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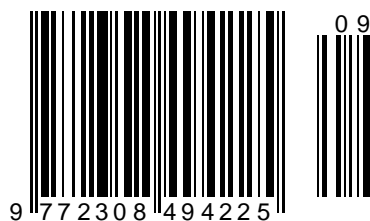
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ANALYSIS OF THE FEATURES OF THE CAR SALES PROCESS IN THE «AVTOEXPRESS-VLADIMIR» DEALERSHIP

Abstract: The analysis of the activity of the "Avtoexpress-Vladimir" dealership was carried out in the article. The organizational and economic characteristics of the center's activities and the features of the car sales process were considered. The main factors affecting the functionality of the car dealership were determined. Recommendations were given to eliminate the shortcomings of the dealership.

Key words: dealership, car, customer.

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Introduction

Modern economic conditions objectively change the relationship between producer and consumer. In this regard, the car dealership should be considered in a broad sense (as the infrastructure of road transport) [1-3]. In a market economy, this area turned out to be quite profitable for the application of private capital, hundreds of new enterprises of various profiles appeared in a short time. Two factors contributed to this: the extremely limited market for services and the growing motorization of the population.

The dealer network of automotive service companies in Russia is constantly increasing (by about 7.3% per year) with an annual increase in the fleet of cars (by about 5.1%). In the conditions of high rates of development of the automotive maintenance system, there is a fierce struggle of car manufacturers for owners of motor vehicles, which, first of all, requires the provision of high-quality competitive services [4-9].

In the traditional sense, car service implies the whole range of services provided to owners of vehicles: trading services, maintenance and repair services, additional services.

Using the example of the "Avtoexpress-Vladimir" dealership, the analysis of the features of the car sales process was carried out, on the basis of which positive and negative factors affecting the functionality of the car dealership were determined.

Characteristics of the activity

The "Avtoexpress-Vladimir", LLC is the official Lada dealer in Vladimir and the Vladimir region. The "Avtoexpress-Vladimir" is the official dealer of the following brands: Vesta, XRAY, Granta, Largus, Niva Legend and Niva Travel in Vladimir [10].

The "Avtoexpress-Vladimir" dealership carries out wholesale and retail sales of passenger cars, original spare parts and accessories, repairs, as well as warranty and service maintenance of Lada cars.

The full list of services provided by the car dealership includes:

1. Vesta, XRAY, Granta, Largus, Niva Legend and Niva Travel car sales process;
2. The process of selling used cars;
3. The process of selling auto parts;
4. Organization and conduct of the pre-sale preparation of cars;
5. Organization and maintenance of cars;

6. Organization and conduct of car repairs;
7. Provision of services for the repair and painting of car bodies;
8. Ensuring the warranty repair process;
9. Provision of additional services.

The car dealership in question has a number of advantages:

1. A large range of additional equipment;
2. Quality assurance at relatively low prices for services;
3. High-quality car service;
4. Discount system for regular customers.

The "Avtoexpress-Vladimir" dealership has its own equipped maintenance service center, spare parts warehouse and extensive exhibition areas.

The "Avtoexpress-Vladimir" works with leading insurance companies and banks, which allows us to provide the customer with a wider choice of car insurance programs and loan programs for the purchase of a car.

The desire to meet the needs of its customers, transparency of all transactions and the high level of service are the main principles of the dealership. This allows you to hold the position of one of the leading car dealerships in Vladimir.

Analysis of the sales process

Since the establishment of the "Avtoexpress-Vladimir" dealership is constantly in development, the range of services is expanding. The priority direction of the policy of the "Avtoexpress-Vladimir" company in the field of quality is to meet the requirements and expectations of all stakeholders, expanding the circle of customers and strengthening the reputation of the company as a stable enterprise.

The organizational and management structure of the "Avtoexpress-Vladimir" meets the requirements of the market and the specifics of the company's services. It is based on a linear-functional method of management, which allows you to effectively coordinate the work of divisions.

The general management of the salon is handled by the executive director, who is subordinate to the heads of departments, employees and workers working for hire.

One of the most important conditions for trouble-free and long-term operation of any car is the use of only original spare parts and consumables during its maintenance and repair, which have passed more than one test, and the reliability of

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which is certified according to international standards. The "Avtoexpress-Vladimir" dealership provides a large selection of original spare parts of the excellent quality. All spare parts are covered by the company warranty, according to the conditions of the manufacturer. The large number of spare parts are available (in stock), an order is also possible. The car dealership guarantees timely delivery.

The dealership in question is characterized by the high level of material and technical base, mechanization and automation of the heavy and labor-intensive work, which include:

1. Loading and unloading operations;
2. In-store movement of cars;
3. Preparation of goods for sale;
4. Settlement operations with the customers using cash POS terminals and other electronic equipment that allow you to quickly and efficiently work with the large range of inventory items.

The most important stage in maintaining the leadership of the "Avtoexpress-Vladimir" dealership in the car sales market is the advertising strategy of the car dealership. The dealership has established the organization of marketing research of the automotive market, specific marketing strategies have been formed and various methods are used in promoting the model to the market. The car dealership advertising implies the implementation of the program to promote Lada products in the press, on the Internet, on regional television and radio, in the form of billboards.

The "Avtoexpress-Vladimir" dealership maintains the customer database, which allows you to determine your target audience, and based on this, make the advertising campaign more targeted. Also, with its help, the car dealership employees regularly collect customer reviews, analyzing which they get a general idea of the degree of the customer service and the quality of cars provided to them.

The sale process of cars in the "Avtoexpress-Vladimir" dealership is a combination of the following subprocesses:

1. Meeting customers;
2. Advising customers;
3. Organization of the transfer of a new car to the customer;
4. Clarification and consolidation of the warranty rights of buyers;
5. Transfer of documentation and the car;
6. Organizing an attention call;
7. Maintaining communication with the customer;
8. Introduction of the internal document management;

9. Analysis of sales results, development and organization of corrective actions.

The realization of the company's goals is achieved by:

1. Long-term planning the work of the company's structural divisions;
2. Continuous improvement of the professional level of the staff;
3. Personal responsibility of each employee for the quality of the work performed;
4. Creating a favorable corporate environment in which every employee of the company is confident in their value to the company;
5. Improving the customer service culture;
6. Continuous improvement of the profitability of the organization by reducing all types of losses.

Based on the analysis of the activities of the "Avtoexpress-Vladimir" dealership, it can be concluded that the quality of services provided (the work performed) depends on many factors:

1. The level of organization of the technological process (application of information systems and software);
2. Organizational system of the car service management;
3. Employee qualifications;
4. Used spare parts;
5. Equipping the enterprise with technological equipment (automation, mechanization and computerization);
6. Organization of marketing activities;
7. Financial management of the dealership;
8. The correctness of planning the car dealership activities, etc.

The analysis of the dealership's activities shows that along with the advantages of organizing, planning, and conducting car sales, there are the number of obstacles to the successful functioning of the car dealership:

1. Reduced customer satisfaction from the car dealership services;
2. Non-compliance by the supplier with the terms of delivery of cars, spare parts and additional equipment.

Conclusion

The analysis made it possible to determine the shortcomings of the dealership work. The solution of the identified problems can be accomplished by increasing the profit of the car dealership from the sale of new cars and spare parts, increasing and maintaining the number of the car dealership customers, improving the quality of the customer service and the efficiency of interaction between the supplier and the dealership.

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References:

- Balbutskaya, E. (2014). Russian transport infrastructure development. *Russian Journal of Logistics and Transport Management, Vol.1, No.2*, 21-30.
- Pynnoniemi, K. (2008). The transport infrastructure in Russia: from modernization to development fact and fiction. *The Finnish Institute of International Affairs. F7L4 Briefing Paper*, 16.
- Sherbanin, Y. (2005). Transport infrastructure. *Russian Federation today*, 9, 58-60.
- Bychkov, V. P., Proskurina, I. Yu., Usova, Yu. P., & Shibaev, M. A. (2019). Corporate service development car service. *The Journal "Region: systems, economics, management"*, №3 (46), 126-131.
- Korchagin, V. A., Khabibullin, R. G., & Makarova, I. V. (2013). Perspective directions of development of firm automobiles service system. *Fundamental research, № 4 (part 4)*, 806-811.
- Vetrov, A. S., et al. (2017). Quality and innovation of customer support services. *Bulletin of the Saratov State Socio-Economic University*, 26-31.
- Shakirova, D. Yu. (2013). Provision of Stability of Production System through Development of Firm Service System. *The Russian Journal of Entrepreneurship, №21 (243)*, 86-90.
- Usufov, M. M. (2012). Prospects of development of car-care center. *Technical and technological problems of the service, №1 (19)*, 72-77.
- Ishkina, E. G., & Koriakina, E. A. (2015). Corporate auto-centers: ways to remain competitive. *Theory and practice of social development, №10*.
- (n.d.). *Official Lada dealer in Vladimir*. Retrieved from <https://avtoexpress33.lada.ru/>

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Article



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CHRONOTOPE AND ITS ROLE IN THE COMPOSITION OF THE WORK (On the example of Karakalpak literature)

Abstract: The article deals with the chronotope and its important role in the composition of the work. The place of the concepts of space and time in fiction and the scientific and theoretical foundations of its study are considered. It is noted that when the concepts of space and time pass into fiction, or migrate, it is given in a different direction. That is, the space and time, where the real events of life take place, is narrated in an artistic way by the writer-poet. This process performs the function of the basis in the structure of the plot and composition in the work, in the deep coverage of the lifestyle and psychology of the characters. The article widely analyzes the artistic features of the chronotope on the example of the works of M. Nyzanov and M. Taumuratov.

Key words: Chronotope, detail, composition, work, plot, craftsmanship, writer, events and actions.

