020/2021 academic year, and in grades 10-11 from the 2021/2022 academic year. was put into practice [1]. In the current dangerous situation of globalization, the introduction of the science of "Tarbiya" plays an important role in educating the younger generation in accordance with the requirements of society. Since this subject is based on a combination of several disciplines, there are specific didactic requirements for the textbook.

Methodological requirements for the development of the textbook "Education":

- Achieving full mastery of ethics, knowledge, skills and competencies by students in accordance with the requirements of state educational standards;

- Development of independent and free thinking and creative abilities of students;

- formation of students' scientific worldview and global thinking competence;

- Ensuring the continuity and continuity of education on the basis of a fundamentally new methodology of teaching general education subjects.

Requirements for teaching the subject of education in general secondary schools should be developed at the following stages:

1. Each class lesson should include the types of spiritual and moral, thinking, legal, civic, economic, physical, environmental, aesthetic education;

2. Educate students at each stage in the spirit of respect for national and universal values;

3. Strengthen the effective interaction of the family with the school in the education of students, support the formation of respect for parents, people of other nationalities and cultures on the basis of universal principles;

4. Protection of children's rights and ensuring their legitimate interests;

5. To adapt students to social life through comprehensive, physical, mental, spiritual and moral development and to teach them to make the right decisions in various complex situations;

6. Formation of active civic positions in the child.

Principles of development of a new generation of educational and methodical complex in the education system of the country, as well as requirements for their content and quality:

- Formation of basic competencies in students (competence of formation as an individual, general cultural competence - knowledge of national values and rules of etiquette, reading books; communicative competence - social flexibility. process developed: ability to work, teamwork; competence to work with information - access to information sources; awareness and use of scientific and technical achievements;)

- To inculcate the content and essence of the principle "From national revival to national progress" in the minds of students;

- preparing students for successful social life;

- strengthening active civil positions;

- Defines the tasks of forming such qualities as responsibility, obligation, legal consciousness and legal culture, deep worldview, sound faith, deep enlightenment, tolerance.

The preparation of the textbook of education is aimed at forming an active civic position in students, promoting their comprehensive socialization, effective cooperation, meaningful organization of time, respect for national, spiritual and universal values, the realization of their intellectual and creative potential. At the same time, the groundwork has been laid to increase the effectiveness of the following preventive measures aimed at identifying and preventing the root causes of negative situations among young people, and drastically reducing delinquency and crime. In this regard, to instill in students a sense of national pride and dignity, a sense of humanity aimed at preserving the material and spiritual heritage, to achieve full mastery of knowledge and life skills by students in accordance with state educational standards, to develop students' independent and free thinking and creative abilities. - Improving the effectiveness of education on the basis of the creation and implementation of methodological complexes, improving the methodology of teaching general education

Principles of development of educational-methodical complex:

1. Aesthetically decorated, interesting, aimed at providing students with quality knowledge in this subject, directing them to the right path of education, helping them to acquire the necessary knowledge and life skills, to adapt to independent living, to form decision-making skills based on legal and moral criteria in different situations and requires the following complex of educational and methodical complexes rich in psychological and pedagogical materials;

2. The educational and methodical complex is created on the basis of the basic principles of the state policy in the field of education;

3. Taking into account the mental and physical capabilities of students, age, psychophysiological characteristics, level of knowledge, interests, abilities;

4. aimed at instilling in students a sense of patriotism and national pride;

5. The necessary volume of general secondary education is provided, aimed at developing students' independent creative thinking, organizational skills and practical skills;

6. Consistency of topics, advanced pedagogical technologies, effective use of media products

Didactic requirements for the textbook:

- Ensuring full mastery of learning materials by students;

- texts do not serve to provide information, but to serve the purpose of understanding and applying the content of the subject by students;

- interesting, concise and convenient for everyone;

- formation of a scientific worldview, meeting the requirements of patriotism and interethnic harmony, consisting of materials based on concrete evidence;

- education is aimed at ensuring the connection between everyday life and practice, the formation of the ability to apply the acquired knowledge in practice, to ensure an integral connection with other disciplines;

- Illustrations in the form of pictures: decorated with media products, including maps, drawings, diagrams, tables, diagrams, photographs, infographics;

- new concepts, terms, rules, definitions and similar vocabulary should be expressed in accordance with the level of psycho-physiological development of students.

Conclusion.

The quality and effectiveness of education is directly related to the fact that the textbook meets the modern requirements, the age characteristics of students, the corresponding didactic requirements. Therefore, the complete reform of textbooks in the education system, the emphasis on the development of students' logical thinking, is closely linked with the demands and needs of the time. The textbook should be designed in such a way as to ensure the conscious and active participation of students in the learning process, to motivate them to learn, to develop specific scientific knowledge, skills and abilities, to promote personal development, to meet modern requirements and principles of education.