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ХРОНОТОП И ЕГО РОЛЬ В КОМПОЗИЦИИ ПРОИЗВЕДЕНИЯ (На примере каракалпакской литературы)

Аннотация: В статье речь идет о хронотопе и его важной роли в композиции произведения. Рассмотрены место понятий пространства и времени в художественной литературе и научно-теоретические основы его изучения. Отмечается, что когда понятия пространства и времени переходят в художественную литературу, или переключаются, то дается в ином направлении. То есть, пространство и время, где происходят реальные события жизни, повествуется художественным способом со стороны писателя-поэта. Этот процесс выполняет функцию основы в строении сюжета и композиции в произведении, в глубоком освещении образа жизни и психологии героев. В статье широко анализируются художественные особенности хронотопа на примере произведений М. Нызанова и М. Таумуратова.

Ключевые слова: Хронотоп, деталь, композиция, произведение, сюжет, мастерства, писатель, события и действия.

Введение

Поэт или писатель берет в основу художественного произведения бытовые события, произошедшие в реальной жизни в конкретный период и в определенном месте. Поэтому, в композиции любого произведения важное место занимает пространство и время.

В последнее время в мировой литературоведческой науке одно из широко исследуемых важных вопросов, – является концепция пространства и времени. Пространство и время очень широкое понятие. В целом означает место и время размещения (нахождения) всего сущего. В нем некоторые предметы размещаются вечно, а некоторые временно. Пространство

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бесконечно и не имеет границ, время в качестве единицы измерения отображает последовательность событий, непрерывность процессов. Пространство и время есть философское понятие - одно из общих форм всего сущего, бытия. В нем весь процесс проходит один за другим. Ничего не возвращается назад или же не переходит в будущее. А когда, эта концепция переходит в художественную литературу, она заимствуется благодаря мастерству и замысла писателя. «Взаимосвязь отношений пространства и времени, художественно заимствованных в литературе, мы именуем хронотопом. Хронотоп греческое слово, (chronos-время, topos-место) этот термин сначала употреблялся в природоведении. Его в литературоведение ввел русский ученый М.М.Бахтин в своих исследованиях» [1; 234-235].

Идеи, выдвинутые М.Бахтиным в русской литературоведческой науке продолжились в последующем В.Ивановым, Р.Якобсоном, Д.Лихачевым, Н.Мейергоф, а затем в узбекской литературоведческой науке в научных исследованиях ученых З.Тураевой, Н.Шодиева, Б.Каримова, А.Туйчиева, Г.Мурадова, У.Журакулова, С.Мирзаевой, М.Умаровой высказаны научно-теоретические рассуждения, заслуживающие внимания. Особенно, литературовед А.Туйчиев проводил специальное научное исследование о месте и значении концепции пространства и времени в узбекских романах [7], а в работе У.Журакулова «Теоретические вопросы поэтики» высказаны ценные научно-теоретические рассуждения [2].

Этот вопрос в каракалпакской литературоведческой науке не стал объектом специального исследования до настоящего времени, в работах П.Нуржанова, З.Бекбергеновой, Ж.Сагидуллаевой, посвященных исследованию повестей и романов касательно рассуждаемых вопросов, то есть, встречаются в анализах художественных произведений некоторых писателей [5].

Когда понятия пространства и времени переходят в художественную литературу или же переключаются, то дается в другом направлении. То есть, пространство и время, где происходят реальные события жизни, повествуется с художественным приемом со стороны писателя-поэта. Пространство и время - неотъемлемая часть художественного произведения. Оно – литературный процесс, обеспечивающий последовательность систем событий, объективную и реальную действительность. В литературном тексте освещается система событий, произошедшие, происходящие и которые будут происходить в конкретном пространстве и времени. Известно, что при наличии конкретного пространства и времени, произведение сможет иметь свое полное значение

и служит точному раскрытию содержания произведения. Вместе с тем, обеспечивает понятность художественного произведения для читателя.

Основная часть

В художественном произведении события могут происходить последовательно, системно как в реальной жизни в конкретном пространстве и времени. При этом начало сюжета (завязка), кульминация, развязка и финал, то есть концовка даются последовательно. Это является хронологическим сюжетом, изображенным классическим способом. В художественном творчестве подобные измерения пространства и времени условно меняются. Возможно, сокращение или удлинение времени, остановка или возвращение назад, перенос пространства из одного места в другое. При таком повествовании, сюжет в художественном произведении изображается не классическим способом. Такое событие или случай начинается с конца или с середины сюжета. Сюжетные события не излагаются традиционным способом последовательно, осуществляются посредством воспоминаний или внутренних переживаний, раздумий, душевного состояния героя. В таких изображениях для передачи художественного пространства и времени кратко и понятно, от писателя требуется особенное мастерство. Например, обратим внимание на художественную роль пространства и времени в строении повести писателя М.Нызанова «Загробный сон», созданного в конце 2000-х годов (Нукус. «Каракалпакстан». 2009) [8; 51-55]. Писатель при изложении событий повести и в освещении внутренних переживаний и душевного состояния героя, особое внимание уделяет на психологические изображения, чем на хронологический сюжет. Писатель условно изменяет измерения пространства и времени в структуре повести, в нем время художественно дается в быстром темпе. То есть, события и действия, которые происходят на протяжении семьдесят-восемьдесят лет, изображаются с уложением в пятнадцать дней.

О значении психологических изображений в изложении событий повести, литературовед К.Оразымбетов в предисловии к этому произведению под названием – «Переживания беспокойной души», рассуждает следующим образом: «...Произведение, пусть насколько полно на жизненные события (детективные действия, натурально изображенные любовные сцены и т.д.), если в нем не участвуют душевные переживания человека, психологизм, то оно не может оказать воздействие на духовный мир читателя»[6].

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Произведение повествуется посредством воспоминаний старика Утемурата, реальные события в нем происходят в промежутке между 20-м и 90-м годами XX века в Нукусе и в аулах вокруг него (Кегейли, Чимбай). Старик Утемурат в повести изображается в качестве героя, испытавшего трудности, невзгоды и страдания войны в свое время, затем борového с неравенством в обществе и выстоявшего всему наперекор. В известных нам произведениях эпического жанра события происходят в конкретном пространстве и времени, автор или повествователь излагается со стороны персонажа. При этом, конечно, в эпических произведениях диалоги и монологи героев требуют воссоединения с изложением автора. Это положение служит воссоздания в мировоззрении читателя художественного события.

В начале произведения удачно раскрыты посредством внутренних монологов старика Утемурата, как он чувствует себя одиноко в старости, находясь среди множества людей. « – Утемурат ага, благословите нас, дай Всевышний нам дожить до ваших лет!... Бедняжки, душой чисты, как не благословлять их? Они восхищаются возрастом моим, но не знают бедняги, каково в старости одинокому человеку без опоры» [6; 11].

Основные события повести начинаются с момента, когда старик Утемурат нечаянно упадет и окажется между жизнью и смертью, меж двух миров. Старик Утемурат чувствует себя легким, как птица и поднимается на небо. На небе он сначала видит умершую давно старушку Базар, потом Емберген и других умерших людей. Разговаривает с ними. Старик Утемурат на небе отправляется в тот мир, потом опять вернется назад. Проявления пространства и времени, где происходят события, изображают реальную жизнь. Тут создаются образы людей, которые могли бы жить среди нас, взяты в его основу череда событий, которые были бы возможны в нашем мире. Но, условия, ставшие поводом для развития событий, раскрыты через внутренние переживания, душевное состояние героя. В произведении посредством образа старика Утемурата выдвигается такое понятие, что если кто в жизни совершит грех, потом он за эти грехи неизбежно ответит сам же.

Художественное пространство и время охватывает в себя все части произведения. То есть, невозможно изобразить размышления героя без художественного пространства и времени. В произведении состояние героев изображаются неосредственно на основе проявления пространства и времени. Начало событий в повести начинается с пожилого возраста старика Утемурата и это кажется, является причиной пережитого им пространства и времени. Так как, в

произведении наравне с рассуждением событий нескольких периодов, все они происходят в конкретном пространстве. В произведении период детства Утемурата, время войны, период студенческой поры, когда он хотел стать ученым и большим человеком, время, когда он работал и занимался наукой, повествуется посредством его воспоминаний. Каждый период в жизни героя происходит в конкретном пространстве. Основное место в период детства «большой сад». «Утемурат с тех пор как помнит себя, там не видел ни большого, ни малого сада. Но, бабушка когда была жива, и отец тоже, рошу с джидой на южной стороне местности называли «большим садом» [6; 24]. Это место для Утемурата и его матери является главным местом. А потом в душевном мире героя изображается художественное пространство и время, оно связывается с событиями из жизни, испытанного им. «К уху Утемурата донесся какой то шум. Он был похож то на гудок поезда, то на звук реактивных самолетов, который летел далеко-далеко, не показываясь Нет, это не вода, оказался лед. Бесконечный лед. Издали показалась ледяная гора, вершина которой покрыта снегом. Утемурат скоро скользил в сторону этого льда. Он сам не скользил. Он ехал на палубе большого ледокола крейсера» [6; 34]. Писатель с мастерством связал пространство в душевном состоянии героя с его реальной жизнью. Утемурат в льдинах увидел доктора Бекнияз, который в детстве, его без причины забрал в больницу плешивых. Через диалоги между героями показана горькая действительность пространства и времени в реальной жизни.

« – Вы тогда не сумели отличить плешивость от темени? – сказал Утемурат Бекниязу.

– У нас был порядок, – сказал Бекнияз. – Больница была новая, чтоб ее не закрывали, каждому району давали план.

– Что нельзя было говорить, что нет!» [6; 41].

Писатель изображает трудную жизнь народа в военные годы, создал в нем разные образы. Это пространство и время в жизни Утемурата имеет особенное место. Он борется ради победы. Также, в произведении типичные образы людей, которые встречаются в реальной жизни и которые борются не для народа, а для самосохранения, ярко выражены в образе Ембергена. « – Моя язва не очень тяжелая, – сказал он ему. – Но я делаю все возможное, чтобы отсюда не выходить. Конец градусника тереблю, поднимаю ложную температуру. Вчера принял горсточку зелья травки, но, сам сильно измучился. Все съеденное рвотой выплеснул. Но, было бы хорошо, если бы не было рвоты. Если обнаружат язву желудка, то отправят в аул» [6; 48]. Герой, вернувшись с войны в следующем периоде своей жизни, чтобы стать большим человеком, его приезд на учебу

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продолжается на его духовном пространстве, и он плывет на моторной лодке на море. Это в реальном пространстве приходится на период, когда только развивалась наука.

Пространство и время, развивая сюжет и обеспечивая продолжительность, помогает раскрытию психологии и действий героя, персонажей. Поэтому в произведении особое внимание уделяется вопросу периода (время) и пространства. Впоследствии старик Утемурат изображается в качестве ученого, внесшего большой вклад в развитие каракалпакской науки. Писатель в целях развития этого образа расширяет художественное пространство героя. «Если другие в период месячного трудового отпуска отдыхали в санаториях-курортах, он прошел пешком Кавказ, ногайскую степь из одного аула в другой, изучал язык, исследовал родственные корни тюркоязычных народов. Изучил тысячулетнюю русскую летопись, собственными глазами увидел, как Едиге батыр на своем коне добрался до Москвы Его продолжение Утемурат решил дополнить на примере стран как Турция, Афганистан, Аравия, Египет» [6; 159].

В сюжете произведения причиной изменения художественного пространства становится конфликт между героями. Возвращению Утемурата из Ташкента способствует письменный разговор Апсамета. Таким образом, писатель посредством изображения проявления художественного пространства и времени излагает свою цель-замысел, идею. В произведении через художественный анализ пространства и времени находят свое отражение социальные, политические и экономические проблемы.

Вместе с тем и в новелле [3; 269-273] писателя Марата Таумуратова [4; 45-50] «Тирилик туткасы» («Нить жизни») хронотоп используется с мастерством. Несмотря на свой малый объем, в нем находит свое отражение жизнь главного героя Ниетбая. Произведение богато на фантастические

изображения, в нем место и время дано без границ. Например, « Душа Ниетбая, спасающая все время его жизнь упала с высокой кровати вниз, где лежал он сам, через некоторое время стала потихоньку подниматься вверх. По мере того, как поднималась вверх, она погружалась во тьму. Как будто наверху зажглась искра света, душа Ниетбая направлялась в ту сторону. Добраться туда было наслаждением, воздух там был особенный и, все там происходило как будто в лучах семи цветов, как радуга. Она остановилась удивленно перед входом в этот рай. Так как, она там встретила свою мать, умершую давным-давно. После этого встретился пятидесятилетний средний сын, который скончался в детской больнице после операции несколько лет назад, а за ним одноклассника, скончавшегося скорострительно этой зимой и еще много знакомых, родственников». Значит, изображение без границ пространства и времени в произведении, с одной стороны служит глубокому раскрытию душевных переживаний героя, с другой, имеет композиционную особенность.

Заключение

В заключение следует отметить, что в композиции художественного произведения важное место занимают проявления пространства и времени. Пространство и время, заимствованные писателем с одной стороны выполняют художественную функцию, с другой, имеют важное место в превращении жизненной действительности в художественную действительность. Если пространство и время, приведенное в произведении писателя, не использовано с мастерством, то оно вызовет у читателя неверие. В нем наблюдаются ведущая художественно-содержательная концепция творца, показано наряду с эстетическими идеями национальное мировоззрение, размышление. Также, художественное пространство и время имеют важное место в воссоздании сюжета и композиции произведения.

References:

1. Baxtin, M. (1975). *Voprosi literaturi i estetiki*. – Moscow: Xudojestvennaya literatura.
2. Jurakulov, U. (2015). *Teoreticheskie voprosi poetiki. Avtor. Janr. Xronotop*. – Tashkent: Izdatel'sko-tvorcheskiy dom imeni G.Gulyama.
3. Kamalova, D.E. (2020). Theoretical and practical study of the genre of novella in karakalpak literature. *International Scientific Journal Theoretical and Applied Science*, Philadelphia, №03(83).
4. Kamalova, D.E. (2021). Znachenie tvorchestva pisatelya Marata Taumuratova v karakalpakskoy literature. *International Scientific Journal Theoretical and Applied Science*, Philadelphia, №05 (97).
5. Nurjanov, P. (2008). *Poetika sovremennogo karakalpakskogo romana (kompozitsionnye i janrovo-stilisticheskie osobennosti)*. –Nukus. Bilim.

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6. Nurjanov, P. (2009). *Sovremenniy karakalpakskiy roman (poetika syujeta i konflikta)*. – Nukus. Bilim.
7. Sagidullaeva, J. (2010). *Stilisticheskie poiski v karakalpakskix povestyax (na primere povestey 1980-x godov)*. kand.diss. – Nukus.
8. Bekbergenova, Z. (2016). *Poetika xudojestvennogo slova v karakalpakskix romanax*. – Nukus. İlim.
9. Nizanov, M. (2009). *Aqret uyqisi (Vechniy son)*. – Nukus. Karakalpakstan.
10. Tuychiev, A. (2009). *Prostranstvo i vremya v uzbekskix romanax*. – T.: Mumtoz so'z.
11. Marziyaev, J.K., et al. (2021). Artistic features of M.Nyzanov's works in karakalpak literature. *International Scientific Journal (ISJ) Theoretical & Applied Science*, №05 (97), Philadelphia, USA.
12. Kamalova, D.E. (2018). *Ko'rkem a'debiyatta ma'kan ha'm zaman kontseptsiyasi* [Concept of space and time in fiction]. Mir nauki i duxovnoy kulturi v usloviyax globalizatsii: opit i perspektivi. Sbornik nauchnix statey. – Nukus. Miraziz-Nukus.
13. Bekbergenova, Z.U., & Kamalova, D.E. (2018). *Ko'rkem a'debiyatta ma'kan ha'm zaman kontseptsiyasin u'yreniwidin' a'hmiyeti* [The meaning of hitting the concept of space and time in fiction]. *Bulletin of the Karakalpakstan branch of the Academy of Sciences of the Republic of Uzbekistan*, Nukus, №1.

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GENRE AND METHODOLOGICAL FEATURES OF MODERN CHILDREN'S PRESS IN KARAKALPAKSTAN

Abstract: This article highlights issues related to the education and upbringing of children, adolescents and youth in the period of today's globalization. In the article, much attention is drawn mainly to the role in the education of the media in society. And indeed, in matters of education and upbringing, a special place is given to the means of disseminating information. From this point of view, in this article, this problem is considered and analyzed on the example of the publications of Karakalpakstan. A versatile explanation of today's activities of children's publications is given. The skill of the authors dealing with this topic is considered and the subject, genre and style features of children's printing are analyzed.

Key words: Education, upbringing, globalization, society, print, children, themes, genre, style, skill, question, theme, analysis.

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ЖАНРОВО-МЕТОДОЛОГИЧЕСКИЕ ОСОБЕННОСТИ СОВРЕМЕННОЙ ДЕТСКОЙ ПРЕССЫ КАРАКАЛПАКСТАНА

Аннотация: В данной статье освещены вопросы связанные с образованием и воспитанием детей, подростков и молодежи в период сегодняшней глобализации. В статье большое внимание обращается в основном на роль в воспитании средств массовой информации в обществе. И действительно, в вопросах образования и воспитания особое место средств распространения информации. С этой точки зрения в этой статье данная проблема рассматривается и анализируется на примере изданий Каракалпакстана. Дается разностороннее пояснение сегодняшней деятельности детских изданий. Рассматривается мастерство авторов, занимающихся данной темой и анализируется тематика, жанрово-стилевые особенности детской печати.

Ключевые слова: Образование и воспитание, глобализация, общество, печать, дети, тематика, жанр, стиль, мастерство, вопрос, тема, анализ.

Введение

В период глобализации появляется проблема сущности образования и воспитания, его организации, для решения данной проблемы перед человечеством особенно требуются современные подходы. Действительно, ни для кого не секрет, что современный век технологии в определенной степени несет угрозу для духовности детей и молодежи. Если говорить о

вопросах воспитания, каждая нация ведет работу исходя из своего менталитета, обычаев и традиции. Поэтому ставим перед собой цель рассмотреть данный вопрос исходя из нашего менталитета, на примере печати Каракалпакстана, который является объектом нашего исследования, и рекомендовать свои выводы по данному вопросу.

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Основная часть.

В последнее время, когда растет и расширяется информационный поток в мире в воспитание детей и подростков естественным образом будет повышаться угроза со стороны чуждых и других враждебных идей. Вместе с тем в результате развития различных информационных технологии требуется повышение внимания на их воспитание, а также требуется защита от враждебных информации. Данный период показывает, что для предотвращения и правильного решения этого вопроса нужно использовать возможности журналистики. Поэтому ведутся научные исследования по направлению детской и подростковой журналистики, широко рассматриваются вопросы авторского мастерства, ведутся исследования, связанные с языком и стилем материалов.

В мировой журналистике различные темы, связанные с жизнью детей и подростков, считается одной из самых актуальных. Потому что, воспитание детей всегда является глобальной проблемой, через это определяется развитие общества в будущем. Особенно, в детском саду и в начальных классах развиваются психические процессы ребенка. Начиная с этого периода в процесс его воспитания, в формирование его взглядов и мировоззрения особое влияние имеют средства массовой информации. В их числе можно отметить детские издания и специальные телепередачи и радиопередачи, рассчитанные для детской аудитории. Если детская литература помогает ребенку еще в детские годы понять общество, то детская журналистика приступает к этому процессу чуть позднее. Несмотря на это детские издания оказывают глубокое воздействие на жизнь детей своей близостью к реальному времени. Поэтому нужно отметить, что детская журналистика играет важное значение в становлении мышления ребенка. Детская журналистика бывшего союза по своему идеологическому направлению, форме имеет значительное отличие от современной детской журналистики. Основная цель детской журналистики того периода заключалась в воспитании личности, составляющей основу будущей коммунистической системы [1; 84-87].