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Issue Article

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MECHANISMS OF ORGANIZATION OF EXTRACURRICULAR ACTIVITIES TO ENSURE THE INDIVIDUAL DEVELOPMENT OF THE CHILD (On the example of social sciences and humanities)

***Abstract**: This article discusses the pedagogical conditions for the organization of extracurricular activities in the individual development of students, their formation as individuals and professional self-awareness, as well as the role of teachers, educators and subjects of education.*

***Key words**: "Extracurricular activities", individuality, "team spirit", educational opportunities, motivation, planning, child opportunity, professional interest, career guidance.*
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Introduction

In today's era of man-made civilization, globalization and popular culture, the issue of child rearing is becoming more and more important. In this process, it is becoming important for every subject responsible for the upbringing of a growing child to understand that today's attention to the child is a product of tomorrow, and every minute is a prize in the matter of upbringing. In recent years, the leading issue in the upbringing of a harmoniously developed generation in our country is considered to be the leading issue of effective organization of children's leisure time, improving the material and technical base of their spiritual, moral and physical upbringing, further improving the quality of personnel [1].

The effective organization of extracurricular activities has attracted the attention of teachers and methodologists at various times. The first information about extracurricular activities can be found in 18th century Russian sources.

During this period (aristocratic boarding schools and general), students in schools read excerpts and essays from their translation work in their spare time. The concept of "extracurricular activities" first appeared in the works of V. Sheremetevsky in the XIX century [3; 20].

By the 60s and 70s of the twentieth century, extracurricular activities became an integral part of the pedagogical process in Soviet schools, including Uzbekistan. In modern pedagogy, there are different definitions of the term "extracurricular activities". IA Kairov describes it as follows: "Extracurricular activities are organized by the school in order to expand and deepen students' knowledge, develop individual abilities of students, as well as to organize their leisure time" [2; 12]. Sukhomlinsky argues that student isolation into the learning process can only be overcome with their success. He pedagogically substantiates the fact that it is more beneficial for children to be educated in the spirit of community rather than individual education [4]. Indeed, the child is formed as a person in the class community, trying not to lag behind their peers, to catch up with them. However, the fact that our young people have too much free time causes them to waste their time on the Internet, in various entertainment clubs, to join various hooligan groups and movements. Therefore, every subject of education, be it a teacher, a class teacher or a parent, should be responsible for the effective organization of students' extracurricular time. In many cases, the teacher and class teachers or the school team only pay attention to the child during the lesson and the parents are responsible for the situation after class. However, most parents do not have enough control over their children's free time when they are growing up due to carelessness, irresponsibility, illiteracy in the upbringing of their children due to work, household worries. This in turn leads to shortcomings in the formation of the child as a full-fledged person. Extracurricular activities are primarily seen as initiative activities.

The main initiators are: science teachers, class teachers and additional education teachers, parents. In this case, if the educational potential of parents, the state of upbringing is not satisfactory, class teachers, science teachers should give the right direction and advice in involving their children in extracurricular activities. Most parents care about the future and the future of their children and focus on the conditions and attention to the effective organization of their free time. The main purpose of extracurricular activities is to effectively organize the leisure time of students, to involve them in certain types of activities, public, socially useful activities that interest them. Extracurricular activities in secondary schools should be organized in such a way as to ensure the individual development of each student based on the study of their interests and hobbies. Purposeful and proper organization of extracurricular activities helps the child to develop as an individual and successfully adapt to society, to make a conscious career choice [10; 277-279]. Each student will have a unique ability. Many educators say that there is no such thing as an incompetent child, only that there are children who do not understand it. Extracurricular activities help to show the creative potential of each student, his abilities. The personality traits that shape a child's individuality: initiative, independence, and the emergence of originality require the use of innovative approaches in the organization of extracurricular activities. The most important task of the educator in organizing and conducting extracurricular activities is to teach students to solve learning tasks. To do this, it should be borne in mind that the correct choice of methods of action consists in controlling the leadership activities of their actions, the transfer of independent work skills to other important life situations [6; 18-21]. Adherence to the principles of humanity, freedom and democracy in the extracurricular activities of the teacher with the student ensures the effectiveness of pedagogical interaction [5]. In the early stages of engaging students in extracurricular activities in the subject of "education", it is important for teachers to be aware of the approaches to general education in setting the right goals and in the future of the school.