Начиная с 1991 года в Узбекистане детская журналистика и средства массовой информации для детей стала участвовать в процессе формирования людей нового времени. Нужно отметить, что средства массовой информации могут изменить отношения человека к окружающей среде, обществу, культуре. Эволюция средств массовой информации привнесли много хорошего в жизнь. С другой стороны изменения средств массовой информации с технической стороны и в плане

содержания, оказало влияние и на их место в обществе. Кроме этого, в процесс воспитания совершенной личности в государстве привлекаются и средства массовой информации. На основе таких требования и задач в республике происходят большие перемены в развитии детской журналистики. Если исходить с этой точки зрения, то есть, если учесть, что в Республике Каракалпакстан детская журналистика, становление детского издания, их участие в становлении определенных взглядов и мнений в обществе играют важную роль в становлении жизненных ценностей у подрастающего поколения изучение тенденции развития детской журналистики в республике является одной из актуальных проблем.

Как сказала исследователь Дильфуза Камалова, пресса на сегодняшний день остается одним из основных средств наполнения сознания человечества, не только человечества, но и всего общества различной информацией [2; 18-21]. Поэтому в вопросе образования мы должны опираться на это СМИ.

Газетные материалы отличаются освещением, композицией, даже рядом строк. Они делятся на большие три группы: информационные, аналитические и художественно-публицистические [3]. Конечно, начинающие журналисты в начальном периоде своей деятельности должны заниматься информационным жанром. К тому же не стоит забывать о том, что на современном этапе информационные материалы занимают половину газеты. Само настоящее время, скорость потока информации требует этого. Самая главная задача информационного материала подача фактов. А факт для журналиста самая главная вещь. А различия в освещении этих фактов приводят к появлению различных жанров.

Аналитические жанры – широкое применение жанров, они объединяются и обсуждаются. К этому жанру относятся статья, корреспонденция, рецензия. Корреспонденция анализирует группу фактов. В статье объединяются и анализируются факты и явления. Если в корреспонденции события переходят от единичного к общему, то в статье наоборот. В статье берутся факты глобального масштаба, анализируются и поднимается до научно обоснованного заключения.

В художественно-публицистических жанрах точные документальные факты отходят на второй план. Основное внимание уделяется авторскому замыслу, его впечатлениям от фактов, событий. Как сказал ученый Жанабай Марзияев: “художественно-публицистические жанры более эмоционально воспринимают происходящие вокруг события, журналисты в них обобщают действительность. Потому в данное время

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журналисты мало обращаются к возможностям этого жанра” [4; 86-89] (На примере журналистики Каракалпакстана-М.К.)

Конечно, все выше перечисленные жанры могут и не встречаться в детских изданиях. Потому что, степень размышления ребенка, его интересы, а самое главное, его требования совершенно отличаются от требований взрослых. Например, они не воспринимают длинные интервью, беседы о воспитании детей, о методике преподавания. Поэтому интервью для детей должны быть краткими, содержание и направления должны быть в кругу интересов детей. Потому что беседы о различной методике, о воспитании детей как совершенной личности могут наскучить детям. Поэтому, когда используется статья, интервью, комментарии или другой жанр, в детской газете основное внимание должно уделяться уровню мышления детей, что и является первоочередной задачей журналиста.

В газете “Жеткиншек” и прежде, и в нынешнее время больше публикуются литературные жанры, например, повесть, рассказ, случившаяся история, поэма, стихи, и используются. Причина в том, что литература всегда учит человека вежливости, воспитывает человека. Критикует вредные привычки, хорошие показывает для образца. К тому же, вместо того что каждый день наставлять ребенка, ежедневно говорить о воспитании, эффективнее будет подать наставления чуть другой форме. Такая форма может легче дойти до сознания ребенка. Конечно, считается эффективнее передавать мысли через героев художественного произведения, через их поступки и слова, взгляды, мнения. Потому что ребенок ищет героев кумиров, которые могли бы быть для него образцом, примером. Эти герои не должны быть как интернетовские “герои”, у которых на руках оружие, всеми действиями стражающиеся уничтожить людей, герои художественных произведения должны быть умными, глубокомыслящими героями.

Вместе с этим в газете “Жеткиншек” эффективно использованы и основные жанры журналистики. Правильно, очень многие принадлежат к жанрам статьи, отчетов, зарисовок, но можно встретить и другие жанры. В изданиях почему-то на сегодняшний день кажется исчезает жанр интервью. Вместо статьи об образцовом ученике, или успешном спортсмене полезнее беседа с ним. Потому что в нем спортсмен может рассказать о пути пройденном до успеха, живо передаются его внутренние переживания, чувства. А это может иметь больше влияния, чем статья написанная журналистом.

Детская журналистика как и взрослая журналистика является особым социальным институтом, требует своеобразного стиля. Главным звеном в качественной публикации,

основного вида и содержания детского издания являются работники, то есть, журналисты. Также, их уровень знаний, креативность, опыт, мастерство служат для того, чтобы занять место в сердцах читателей. Если современный период глобализации требует от журналиста постоянной работы над собой, то читатели ждут от издания новшеств.

Каждый человек индивидуален, так и журналисты отличаются от других своим стилем и мастерством. Что такое стиль журналиста? Стиль журналиста обозначает его место в журналистике. В журналистике существуют много жанров, каждый день сотни журналистов готовят материалы вокруг одной темы. Среди этих материалов аудитория выбирает самую лучшую, самую значительную, понравившуюся себе. Таким образом, журналист своим творением становится знаменитым. Через стиль его письма, мастерство, качество материалов аудитория узнает журналиста.

Основной показатель стиля – содержание материала, именно этим можно отличаться от других. Заинтересовать аудиторию написанным текстом делает журналиста знаменитым. Но это нелегко сделать человеку, который пишет ежедневно, у конкурентов тоже есть такое оружие, их язык.

У журналиста Я.Ажимова в публицистике “Ығбал шырақлары” [5] (“Огоньки судьбы”) ярко чувствуется писательский стиль. Слова весомые, мысли с глубоким содержанием. В нем образно отражается сегодняшний внешний вид Аральского моря, города Муйнака. Заслуживает большого внимания малая тема материала “фантастическая вершина фантастического рассказа”. Там говорится о том, что “В конце прошлого века был опубликован рассказ Я.Ажимова “Во сне я оказался мэром”. Руководитель района, который не мог отличить рассказ от действительности звонит в редакцию и шумит, о том что они их критикуют. Он говорит, что район никогда не будет таким каким вы его изображаете. Объяснения не помогают. Настаивает на том, чтобы они попросили прощения.

Но не в этом заключается основной конфликт статьи. В нем говорилось о том, что рассматривалось в статье это сегодняшнее состояние Муйнака. Это тоже передается писательским языком: “Вот, писатели не простой народ, они люди необычные, у них есть “божий дар”. Сегодня вот эти мечты Якыпбая ага, его сны исполняются, -говорит Бийсенбай Бекмуратов, резко вставая с места, где лежал...” [5].

В статье сравнивается прежнее и сегодняшнее состояние Муйнакского района. Этими сравнениями и силой влияния статьи не удивит читателей газеты. То есть читатель будет

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скупать, читая статью. Считаем, что это в свою очередь, оказало плохое влияние авторскому мастерству.

В последнее время в газете публикуются больше статей, которые были написаны читателями газеты, то есть, видно, что больше статей, которые написаны самими детьми. А корреспонденты газеты поставили в правильное русло организацию специальных клубных работ и публицистических статей. Вместе с тем подготовка информационных материалов попала на долю работников редакции. Это тоже доказывает, что журналисты, работающие в редакции газеты стараются работать по-новому. Конечно, хороши статьи, с высокой художественностью, написанные в рамках журналистских жанров. Но, здесь нельзя не вспомнить про возраст детей. Детям не очень нравятся назидательные статьи и статьи, написанные с большой художественностью. Вместо этого для них интересны то, что написаны ровесниками, то что пережили они. Поэтому, в газете “Жеткиншек” в последнее время уменьшилось количество статей, подготовленных работниками редакции, их место больше занимают клубы, это конечно же, хорошее явление. Здесь тоже чувствуется стиль журналиста. Конечно, это бросается в глаза не в статье, а в подготовке клуба, в направлении работы клуба в нужное русло.

Заключение.

Проанализировав, считаем необходимым привести следующие выводы:

1. Формирование идеологического иммунитета у детей и подростков через воспитания в духе общечеловеческих и национальных ценностей, изучения национальных традиции и обычаев.
2. Большая роль в развитии талантов детей в написании маленьких статей, прозошедшего случая, стихов, добавляют вдохновение их таланту.
3. Новые современные технологии, появившиеся сегодня в мире, опубликованные материалы об их положительных и

отрицательных влияниях послужили для развития сознания и уровня мышления детей. Будет уместно расширить объем этих материалов, передавать информацию о различных технологиях.

4. Наблюдается, что в детской и подростковой прессе Каракалпакстана очень много проблем, которые ждут своего решения. Например, в газете “Жеткиншек” тема воспитания освещается односторонне. Особенно, очень много рассказывается об отрицательном влиянии новых технологии, а об их правильном использовании, как можно ими пользоваться, более широкое их объяснение не поставлена в правильное русло.

5. В газете “Жеткиншек” на сегодняшний день большое место занимают информационные жанры. Также, очень много произведений, относящихся к литературным жанрам. Хотя мало статей в аналитическом жанре, но поднятым в них проблемам можно дать положительную оценку. Но большинство из них составляют обзор писем, отрицательные стороны современных технологий, чтение книг.

6. Единственная цель детских и подростковых изданий на сегодняшний день в том, что они должны глубоко изучить взгляды детей, их интересы.

7. Увеличивается количество любителей клубов в детских изданиях Каракалпакстана. Но этот фактор не влияет на тираж газеты. Поэтому, в будущем считаем уместным газете “Жеткиншек” установить непосредственную связь (через канал телеграмм) или через газету.

8. В газете почти не встречается жанр беседы-интервью. Для входа во внутренний мир детей, для понимания их мыслей и взглядов проведение беседы или блиц опроса должна быть приоритетным в определении перспективных направлений.