In the early stages of organizing extracurricular activities, teachers and class leaders need to motivate students to engage in extracurricular activities. There are the following forms of its organization: individual lessons, public works, competitions, quizzes, trips to museums, school exhibitions, excursions, creative clubs, sports clubs, etc. Based on the forms of work we have listed, the teacher can determine the interests of the child, his propensity for the field of science, his potential opportunities, interests. On this basis, the teacher will be able to develop and propose an individual development trajectory for each student. It is also used in documents regulating the educational process, including pedagogical literature, as "extracurricular activities", "extracurricular activities" or "extracurricular activities" and "extracurricular activities". Russian educators V.A. Slastenin, I.F. Isaev, A.I. Mishchenko, E.N. Shiyanov admit that extracurricular activities can be considered as extracurricular activities. N.M.Verzelin distinguishes the following main features of extracurricular activities:

1. Venue (extracurricular and extracurricular activities)
2. Time-consuming after-school activities.
3. Form of activity related to the solution of educational problems

If we talk about the planning of educational work after school and the pedagogical requirements to it, the planning of classroom and extracurricular educational activities of primary school students has its own rules. In this case, the pedagogical class team should get acquainted with the state of education of each student. In particular, students' family life and conditions, parents' sense of duty to raise children and the student's attitude to daily changes, students' knowledge of national values and customs, traditions, knowledge of the works of scientists and thinkers who grew up in their country, etc. The educational process and forms of educational work must be organized in a way that meets the requirements of the present time. One of the leading forms of extracurricular activities is the independent study of students under the guidance of a teacher, in science classrooms, libraries and at home, built on the basis of self-control. This includes the material base of education for extracurricular activities: literature for additional activities, visual aids, didactic materials, the rational use of technical means. One of the most important and necessary conditions is the ability of the student to self-manage in the effectiveness of extracurricular activities and activities. This, in turn, promotes the full mastery of science, the orientation to any profession, as well as ensures the active participation of the student in various activities. Methods of planning classroom and extracurricular educational work The general plan of classroom and extracurricular activities under the guidance of the Deputy Director for Spirituality and Enlightenment It is advisable to compile it with the active participation of the leaders and discuss and approve it at the school meeting [8].

Planning should be a creative process in which the work of the class teacher should not stop working with children, should not be rigid, should be constantly enriched and should be considered as a creative approach. When planning class work, tasks should be set to develop the class community not only in an educational but also in an educational way.

Planning serves as the most important factor in the quality management technology of a class teacher. Planning gives the class leader the following opportunities:

- to study the class community, the level of education and their educational opportunities;
- a clear understanding of the purpose of developing the classroom education system;
- Defining strategic and tactical objectives of education;
- the appropriate choice of forms, methods and means of educational activity;
- based on the analysis of the results, the class team of each subject in the education system to predict the results of management activities, analytical substantiation of the content of activities to plan development progress, identify future pedagogical problems;
- formation of goals and objectives;
- selection of a system of measures to ensure the achievement of goals and solutions, etc. [9; 57].

The plan of educational work of the class teacher is a obligatory pedagogical document. It is especially effective to organize small pedagogical meetings with science teachers on the interests of students. The work plan can be made in quarterly, semi-annual and annual forms. Extracurricular activities also involve identifying the stages of a child's development as an individual. In the organization of extracurricular educational work it is expedient to take into account the following:

- Recognition of the child as a value, individuality, respect for individuality, respect for social rights;
- Reliance on specific traditions and values of nationality;
- formation of mutual respect between teachers;
- High educational opportunities of the family and the neighborhood, taking into account the specific characteristics of children and parents, etc.

The organization of extracurricular activities requires, first of all, creativity and high responsibility from the teacher. It is also important to be pedagogically skilled. The reason is that boring exercises that are not fun make the child bored and cause him to lose motivation to engage in extra activities. In the organization of educational work, teachers are guided by the following principles: the purpose of educational activities is to inculcate national spirituality in the minds of the younger generation and turn it into a belief; to influence the child's heart and mind by linking the educational process to national and universal values; Ensuring the integration of education with education, enriching educational work with factors that unite the student body; to determine the level of upbringing of children in the process of upbringing and to develop their positive aspects; respect and assertiveness of the child's personality, etc.

The effective organization of the student's free time after school is important for his future career. Because after school, the activities and clubs in which the child is engaged prepare the ground for his targeted activities. Today, the main task of secondary schools is to prepare the younger generation for future activities as active members of society, as selfless people in any field or profession. Vocational orientation should be considered as the most important task of school activities. Not only the school but also other social institutions including the family, the neighborhood, the youth union are responsible for this. The main task of vocational education in extracurricular activities is to create the basis for the development of the child's mental, moral, physical development, abilities and talents. The main task of vocational education in extracurricular activities:

- full disclosure of the child's capabilities and abilities;
- preparing young people for free thinking and life;
- formation of self-management and control;
- the emergence of a purposeful approach to personal life, unity of plan and action [9].

In the implementation of professional education, it is important to ensure that universal values are always in the center of attention and adhered to. One of the most important factors in the development of student spirituality is the orientation of students to reading in the organization of extracurricular activities. In this regard, in addition to science topics, the teacher of "Tarbiya" should form a list of literature that is important for the spiritual and moral development of the child and constantly advise children and monitor their visits to the library. When choosing a book, the reader should recommend books that are mainly based on national education, such as "Nightmare", "Social etiquette", "Turkish Gulistan or morality" or psychologically motivating, depending on the age of the reader. Some students will need a teacher-given direction in this regard. The formation of a reading culture in students should also be planned as one of the most important tasks of extracurricular activities. The work of science teachers and class leaders in collaboration with the school library staff, and the holding of extracurricular reading competitions among the school or class community, increase students 'motivation to read.

There is a need to prepare teachers for this process, who organize professional education on the basis of modern requirements. Career orientation should be considered as one of the primary tasks in the activities of class teachers, science teachers and should have the following components:

- vocational education;
- professional activation;
- professional advice;
- professional adaptation.

The class teacher, school psychologist and science teachers are responsible for career guidance in the school, and the class leader is the central figure in this area. He performs the following functions in career guidance:

1. To help students understand themselves.
2. Participate in the organization of socially useful and productive work of students.
3. Regular acquaintance with the types of professions and their content.
4. Promotion of occupational indicators necessary for the region;
5. Orientation of students to a systematic profession in collaboration with parents, studying their professional interests, intentions, opportunities, abilities.
6. Organizing meetings and excursions with representatives of various professions.
7. Organize additional science circles.
8. Coordinating the actions of science teachers, etc.

In high school, students are asked, "What does it mean to choose the right career?" And "How do you prepare yourself for life?" It is advisable to hold creative work and essay competitions and interviews with parents on the topic "My interests and aspirations." In doing so, students observe the importance of career choice. However, the analysis of surveys showed that career guidance work is almost non-existent and those responsible for this process do not have information on occupational indicators. This problem is explained by the fragmentation between the types of education, the weakness of cooperation between the subjects of education. Of course, if the younger generation gets acquainted with which professions are in high demand in their country, it will be possible to prevent disparities in the placement of personnel in our country. In this process, the IBU, the Statistics Department, and the Employment Assistance Center should work with higher education on a cluster system. We believe that information on which professions are in high demand in the region should be transmitted to the IBR as information [9; 54-55]. Effective organization of extracurricular leisure time, firstly, prevents them from being exposed to various negative influences, and secondly, prevents the student from wasting valuable time, and ensures that they grow up in accordance with the requirements of society. Lessons and extracurricular activities, which are the main organizational form of teaching, in any form, can give a high pedagogical effect only if they are fully implemented in terms of scientific-theoretical, scientific-methodological and spiritual-educational. At the same time, of course, the age and physiological characteristics of students, interests, level of knowledge, scope of thinking should be taken into account. This requires a high level of pedagogical skills and professional potential of the educator. Effective organization of leisure time of the younger generation is a guarantee of their future.

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Issue Article

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ANALYSIS OF THE FINANCIAL STATEMENTS OF ENTERPRISES AS A TASK FOR INDEPENDENT WORK OF STUDENTS

***Abstract**: This article describes the purpose of studying the discipline "Finance" by undergraduate students of the direction of study 5230600-"Finance"; considers the requirements for the level of knowledge, skills, and abilities of students who have studied this discipline; gives a description of the content of two modules of the discipline; considers the concept of financial analysis; and gives the description of the possible use of analysis of the financial statements of enterprises as a task for independent work of students.*

***Key words**: finance, independent work, financial statements, financial analysis.*
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Introduction

The discipline "Finance" covers issues such as the formation of financial resources of economic entities and their effective use in order to achieve the goals of economic and social development of the country, as well as the study of development trends in areas and spheres of the financial system of the country. The discipline "Finance" gives students the necessary knowledge to understand the development of the financial system of the country and the practice of implementing financial relations, to understand the directions of market economic reforms.

"Finance" is an academic discipline included in the block of special disciplines of the "Finance" study plan for undergraduate education 5230600-"Finance" and is studied in 1-4 courses during the II-VIII semesters. This discipline is interconnected with many other curriculum disciplines in this direction of undergraduate education.

The main goal of studying the discipline "Finance" is to form knowledge of the theoretical and legal foundations of organizing financial relations in various fields, in the development and implementation of financial policies of economic entities, as well as skills in practical use for highly qualified specialists-economists who meet modern professional requirements.

The main objective of the discipline "Finance" is the formation of students' knowledge in the field of theoretical, legal, and organizational fundamentals of financial relations, their acquisition of skills and abilities in the management of various spheres and parts of the financial system, current trends in the development of the financial market, financial relations between various parts of the financial system.