9. Требуется систематическое ведение сайтов традиционных каждодневных изданий. А это, в свою очередь, приведет к поддержанию связи газеты со своей аудиторией и благоприятно влияет расширению читательской аудитории.

References:

1. Marziyayev, J.K., & Qudaybergenov, M. A. (2020). Children's press in Karakalpakstan: problems and solutions. *International Scientific Journal (ISJ) Theoretical & Applied Science*, Philadelphia, USA.
2. Kamalova, D.E. (2019). *Baspasso'zde novellanin' janrlig o'zgesheliklari* (Janrovie osobennosti novelli v presse) [Genre features of the novel in print] Materiali respublikanskoy

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IBI (India) = 4.260
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- nauchno-prakticheskoy konferentsii. – Nukus. Ilim.
3. Tertichnyy, A.A. (2020). *Janri periodicheskoy pechati*. Uchebnoe posobie. Moscow: Aspekt Press.
 4. Marziyaev, J.K. (2012). Rol i mesto publitsisticheskix janrov v sovremennoy karakalpakskoy pechati [The role and place of journalistic genres in the modern Karakalpak press]. *Vestnik Chelyabinskogo gosudarstvennogo universiteta* [Chelyabinsk State University Bulletin], № 6 (260).
 5. (2019). Newspaper «Jetkinshek», №32 (5374) 8-avgust.
 6. Atajanov, H.A., Marziyaev, J.K., & Qlichov, N.R. (2018). *Baspasso'z tipologiyasi*. [Typology of printing]. (p.80). Tashkent: Uzbekistan.
 7. (1992). Magazine «Gumsha», №2.
 8. (2019). *Interpretation of environmental problems in the karakalpak press in the years of independence*. Dissertation abstract for the doctor of philosophy (phd) in philological sciences. – Tashkent.
 9. (2022). *Janr novelli v karakalpakskoy literature* [The genre of the novel in Karakalpak literature] Dissertation abstract for the doctor of philosophy (phd) in philological sciences. – Nukus.
 10. Yunusov, M.A. (2020). *Razvitie detskoy jurnalistiki v Uzbekistane v period nezavisimosti: dostijeniya, problemu i resheniya (na primere pechatnix izdaniy)*. Dissertation abstract for the doctor of philosophy (phd) in philological sciences. – Tashkent.

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Article



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RELIGIOUS REMNANTS OF THE KARAKALPAK

Abstract: This article discusses the religious beliefs and traditions that have been preserved among the Karakalpak people since ancient times.

Key words: myth, legend, cult, beliefs, Zoroastrianism, Karakalpaks, image, plot, Earth, spirit, sky, embroidery, jewelry.

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РЕЛИГИОЗНЫЕ ПЕРЕЖИТКИ КАРАКАЛПАКОВ

Аннотация: В данной статье рассматриваются религиозные верования и традиции, сохранившиеся у каракалпакского народа с древнейших времен.

Ключевые слова: миф, легенда, культ, верования, зороастризм, каракалпаки, образ, сюжет, Земля, дух, небо, вышивка, украшения.

Введение

Каракалпаки как и все народы издавна принимали небо как живое существо. Поэтому, все действия, происходящие в нем, объяснялись через чудо-человека или человекоподобными лицами. Например, каракалпаки называют гром и грозу Гульдирмама, то есть «гремящая бабушка». По представлению предков она будто едет за водой над облаками на своей арбе, запряженной быками или лошадьми. Когда она гонит арбу, под её колесами грохочут облака. А на обратном пути бочки, наполненные водой, разливаются, и начинается дождь. Здесь прослеживаются реликты древних верований народов низовьев Амударьи, в частности каракалпаков. Например, по данным Х.Есбергенова можно проследить почитание некоторых животных, в частности лягушки, относилось к воззрениям, связанным с водной стихией. С ней связывали грозу, дождь.

Считалось, что если лягушки лежат ногами вверх, то будет дождь [1, с.155]. Имеется среди каракалпаков легенда, что лягушка раньше была

человеком, больше всего она изображается в образе женщин. Видимо одной из форм проявления этих представлений является изображение в обрядовой одежде, украшение женщин каракалпаков, истоки которых нас ведут к культуре плодородия.

Однако следует отметить, что, в одежде, украшении с изображением лягушки, по данным некоторых авторов прослеживается половозрастное деление и этническое различие каракалпаков. «Условные изображения лягушки в каракалпакском орнаменте (бака нагыс) – пишет Есбергенов. Х. – бытовали ещё в начале XX в. – вышивки женской одежды, например на воротнике накидки (жипек жегде), на нагруднике и на подоле (кызыл киймешек), который носили молодухи и женщины зрелого возраста.

Способные ещё к деторождению девушки на одевавшемся поверх платья нагруднике (өңдирше) носили фигурные серебряные ювелирные украшения в виде лягушки и украшение «бака түйме». Это характеризует принцип возрастных

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отличий в вышивке и украшениях женской одежды каракалпаков ... Орнаменты и украшения в виде лягушки были характерны для этнических групп каракалпаков «Он төрт урыў», а не для всех каракалпаков.

Реликты культа лягушки прослеживались в прошлом и у таджиков, туркмен, алтайцев, лезгин, марийцев, чувашей. Зооморфные орнаменты, изображающие лягушку, были излюбленными элементами украшений и вышивки у обских угров. Видимо, у всех этих народов, истоки сакрализации лягушки сходны [1, с. 156].

Образ старухи, связанный с небом, широко распространён у сибирских тюрков. Например, в долгинском мифе, записанным А.А. Поповым, говорится: «В одном месте им (шаманам – гусям А.А) пришлось пролетать через отверстие в небе. Около этого отверстия сидела старуха, увидела пролетающих гусей...» «Вот я умираю из-за того, - говорит один из шаманов – гусей,- что плохо подумал о старухе, что сидит около небесного отверстия. А она оказывается, хозяйка Вселенной. Пусть же после нас ни один шаман не прилетает в эту сторону: хозяйке вселенной это не угодно».

Близкие по значению представления отмечены так же у нивхов. По их воззрениям, на краю нашей и другой вселенной, там, где поднимается и спускается край неба, сидит старуха у самых краев земли и неба [2,с.21]. Это старуха управляет погодой. Её каждое действие связано с явлениями природы.

Если она сидит дома – значит тихая погода, если выходит из дома – дует ветер, если мочится – идет дождь. Ещё некоторые селькупы считали, что дым от очага небесной старухи и есть Млечный путь – ночная радуга, задерживающая все злое, приходящее ночью с темнотой. Этот дым преграждает злу дорогу [3, с.109].

Некоторые исследователи, обратив внимание на мифический образ старухи, пришли к мнению, что они созвучны с образом хозяйки Вселенной. Каракалпакский же материал о небесной старухе дополняет и подтверждает мысли авторов.

Со старухой связан так же миф о радуге. Каракалпаки издавна называли радугу «кемпир курсак» (Бабий живот). Но, к сожалению, причина такого названия тоже относится к небесной старухе. Однако, есть кое-какие дошедшие до нас рассказы о том, что «на небе схватывается черный дракон с белым драконом (сопоставьте, черное облако, белое облако). От этой схватки двух чудовищ грохочет гром, сверкают молнии.

Когда белый дракон побеждает черного дракона, от него прольётся кровь, которая падает на землю дождём. А радуга после дождя – отрезанный живот умершего черного дракона» [1,с.1]. Здесь тоже мы прикасались к животу, хотя это живот не мифического человека, а дракона. Это сходство заставляет нас думать о единстве

образов дракона и старухи, претерпевших многовековые изменения.

Есть другое, более позднее название Радуги «Хазрети Алидин кылышы» или «Хасан – Хусенин окжайы» (Меч Алия или Лук Хасана-Хусена). Так называют её и в Иране, где основным героем часто был Али – зять Мухаммеда – пророка. Но несмотря на его историчность в некоторых народных верованиях иранцев Али выступает прямо как и открыватель источников. Персы тоже радугу часто называют Луком Али, а в средневековых стихах молния отождествлялась с Зульфикаром, волшебным мечом Али [4,с.33].

Распространение ислама в Средней Азии оказало воздействие и на духовную жизнь народа.

Для того, чтобы вести агитационную работу, пришлось «модернизировать» старые мифические сюжеты в пользу ислама. Таким образом, некоторые народные рассказы об исламе можно считать как одно из многочисленных и весьма трансформированных воплощений древнего мифа.

Когда весенний дождь идет, старики говорят, «это не дождь, а луч всевышнего, он посылает нам эти лучи для того, чтобы позеленели травы, распускались листья на деревьях, словом, просыпалась земля». Конечно, не все дожди им доступны. Особенно осенний дождь вызывал большое недовольство у людей.

Поэтому они выдумывали разные игровые действия, чтобы спугнуть или стеснить дождь. Дошёл до нас такой вариант игры: Во время дождя, чтобы остановить неблагоприятный дождь, выйдут на улицу мальчишки-первенцы. Они снимают штаны и, склонив головы вниз, задницу вверх, говорят: «не лейся дождь, не лейся, я первенец мамы, не лейся». Так повторяют несколько раз. Ново здесь то, что люди принимали дождь живым существом, умеющим дарить природе жизнь или стесняющим, угрожающим подобно человеку. Ещё хочется отметить другую сторону этой игры.

В основе игры принимается первенец и возникает вопрос: Почему дождь «стесняется» от первенца и «перестанет лить!». Чувствуется, что за этим словом лежит какое-то пережиточное явление, требующее специального изучения.

До сих пор родители на первенцев смотрят с особой теплотой. Раньше у каракалпаков дедушка и бабушка первенца своего сына воспитывали сами. Не разрешали им (родителям внука) ругать его или наказывать.

Первенцы своего отца называли братом (ажаға), а мать тетей (жеңге), и родители не могли называть своего сына по имени, в знак уважения старших. Внука ласкали такими словами «Это дар самого творца» (Жаратқанның бергени).