To achieve the goal and accomplish tasks, the discipline "Finance" is designed to develop students' theoretical knowledge, practical skills, a methodological approach to financial events and processes and to contribute to the formation of a scientific world-view. Students who have studied the discipline “Finance” should meet the following requirements to obtain qualifications, knowledge, skills, and abilities in this discipline. Students should:

● have an understanding of the essence and objectives of finance, the financial system, financial decisions, financial policy, household finance, finance and capital structure, and financial management;

● know and be able to use financial planning and regulation, financial control, financial risks, small business finance, financing startups, financial reporting, financial activities of financial institutions;

● have practical skills and abilities in the spheres of determination of the importance of the profession of a financier or financial manager, description of the tasks of financial authorities in the Republic of Uzbekistan, implementation of insurance relations, formation and use of financial resources of business entities, description of the financial foundations of the circulation of fixed and working capital, organization of financial control, use of the theory of financial risks, calculation of production costs, profits, and profitability of business entities, analysis of financial ratios on the basis of financial statements of enterprises.

The academic discipline “State budget” includes several modules. Students of the 3 year of education in the direction 5230600-“Finance” study two modules of the discipline “Finance”:

— Module IV. “Finance of business entities”. The content of this module covers such questions as “Essence and functions of finance of business entities”, “Financial management in the enterprise”, “Financial resources of business entities”, “Financial aspects of the circulation of fixed and working capital”, “Production costs and profits of business entities”, “Fundamentals of pricing policy and pricing of business entities”, “Finance and capital structure”, and “Finance and corporate strategy”;

— Module V. “Financial reporting and investments in enterprises”. The themes of this module describe “Financial reporting: content, functions and types”, “Use of financial ratios in financial statements”, “Role of the financial statements of the enterprise in financial planning”, “Financing investment programs”, “Investment appraisal methods”, “Finance and the formation of an investment portfolio”, “Finance of small business entities”, and “Startup financing”.

The total number of hours of discipline “Finance” allocated to study the topics of these two modules is 228 hours, of which 60 hours are lectures, 60 hours are practical classes, and the remaining 108 hours or 47% of the total number of hours is self-education of students.

University professors and teachers use different types of independent work of students like taking notes on textbooks, teaching aids, texts of lectures, writing essays, solving tests, writing essays, preparation of presentations, working with cases, and others [1-11].

Every teacher tries to find new ways to organize students' independent work, including searching for information on the Internet, working with various sites, reading articles and other materials, studying statistical, practical, and analytical reports [12].

Let's consider the possible way to combine several types of activities in one task for independent work.

One of the themes of the Module V is “Use of financial ratios in financial statements”. Students should learn foundations of financial analysis and have appropriate knowledge, skills, and abilities to analyze the financial statements of any enterprise using different financial ratios.

Financial analysis is the process of evaluating businesses, projects, budgets, and other finance-related transactions to determine their performance and suitability. Typically, financial analysis is used to analyze whether an entity is stable, solvent, liquid, or profitable enough to warrant a monetary investment. Financial analysis can help managers make future business decisions or review historical trends for past successes, and investors choose the best possible investment opportunities. Financial analysis is very important to evaluate economic trends, set financial policy, build long-term plans for business activity, and identify projects or companies for investment [13].

Financial analysis is the examination of financial information to reach business decisions. This analysis typically involves an examination of both historical and projected profitability, cash flows, and risk. It may result in the reallocation of resources to or from a business or a specific internal operation. Financial analysis is one of the key tools needed by the managers of a business to examine how their organization is performing. The outcome of financial analysis may be any of these decisions [14]:

— Whether to invest in a business and at what price per share?

— Whether to lend money to a business and if so, what terms to offer?

— Whether to invest internally in an asset or working capital, and how to finance it?

The task for independent work is to analyze the financial statements of one of the enterprises of the Republic of Uzbekistan based on data of the Internet-site http://openinfo.uz/en — Corporate information portal of the Ministry of Finance of the Republic of Uzbekistan. This site publishes different information about main data of the joint-stock companies of the Republic of Uzbekistan. Its main sections are “Essential facts”, “Prospectuses”, “Quarterly reports”, “Annual reports”, “Announcements”, “Statistics”, and “Issues”.

This independent work of students includes the following stages:

1. The teacher should give the student the name of one enterprise in Uzbekistan as an object for the study, explain the instructions and describe the required form for the presentation of the results of the work.

2. The student must study the structure of the site and the content of its main sections, as well as learn how to use the data search mechanism to find information about the given enterprise.

3. The student should find the financial statements of the enterprise, copy them fully into a Word document and copy the data of the financial statements into an Excel file.

4. The student should analyze the balance sheet and income statement of the enterprise using five main groups of ratios, including profitability ratios, asset turnover ratios, financial leverage ratios, liquidity ratios and market value ratios. The student should use appropriate formulas and prepare an Excel table with original data and all calculations. The teacher should be able to check the correctness of all calculations.

5. The student should give his expert opinion based on the made calculations in the form of Word document. He should give full description of the financial performance of the analyzed enterprise and answer next questions:

— if you work as a usual loader in this enterprise, should you continue to work?

— if you are working as a sales manager in this enterprise, should you continue to work?

— if you are employed by this company as a sales accountant, should you continue to work?

— if you work at this enterprise as a financial manager, how do you evaluate the results of your decisions?

— if you are the director of this enterprise, should you close it, or will you continue to work?

— if you are a tax inspector, does this company pay taxes correctly?

— if you are a local government representative, will this enterprise make economic or social problems in your district?

— if you are the head teacher of the school, can this enterprise provide you with sponsorship?

— if you are a loan officer at a bank, would you lend to this company?

— if you sell raw materials and materials to this company, will you continue cooperation?

— if you buy the goods from this company, will you pay for them 3 months in advance?

— if you are the owner of this business, are you satisfied with its management?

— if you have temporarily free cash and want to invest it profitably, will you buy a share of this company?

After completing this task, the student will consolidate theoretical knowledge and gain the necessary skills and abilities to analyze the financial statements of an enterprise using financial ratios. He will also understand the importance of understanding the financial statements of enterprises for various categories of individuals, enterprises, organizations, and government bodies.

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Issue Article

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EXERCISES FOR PRESCHOOL EDUCATIONAL CHILDREN AND THEIR DESCRIPTION

Abstract*: This article provides examples of physical education classes for preschool children, exercises that negatively affect their healthy development during morning physical education and the reasons for their limited and limited use, exercises that are recommended to be replaced.*

Key words*: Exercise, morning physical training, sitting on the heel, building bridge, standing on your head, turning, moving your legs in a butterfly way.*

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Introduction

Today, the further improvement of the entire system of preschool education in the Republic of Uzbekistan, the strengthening of the material and technical base, the expansion of the network of preschool educational institutions, the provision of qualified teachers, a radical increase in the level of preparation of children for schooling, the introduction of modern educational programs and technologies, a number of programs have been developed aimed at creating conditions for comprehensive intellectual, moral, aesthetic and physical development.

Under the program, a lot of work is being done in the field of physical education to control the physical development of children. An important task of physical education is the formation of a healthy, energetic, hardworking, cheerful, kind, enterprising, educated, physically developed and loving sports, able to move independently in the environment, able to go to school and beyond. active creative activity.

Therefore, it is necessary to carry out the process of organizing and conducting physical education classes with a very attentive and responsible approach to each specialist. This is due to the fact that the musculoskeletal system of a growing young organism is not yet sufficiently developed. It should be borne in mind that the unintentional use of prohibited and restricted exercises, especially in physical education, can lead to negative consequences and have a significant negative impact on the physical development of the child's body. That is why the study of exercises prohibited and restricted for use in physical education by preschool educational organizations and the development of a methodology for their recommendation is one of the most relevant today.

Thus, the purpose of the work is to study and develop and scientifically substantiate the methodology for recommending and limiting the use of prohibited and restricted exercises in physical education classes by preschool education organizations.

Materials and methods: Research sources are: literature reviews on the topic, media information and methodological documents. In the study of the topic, bibliographic (literary) and retrospective (historical sources) analysis, theoretical generalization and comparison, systemic and integrated approaches were used. The main research method is a comparison of historical and modern data sources of information.

Results and their analysis. Based on the data obtained, the following table presents a classification of exercises with negative consequences for preschool children (Table 1). We recommend ways to replace them in any case.

Table 1. Exercises with Prescriptive Consequences for Preschool Children

Recommended Exercise	Replacement	Restriction
1. Dizziness	Bend your head forward, turn left and right	Due to the fracture of the bones, the fact that the spine is located in the cervical spine, the neck muscles are good underdeveloped
2. Tilt your head back	There is no recommended exercise instead	
3. Stand up straight	There is no recommended exercise instead	
4. Excessive elongation of the neck.	Perform shoulder up and down exercises	
5. Sit and fall with legs wide open (spatula)	Butterfly movement of the legs	Displacement of pelvic bones due to brittleness of bones
6. Bridge building exercise	Move your arms upwards to the gymnastic ball (a large inflatable ball that rests and inflates) while lying on your back.	A blow to the ground with the spine causes concussion
7. Exercise the abdominal muscles: lift the legs up in pairs	Raise and lower the legs in turn	It affects the neck and head arteries during muscle tension, possibly leading to constriction of the nerve vessels
8. Raise the umbilicus forward	There are no recommended exercises instead	Insufficient development of the muscles of the cervical spine
9. Raise and lower the body behind the head and arms while lying on your back	The arms are in the forward position	Excessive tension of the neck muscles, excessive crushing of the spine with the hands
10. Lifting the body while leaning on the floor with hands	Exercises are performed only under the supervision of a teacher (defense)	Touching the chin to the floor when falling to the floor
11. Raise your waist while leaning your hands on the floor	Perform the exercise with your arms bent at the floor and leaning on your elbows	It can cause various diseases due to the compression of the ridges in the lumbar region of the spine.
12. Sitting on the heel	Sit in a circle	It can cause injury to the knee joint and joints
13. Hanging exercises for more than 5 seconds	There is no recommended exercise instead	Leads to injury and weakening of muscle joints