Наверное, такие высокомерные понятия о первенце сложилось у наших предков в знак

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признания «способностей» их оказывать влияние на погоду. В лице первенца представляли облик перерождения духа предков. Одним из дальних спутников наших предков является ветер.

Они посвистывали и ждали его. Особенно во время сбора урожая, чтобы отделить от оболочки зерно, очень был надобен ветер, и тогда они надеялись на собственное дыхание или говорили: «Пусть колеблется конец камыша, пусть сверкает конец кугы, Айдар, Айдар,...» (Қамыс басы қалтырасын, жекен басы жалтырасын, Айдар, Айдар) [5,с.273]. «По легендам каракалпаков Айдар, - дух ветра. Если нуждался в ветре земледелец, очищавший зерно от соломы, или рыбака парусной лодки, они призывали на помощь Айдара» [6,с.195].

Вызов ветра собственным свистом является распространённым методом у многих народов. Например, Дж.Фрезер сообщает: «Туземцы с острова Бибили близ Новой Гвинеи славятся способностью вызывать ветер, громко свистели, а для прекращения кричали «грю- грю- грю» [7,с.275].

Причину явления ветра при свистке наши старожилы так объясняли: «Когда – то ветер потерял своего единственного сына Свистка и с тех пор неустанно ищет его бродя по земле, где услышит его голос, туда и направляется непременно. Но никак не встретится с ним» [1,с.1].

Одним из природных явлений, издавна оставшихся в памяти людей, как злое существо, является вихрь. По представлению предков каракалпаков вихрь-сборище джиннов (жинниц мәканы), поднимает его злой дух, причиняющий вред человеку.

Поэтому существовали способы избегания или отпугивания злого духа вихря. Они таковы: Одни, увидев его, плюют в сторону вихря, другие отрезают его красным прутом или взмахивают ножом и прокликают: «Пусть на твоём пути растёт дикий лук!» (Жольыңа жууа көгерсин!).

Мифические представления каракалпаков о земле почти не сохранились. Но имеется ряд аналогичных сюжетов о структуре земли, как и у некоторых соседних народностей. По старинным представлениям каракалпаков, Земля, на которой люди живут, плоская, круглая как тубетейка, имеются возвышенности и низменности. Её край соприкасается с небом. Землю держит на рогах огромный бык, быка держит огромная рыба, которая плывет на воде, Земля неподвижна, Солнце «ходит» вокруг неё. Она окружена водой. Под землей ещё имеется семь земель и.т.д.

Также о сотворении Земли существует такая легенда: Сначала была вода, на воде жили утки. Однажды они захотели в дальние страны. Прилетели через семь дней. Принесли с собой пыльные травы и построили гнездо, на которой впоследствии образовали Землю. Архаический

тип мифологии представляет собой возникновение тех или иных элементов природы или культуры, как их простую «находку» демиургами в готовом или полуготовом состоянии. Но эту «находку» обычно приходится переносить из одного места в другое...[8,с.167].

В каракалпакских религиозных мотивах создателями или держателями её являются звери, птицы. Позже, сама земля приобрела в понятии людей религиозный характер, следы которого чувствуются и сейчас.

Каракалпаки издавна почитали Землю. К ней относились как к матери. Она кормила, поила их и их скот. Поэтому её называют «Жер Ана» (Земля-мать). Поклонялись Земле. Приносили жертвоприношения. Только имеются некоторые отголоски этих обрядов. Например: «Киндик қаны тамған жер» (букв. Место, где была обрезана пуповина). Это слова употребляется, когда речь идет о Родине определенного человека, называя её священным местом.

К жертвоприношению земли можно отнести обряды праздника Нового года так называемое «Наўрыз». Во время праздника собираются все жители определенной местности на одно место. Приносят в жертвоприношение крупный рогатый скот. Кроме того женщины приносят приготовленную пищу из дома.

Люди сами едят эти жертвы, после этого один из аксакалов произносит патию такого содержания: «Малымызда сүт болсын, жеримизде кут болсын! Таза айларға, таза жылларға жеткере берсин! Әўмийин!» (Пусть будет у наших коров обильное молоко, а на нашей земле – благополучие. Пусть доставляют нас к новым месяцам, к новым годам, аминь!). Такие обряды совершались в весенний период, когда у всевышнего испрашивали плодородие Земли, обилие урожая.

Одно из стихийных явлений природы – землетрясение понимали наши предки как зло Земли, оказавшее нечистым людям. Будто злится от неблагоприятного отношения к ней и глотает того, кто обидел её. Поэтому люди уважали её. Появились отдельные почитаемые места.

В наши дни мы часто слышим речевые обороты, связанные с землей такого содержания: «Киндигиң жерден бе?» (Твоя пуповина из земли, что ли?) – ироническое обращение к самонадеянному человеку. Или разгневанные родители ругают детей: «Сени жер жутты ма, неге кешиктиң?!» (Тебя земля проглотила что ли, почему задержался?) и.т.д. Все эти изречения происходили непременно от ранних отношений людей к Земле.

Одним из самых почитаемых являлся культ природы огня. Про огонь тоже имеются мифологические сюжеты, охватывающие ранние взгляды наших предков. Однако, с огромным

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расстоянием времени рассеялись некоторые пережитки, связанные с огнем. Каракалпаки как и все другие народы в прошлом почитали Огонь, ставший одной из первых необходимостей их повседневной жизни. Относились к нему с уважением.

Например, запрещалось плевать на огонь или наливать воду. Ступать на место огня. Слова «ошак», где горел огонь, дало понятие «семейное собрание» (семейство). Например: «Ошак басы аман болсын!» (букв. Кто сидит вокруг этого очага, пусть будет живым и здоровым). Самое жесточайшее проклятие у каракалпаков тоже связано с огнем: «Отың өшшин сениң!» или «Отың өшкир!» (букв. Пусть погаснет твой огонь!), значение которого можно выяснить так: пусть не будет ваша семья в живых, пусть ваш род не будет на белом свете. Есть ещё поговорки об огне. Один из них гласит: «Отты козғам – өширесен..» (букв. Огня не трогай, погаснет). На самом деле нельзя было ворошить и трогать костер железными острыми предметами из опасения поранить хозяйку огня.

Также предки видели у огня очищающие средства: Когда ложили ребенка в колыбель очищали огнем. Они полагали, что в колыбель попадут злые духи, которые впоследствии принесут вред ребенку. Чтобы избавиться от этих «злых духов» окуривали огнем. Огонь использовали при свадебных церемониях. Когда невестка заходила в дом: она прыгала через костер, зажженный у порога, чтобы избавиться от прежних недугов.

Прыгание через огонь у порога значило для невестки начало новой семейной жизни. По данным этнографических исследований предполагалось, что костры способствуют браку и обеспечивают потомство бездетным супругам. Это благоприятное воздействие является не прямым следствием того, сам огонь обладает ускоряющей и оплодотворяющей силой, а происходит из его способности уничтожить препятствия, которые злые духи чинят супружеской паре. Например: марокканцы считают, что бездетные пары могут занять потомство, перепрыгнув через костер в летнее солнцестояние.

В Ирландии существует поверье, что девушка, которая в день святого Иоанна трижды прыгнув через костер, вскоре выйдет замуж и станет многодетной матерью. Во Фландрии женщины прыгают через костры, чтобы обеспечить себе легкие роды [1, с.717]. Словом, понятия о костре направлены на благополучие семейной жизни.

Окуривали дымом огня больных детей и старших, помещенные, где они лежали. Средствами лечения огнем пользовались порханы (шаманы).

Также окуривали домашних животных, когда они болели.

Огонь, признак и сейчас, как символ света и тепла. Все эти примеры свидетельствуют, что некоторые религиозные обряды и верования, где проявляются они, связаны с учением зороастризма и с культом огня.

Каракалпаки в своих ранних представлениях утверждают, что когда-то затопилась земля («Топан суўы»), уничтожился род человеческий и вообще все живое. Остался живым пророк Нух вместе с семьей, который впоследствии стал праотцом человечества.

Потоп и связанные с ними мифы известны во многих местах земного шара. Причину этого исследователи объясняют в таком порядке: «... Она затопила только долину Тигра и Евфрата, расположенную между горами и пустыней... Для тех, кто здесь жил, долина была целым миром... Поэтому нет ничего удивительного в том, что они увидели в этом бедствии божью кару, согрешившему поколению как описали его в религиозной поэме. И если при этом какому-то семейству удалось на лодке спастись от наводнившего неизменность потопа, естественно, начали воспевать как легендарного героя... В основе сказания о потопе лежит действительное событие- наводнение на юге Месопотамии».

Рассказ о нём передавался из поколения в поколение: он неизбежно должен был включен в общую систему мировоззрения древних народов, в их мифологическое объяснение мира. Менялись отдельные эпизоды, менялось осмысление мифа [9, с.10-11].

Тут мы должны отметить, что наши предки тоже жили в долинах междуречья Окса и Яксарта. Обычно, несколько раз в год подвергались наводнению. Эти аналогичные климатические условия, природные сходства возможно помогли распространению сюжета о потопе среди каракалпаков.

Недаром у нас говорят «От бәлесинен сақла, суў бәлесинен сақла» (Сохрани нас от бедствия огня, от бедствия воды!).

Вода считалась живым существом женского начала. Она олицетворялась в образе матерей. Крупные реки признавались матерью своих притоков, матерью проживающих на берегах людей. Видимо, такое отношение дало одной из сибирских рек название «Ене-сай» (Енисей) (Мать-река).

К сожалению, мы не знаем древние формулировки, связанные с водой. Мы можем судить только по обрядам или устным сказаниям.

Информаторы нам сообщили, что вода в реке ночью отдыхает. Нельзя воду брать ночью. Иначе разбудишь её. Если необходимо надо попросить:

Суў Сулейман, Сулейман,

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Сизлерден мәдет сорайман,
Үйге көк атлы, көк тонлы,
Мийман келди.
Сизлерден бир кабак суў сорайман.