14. Perform breathing exercises while raising the arms at the same time	Changing arm position: arms at waist or side	As the upper shoulder girdle muscles contract, it becomes difficult to breathe (oxygen)
15. Jumping exercises barefoot on hard surfaces (parquet, concrete, floor, asphalt, etc.)	Perform jumping exercises only on gymnastic mats	Weakening of the compensatory muscle joints leads to improper formation of the sole bones of the foot (between the heel and the toes)
16. Running barefoot with the tip of the foot (nosochke)	Running in sneakers (shoes, keta, etc.)	The soles of the feet (toes) do not form properly
17. Walking on the inside and outside of the sole of the foot until you move to a large group	Walking on tiptoe and heel	Weakness of compensatory muscle joints

The data presented in the table suggest that each exercise was negative, the reasons for the restriction, and the exercise that was positive instead.

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Issue Article

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APPLICATION OF THYRISTOR VOLTAGE STABILIZERS AT METALLURGICAL ENTERPRISES

***Abstract**: The article discusses the main methods of regulating the secondary voltage of furnace transformers (FT) installed to power arc steel furnaces (EAF). Particular attention is paid to thyristor voltage regulators of furnace transformers, which are a promising direction of development in electrometallurgy.*

***Key words**: thyristor, stabilizer, arc steel furnace, furnace transformer, thyristor voltage regulator.*
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***Scopus ASCC**: 2208.*

ПРИМЕНЕНИЕ ТИРИСТОРНЫХ СТАБИЛИЗАТОРОВ НАПРЯЖЕНИЯ НА МЕТАЛЛУРГИЧЕСКИХ ПРЕДПРИЯТИЯХ

***Аннотация**: В статье рассмотрены основные способы регулирования вторичного напряжения печных трансформаторов (ПТ), устанавливаемых для питания дуговых сталеплавильных печей (ДСП). Особое внимание уделено тиристорным регуляторам напряжения печных трансформаторов, которые относятся к перспективному направлению развития в электрометаллургии.*

***Ключевые слова**: тиристор, стабилизатор, дуговая сталеплавильная печь, печной трансформатор, тиристорный регулятор напряжения.*

Введение

На сегодняшний день сменные сталеплавильные печи (ДСП) являются наиболее распространенными сталеплавильными агрегатами в электрометаллургии, позволяющими получать высококачественные стали и мелкодисперсные сплавы известного химического состава. При интенсивном росте объема стали в дуге сталеплавильных печей происходит постоянное совершенствование конструкции и принципов организации технологического процесса. Существует несколько поколений ДСП:

1) Печи малой мощности с маломощными трансформаторами до 6 МВА (до 30 тонн). Они работают в основном на литейных и специальных металлургических заводах;

2) печи емкостью 35-100 тонн, трансформаторы мощностью 35-50 МВА без дополнительных источников энергии. Такими агрегатами оснащены электросталеплавильные

цеха (ДСП), построенные в 50-60-х годах прошлого века;

3) печи емкостью 100-400 т, оборудованные некоторыми устройствами для плавки и трансформаторами, обеспечивающими удельную мощность 0,5-1,25 МВА/т. К этой категории относятся практически все печи, построенные в СССР в 70-х и 80-х годах прошлого века;

4) печи емкостью от 70 до 250 т, оборудованные топливно-кислородными горелками мощностью более 3,5 МВт, водоохлаждаемыми стеновыми панелями и водоохлаждаемыми складами, удельной мощностью трансформаторов 0,8-1,2 МВт/т. При этом они имеют удельную потребляемую мощность от 280 до 360 кВт/т, обеспечивая цикл плавки от 40 до 60 минут.

Печные трансформаторы (ПТ) используются для согласования параметров сети с параметрами дуговой печи. Среди эксплуатационных характеристик печных трансформаторов следует отметить:

1) значительные номинальные мощности (до 300 МВА);

2) высокие значения напряжения и, соответственно, мощности короткого замыкания на первичной стороне печного трансформатора необходимы для ограничения колебаний напряжения в питающей электросети, связанных с нестабильным режимом работы печи при выплавке стали;

3) малые аварийные напряжения и большие токи (вторичное напряжение силовых трансформаторов мощностью до 100 МВА обычно не превышает 900-1000 В, вторичные токи достигают нескольких десятков килоампер);

4) Тяжелая нагрузка ПТ, т.к. процесс плавки стали в дуговых печах сопровождается резкими и частыми изменениями токов нагрузки из-за оперативных коротких замыканий, обрывов дуги и технологических перерывов.

Тиристорное регулирование вторичного напряжения печного трансформатора

Перспективным техническим решением для оптимизации режимов работы ДСП является установка тиристорного регулятора на третьей обмотке печного трансформатора (рис. 2) [1].