(букв. Вода Сулеймана, прощу Вашей милости, Ко мне приехал гость на голубой лошади и в голубой одежде, прощу дать мне одну горлянку воды). После чего можно брать воду. Здесь важно отметить размышление Снесарева Г.П. Он подчеркивал: «Покровителем сети каналов южнее Ханки считали святого Сулеймане (мазар вблизи Мадира). Когда в каналах мало воды, у его могилы устраивались моления. Существовала пословица «Суў тилесең Сулайманнан тиле» (Если просишь воду – проси у Сулеймана!)» [10,с.234]. В воде живут русалки – «суў перилер», Они покажутся в виде голыи женщины с длинными волосами, те охраняют воды от злых духов. Поэтому нельзя ходить ночью по берегам реки и озера, особенно беременным женщинам и детям. Русалки могут им причинить вред или позвать к себе в подводное царство.

Башкирские народные представления о воде совпадают с нашими: «Обычно днем духи воды отдыхают, а ночью бодрствуют, выходят на берег и развлекаются. Поэтому у башкир запрещалось без особой надобности ходить ночью за водой, шуметь у воды и нарушать покой водяных духов. Считалось, что духи могут наказать нарушителя их покоя [11,с.263].

Про утопленных людей говорили: «Суў пери әкетти» (унесла Русалка)». Такое представление о воде соответствует другим народным понятиям. Например Грачева Г.Н., изучая традиционные мировоззрения охотников Нганасанов пишет: ... Разговор с водой или землей шел так же, как разговор с реально существующим человеком. «Вода – мать – нго! Где ты ходишь? Рыбу давай». Устойчивой формулы обращения не существовало...

В отдаленное от нас время воде приносили и человеческие жертвы. При разговорах на эту тему старики не отрицали такую возможность, но ссылаясь на то, что «во время весеннего аргиша (переправы через реки к местам летних стоянок) кто-то из людей да обязательно утонет, все равно к воде – нго пойдет» [12,с.37].

Возможно, когда-то в древности бытовал обычай приносить человека в жертву воде для того, чтобы река не разбушевала или наоборот, вода не изменилась. Такие детали, которые мы привели выше, может быть поздняя трансформация забытого обряда жертвоприношения человека воде. Ведь по этнографической литературе известно, что индейцы (не только индейцы) в прошлом приносили в нарядном платье девушку в жертву Нилу, чтобы отметить бракосочетание Нила... То

есть речь шла о магическом обряде, предназначенном вызвать рост посевов [1,с.411].

В этнографических материалах каракалпаков, так же фольклорных, не много сохранились подобные мифологические сюжеты, ярко отражающие народные представления о воде. Но известно то, что вода является с давних времен одним из главных источников их существования. Поэтому мы можем представить себе как наши предки почитали воду индивидуально, так и группами, семьями, родом.

Среди каракалпаков «Была распространена вера в помощь мазаров святых от маловодья и засухи: туда приводили крупный рогатый скот, - кан шашыў-жертвоприношение воде. Во время маловодья или паводка Амударьи, а также при открытии нового канала или в Амударью. Каракалпаки покровителями воды, водной стихии и ветра считали Айдар бабу и Убби. Им посвящались вышеуказанные жертвоприношения» [6,с.187]. Точно такой же обряд совершали киргизы. По сообщению Баялиева Т.Д. Киргизы во время наводнения отправлялись к тому месту, откуда началось наводнение и резали там жертвенных животных. Причем стремились, чтобы кровь их смешалась с водой, а в отдельных случаях и само животное бросали в воду [13,с.39-40].

Сейчас в семейных традиционных или национальных обрядах обожествление воды – где можно чувствовать некоторые реликты пережиточных религиозных явлений о воде.

Таким образом, до наших дней сохранились некоторые мифологические представления о природных явлениях, откуда и истоки религиозных пережитков.

Наши предки воспринимали мир и все его части как живые существа и поклонялись им, приносили жертвы. Эти первоначальные религиозные верования связаны прежде всего с их ощущением окружающей среды по своему, а так же с отношением к природным явлениям. Многовековой своеобразный контакт между человеком и природой дал реальную возможность для живучести религиозных пережитков.

Говоря о древних верованиях тюрколога Л.Н.Гумилев делает вывод, что он далек от мыслей считать их первобытными. Сами тюрки сложились из разных племен. Лишь в V-VI в.в. и верование их, относящееся к этой эпохе, были столь же развившимся, как и прочие религиозные системы современные им [14, с.77].

Пока люди стали понимать природу как самостоятельное явления, пришлось пройти через многие преграды. Естественная объективная причина сохранности космогонических и природных представлений у людей - это не только влияние ислама, а реликты доисламских традиций. Распространители ислама были

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вынуждены пропагандировать доисламские верования, в свою пользу, придав им мусульманскую окраску.

Мусульманское духовенство всегда старалось закрепить исламские обычаи и традиции в общественной жизни и в быту каждого народа. Оно нетерпимо относилось к подлинно народным традициям, противоречащим духу, относилось так как, кроме господствующих традиций религиозного характера, выражавших интересы эксплуататорского класса, существовали многие традиции и обычаи, выработанные всей жизнью самого трудового народа.

Многие древние мифологические образы были заменены исламскими святыми-покровителями. Поэтому наши нынешние верующие не смогут отделить ислам от их доисламских религиозных верований, хотя некоторые из них сохраняют в устах мифы и легенды о доисламских религиозных обычаях и.т.д. Известно, что в силу объективных условий ислам проник глубоко в сознание населения. В то же время можно фиксировать сравнительную устойчивость анимистических, магических и прочих, явно доисламских по генезису представлений.

References:

1. Frezer, Dj. (1980). *Zolotaya vetv. Issledovaniya magii I religii* (p. 832). Moskva: Politizdat.
2. Anisimov, A.F. (1959). *Kosmologicheskie predstavleniya narodov Severa* (p.106). Moskva-Leningrad: Izdatelstvo AN SSSR.
3. Alekseenko, E.A. (1976). *Predstavleniya ketov o mire. Priroda I chelovek v predstavleniyax narodov Sibiri I Severa* (p. 82). – Leningrad: Nauka.
4. Antonov, E.V., & Chvir, L.A (1983). *Tadjikskie vesennie igri I obryadi I indoiranskaya mifologiya, sb. Folklor I istoricheskaya etnografiya* (p. 33). – Moskva: Nauka.
5. (1980). *Qaraqalpaq folklori*. Tom V. (p. 273) – Nokis: Qaraqalpaqstan.
6. (1980). *Etnografiya karakalpakov*. (p. 205). – Tashkent: Fan.
7. Parnov, E.I. (1980). *Bogi Lotosa: kriticheskie zametki o mifax, verovaniyax I mistike Vostoka* (p. 239). – Moskva-Leningrad: Politizdat.
8. Meletinskiy, E.M. (1968). *Eddi I rannie formi eposa*. (p.364). – Moskva: Nauka.
9. Svetsitskaya, I.S. (1975). *Mifi I deystvitel'nost*. (p.64). – Moskva: Znanie.
10. Snarev, G.P. (1969). *Relikti do musul'manskix verovaniyax i obryadov u uzbekov Xorezma*. (p.338). – Moskva: Nauka.
11. Sagitov, M.M. (1985). *Kult void v bashkirskom narodnom tvorchestve. Voprosi Sovetskoy tyurkologii. Tezis dokladov i soobshenii*. (p.360). – Ashxabad.
12. Gracheva, G.N. (1983). *Traditsionnoe mirovozzrenie oxotnikov Taymira*. (p.176). – Leningrad: Nauka.
13. Bayaliev, T.D. (1972). *Doislamskie verovaniya i ix perejtki kirgizov*. (p.171). – Frunze: Ilim.
14. Gumilev, L.N. (1967). *Drevnie tyurki*. (p.502). – Moskva: Nauka.

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Article



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DYNAMIC STRESS-STRAIN STATE OF TWO-LAYER VISCOELASTIC CYLINDERS UNDER KINEMATIC EXCITATION

Abstract: The paper considers the dynamic stress-strain state of two-layer viscoelastic cylinders under kinematic excitation. The relationship between stresses and strains satisfy the Boltzmann-Voltaire integral relation. The problem is reduced to a plane problem of the theory of viscoelasticity. The problem is solved by the Green-Lamb potential methods. The resulting integro-differential equations of partial derivatives are solved using the special Bessel and Hankel functions of the 1st and 2nd kind of the n th order. The solution is expressed in terms of special functions of the complex argument. To determine the integral constants, a system of algebraic equations with complex coefficients is obtained. Numerical solutions are obtained and an analysis is made.

Key words: shells, filler, viscoelastic material, dynamic load, stress-strain state.

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ДИНАМИЧЕСКИ НАПРЯЖЕННО- ДЕФОРМИРОВАННЫЕ СОСТОЯНИЯ ДВУХСЛОЙНЫХ ВЯЗКОУПРУГИХ ЦИЛИНДРОВ ПРИ КИНЕМАТИЧЕСКОМ ВОЗБУЖДЕНИИ

Аннотация: В работе рассматриваются динамические напряженно-деформированные состояния двухслойных вязкоупругих цилиндров при кинематическом возбуждении. Связь между напряжениями и деформациями удовлетворяют интегральному соотношению Больцмана- Вольтера. Задача сводится к плоской задаче теории вязкой упругости. Поставленная задача решается методом потенциала Грин - Лэмба. Полученные интегро-дифференциальные уравнения в частных производных решаются с помощью специальных функции Бесселя и Ханкеля 1-го и 2-го рода n -го порядка. Решения выражаются через специальные функции комплексного аргумента. Для определения интегральных постоянных получена система алгебраических уравнений с комплексными коэффициентами. Получены численные решения и сделан анализ.

Ключевые слова: оболочка, наполнитель, вязкоупругий материал, динамическая нагрузка, напряженно-деформированное состояние.