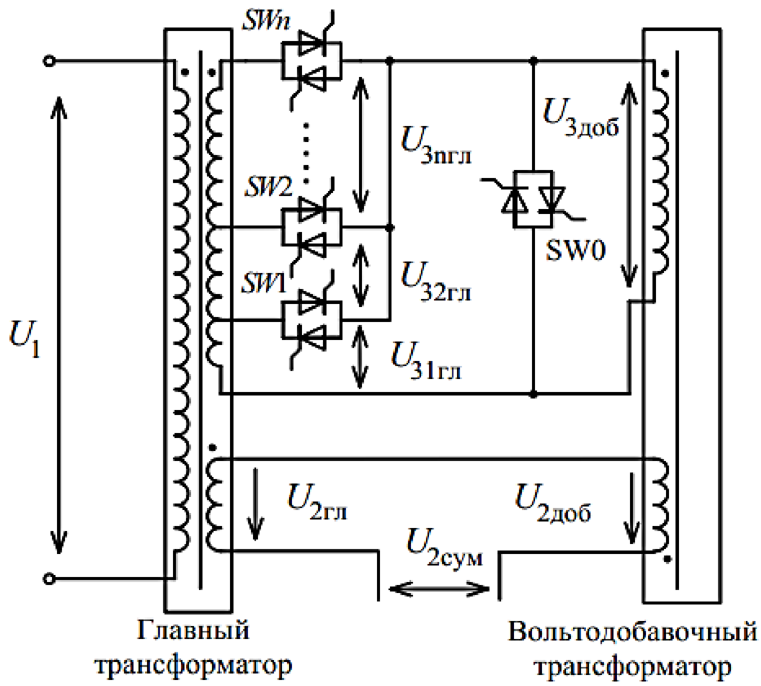

Рис. 2. Электрические схемы регулирования напряжений ПТ

Основную функцию регулирования выполняют главные тиристоры *SW1 – SWn* , а тиристоры *SW0* предназначены для обеспечения дроссельного режима работы вольтодобавочного трансформатора в моменты закрытого состояния основных тиристоров, т.е. отсутствие возможности возникновения токов короткого замыкания, при открытых главных тиристорах. Приведенная на рис. 2 схема при наличии одной пары основных и одной пары шунтирующих тиристоров позволяет плавно изменять напряжение вторичной обмотки в пределах от 0,5 до $U_{ном}$ и мощность, которая пропорциональна квадрату напряжения, от 25% до 100% от номинального значения. Введение бесконтактного регулятора напряжения позволяет с минимальной задержкой переходить с одной стадии плавки на другую и исключить неконтролируемый процесс плавки продолжительностью 2-3 минуты, наблюдаемый при переключении ступеней традиционных РПН [4, 5]. Кроме сокращения времени работы под током предлагаемое решение позволяет убрать из схемы устройство переключения отпаек ПТ под нагрузкой (РПН), которое имеет ограниченный ресурс и требует периодической профилактики и замены. Применение тиристорных регуляторов напряжения ПТ снижает потери мощности в печи и увеличивает динамические показатели системы [2, 3].

Для сверхмощных печей наиболее оптимальной считается схема с установкой тиристорного регулятора в третичной обмотке ПТ. Для маломощных комплексов из-за более низких значений токов эксплуатационных коротких замыканий возможно применение бесконтактного регулятора напряжения во вторичной обмотке ПТ. В качестве параметров управления в САУ тиристорного регулятора можно задать все вышеперечисленные электрические величины. Режимы стабилизация активной и реактивной мощности ДСП, токов и мощности дуг направлены на повышения стабильности горения дуг и улучшения электрических режимов ДСП. Управление бесконтактным регулятором напряжения по первичному току ПТ предназначено для снижения колебаний и несимметрии напряжений на шинах распределительного устройства сталеплавильного комплекса.

Заключение

Дуговая сталеплавильная печь является одним из самых мощных приемников электроэнергии не только в металлургии, но и во всех областях. Дуговая печь представляет собой резкопеременную и несимметричную нагрузку, обладающую свойством нелинейности тока напряжения, поэтому к оборудованию, устанавливаемому в системе электроснабжения ДСП, предъявляются особые требования по выбору и подбору параметров в сложных условиях. невосприимчивость к шуму. Одним из способов оптимизации работы ДСП является увеличение быстродействия устройств регулирования вторичного напряжения печного трансформатора.

Различные электрические параметры можно регулировать с помощью тиристорного регулятора напряжения. Выбор режима управления тиристорным регулятором напряжения зависит от конкретных задач по обеспечению стабильного процесса плавки или минимизации влияния ДСП на качество электроэнергии в питающей сети. При этом рассматривается вариант стабилизации первичного постоянного тока, позволяющий повысить качество работы электроэнергетики в токопроводах сталеплавильного комплекса.

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