Введение

Современные измерительные приборы и точное технологическое оборудование часто нуждаются в эффективной защите от вибраций [1,2]. Кроме того, в настоящее время существенно возросла необходимость в активной защите от вибраций научной аппаратуры на космических аппаратах, самолетах и других транспортных

средствах [3,4]. Методы защиты от вибраций электронной аппаратуры (ЭА), устанавливаемой на подвижных объектах, подразделяются на пассивные, обеспечивающие ветрозащиту РЭС без дополнительных источников энергии и активные, работающие только при дополнительном внешнем источнике энергии [5,6]. Активные ветрозащитные устройства имеют значительно большую

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стоимость, массу, размеры и сравнительно низкую надежность. Поэтому для защиты ЭА от вибраций наиболее часто применяются пассивные методы ветрозащиты.

Целью работы является создание методики и алгоритма для проведения вычислительных экспериментов, позволяющих на ранних стадиях проектирования моделировать, обеспечить оптимальные колебания объекта (прибора) в резонансных областях спектров частот при внешних технологических и эксплуатационных воздействиях. Теоретические исследования проводились с использованием пакетов программ MAPLE – 18. Актуальность исследования, напряженного –деформированного состояния конструкций, находящихся под действием динамических нагрузок с учетом вязкоупругих свойств материала, обусловлена широким применением их в современном машиностроении [7-9]. Характерным примером таких конструкций является вязкоупругий цилиндр с центральным распределенным каналом (цилиндрическими или с нетривиальной геометрией). Корпус изготавливается из материалов, имеющих высокую удельную прочность. В зависимости от назначения ракеты, ее размеров и действующих нагрузок применяются композитные материалы.

Расчету напряженно-деформированного состояния, упругой устойчивости и динамических процессов тонкостенных оболочек и содержащегося в них упругого и вязкоупругого заполнителя посвящены работы [10-12]. Применяются аналитические и численные методы интегрирования уравнений колебаний системы. При этом из большого разнообразия форм внешнего цилиндра (оболочек), заполнителя, их механических свойств, действующих нагрузок, и т.д. выбираются параметры, характерные для твердотопливных двигателей. В данной статье рассматриваются вопросы расчета вязкоупругих оболочек, содержащих вязкоупругие массивы (заполнитель). Особый интерес представляет колебания в плоскости $r\varphi$, не зависящие от продольной координаты z , которые называются плоскими изгибными колебаниями.

Постановка задачи и методы решения.

Рассматривается динамически напряженно-деформированное состояние вязкоупругого цилиндрического тела, с приложенным внешним кинематическим воздействием. Предполагается, что дано в цилиндрических координатах (r, φ, z) цилиндрическое тело с радиусом $r=a$ и b (соответственно внутренний и внешний радиус). Связь между напряжениями и деформацией удовлетворяет следующей интегральной зависимости [8]:

$$\sigma_{ij} = \tilde{\lambda}\theta\delta_{ij} + 2\tilde{\mu}\hat{\varepsilon}_{ij},$$

$$\tilde{\lambda} f(t) = \lambda_0 \left[f(t) - \int_0^t R_\lambda(t-\tau)f(\tau)d\tau \right],$$

$$\tilde{\mu} f(t) = \mu_0 \left[f(t) - \int_0^t R_\mu(t-\tau)f(\tau)d\tau \right].$$

Здесь $\hat{\varepsilon}_{ij}$ - компоненты тензора деформации; θ - объёмная деформация; $\tilde{\lambda}$ и $\tilde{\mu}$ - операторный модуль упругости; δ_{ij} - символ Кронекера; $f(t)$ – произвольная функция времени; $R_{Ek}(t-\tau)$ – релаксация ядра, λ_0 и μ_0 - мгновенные модули упругости. Уравнение малых колебаний цилиндра в случае плоского деформируемого состояния (радиальную u_r и тангенциальную u_φ компоненты считаем не зависящими от осевой координаты z) имеет следующий вид [9]:

$$\tilde{\mu}\nabla^2 u_r + \tilde{\mu}/(1-2\nu)\frac{\partial\theta}{\partial r} - \tilde{\mu}\frac{u_r}{r^2} + \tilde{\mu}\frac{2}{r^2}\frac{\partial u_\varphi}{\partial\varphi} - \rho\frac{\partial^2 u_r}{\partial t^2} = 0,$$

$$\tilde{\mu}\nabla^2 u_\varphi + \tilde{\mu}/(1-2\nu)\frac{\partial\theta}{\partial\varphi} - \tilde{\mu}\frac{u_\varphi}{r^2} + \tilde{\mu}\frac{2}{r^2}\frac{\partial u_r}{\partial\varphi} - \rho\frac{\partial^2 u_\varphi}{\partial t^2} = 0.$$

Здесь

$$\nabla^2 = \frac{1}{r}\frac{\partial}{\partial r}\left(r\frac{\partial}{\partial r}\right) + \frac{1}{r^2}\frac{\partial^2}{\partial\varphi^2},$$

$$\theta = \frac{1}{r}\frac{\partial}{\partial r}(ru_r) + \frac{1}{r}\frac{\partial u_\varphi}{\partial\varphi}.$$

На границе $r=b$ задана внешняя гармоническая кинематическая нагрузка в виде

$$u_r(b, \varphi, t) = U_R \cos(\varphi) e^{i\nu\omega t}$$

$$u_\varphi(b, \varphi, t) = -U_R \sin(\varphi) e^{i\nu\omega t},$$

где U_R - амплитуда перемещений внешней поверхности цилиндра, $\nu\omega$ - частота внешних нагрузок. На внутренней поверхности $r=a$ ставятся условия свободные от усилий

$$\sigma_{rr} = \sigma_{r\varphi} = 0$$

Интегродифференциальное уравнение (2) решается в потенциальных перемещениях ϕ (потенциал продольных волн) и ψ (потенциал поперечных волн), который удовлетворяет следующим интегродифференциальным уравнениям в частных производных

$$\nabla^2 \phi - \int_{-\infty}^t R_E(t-\tau)\nabla^2 \phi d\tau = \frac{1}{C_{p0}^2} \frac{\partial^2 \phi}{\partial t^2},$$

$$\nabla^2 \bar{\psi} - \int_{-\infty}^t R_\mu(t-\tau)\nabla^2 \bar{\psi} d\tau = \frac{1}{C_{s0}^2} \frac{\partial^2 \bar{\psi}}{\partial t^2},$$

где $\bar{\psi}(0,0,\psi)$ - векторная величина. Тогда связь между перемещениями цилиндра и потенциалами перемещений принимает следующий вид [10]:

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$$u_r = \frac{\partial \phi}{\partial r} + \frac{1}{r} \frac{\partial \psi}{\partial \varphi}, u_\varphi = -\frac{\partial \psi}{\partial r} + \frac{1}{r} \frac{\partial \phi}{\partial \varphi}.$$

Решение уравнение (5) ищется в виде

$$u_r(r, \varphi, t) = U_R(r) \cos(\varphi) e^{iv\omega t}, \quad (6)$$

$$u_\varphi(r, \varphi, t) = U_\varphi(r) \sin(\varphi) e^{iv\omega t},$$

где $U_R(r)$ и $U_\varphi(r)$ - амплитуды перемещений, которые удовлетворяют уравнению Гельмгольца комплексного коэффициента

$$\nabla^2 U_R(r) + \alpha_1^2 U_R(r) = 0, \quad (7)$$

$$\nabla^2 U_\varphi(r) + \beta_1^2 U_\varphi(r) = 0$$

Здесь

$$\alpha_1^2 = \frac{v_\omega^2}{C_{p0}^2 (1 - \Gamma_{\lambda 01})},$$

$$u_r = \sum_{k=1}^4 A_k U_k(r) \cos(n\varphi) e^{iv\omega t} =$$

$$= \left\{ \gamma_1 [A_1 J'_n(\gamma_1 r) + A_2 Y'_n(\gamma_1 r)] + \frac{n}{r} [A_3 J_n(\gamma_2 r) + A_4 Y_n(\gamma_2 r)] \right\}^*$$

$$* \cos(n\varphi) e^{iv\omega t},$$

(8)

$$u_\varphi = \sum_{k=1}^4 A_k V_n(r) \sin(n\varphi) e^{iv\omega t} =$$

$$= -\frac{n}{r} \left\{ \gamma_1 [A_1 J_n(\gamma_1 r) + A_2 Y_n(\gamma_1 r)] + \frac{n\gamma_2}{r} [A_3 J'_n(\gamma_2 r) + A_4 Y'_n(\gamma_2 r)] \right\}^*$$

$$* \sin(n\varphi) e^{iv\omega t},$$

где $A_k (k = 1, 2, 3, 4)$ - произвольные постоянные, которые определяются из граничных условий (3) и (4). Тогда получим систему неоднородных алгебраических уравнений с комплексными коэффициентами в виде

$$\sum_{k=1}^4 A_k c_{kj} = P \quad (j = 1, 2, 3, 4), P = \{0, 0, p_1, p_2\}^T, \quad (9)$$

где

$$c_{11} = Z_1(\gamma_1 a); c_{12} = Z_1(\gamma_1 a);$$

$$c_{13} = \frac{\gamma_2}{\gamma_1} Z_1(\gamma_1 a); c_{14} = Z_1(\gamma_1 a);$$

$$c_{21} = Z_2(\gamma_1 a); c_{22} = Z_2(\gamma_1 a);$$

$$c_{23} = \frac{\gamma_2}{\gamma_1} Z_1(\gamma_2 a); c_{24} = Z_2(\gamma_1 a / M); \quad (10)$$

$$c_{31} = J'_n(\gamma_1 b); c_{32} = Y'_n(\gamma_1 b);$$

$$c_{33} = \frac{n}{b} J_n(\gamma_2 r); c_{34} = \frac{n}{b} Y_n(\gamma_2 b);$$

$$c_{41} = \gamma_1 J_n(\gamma_1 b); c_{42} = \gamma_1 Y_n(\gamma_1 r);$$

$$c_{43} = \frac{n\gamma_2}{b} J'_n(\gamma_2 r); c_{44} = \frac{n\gamma_2}{b} Y'_n(\gamma_2 r),$$

$$\beta_1^2 = \frac{v_\omega^2}{C_{s0}^2 (1 - \Gamma_{\mu 01})}, \Gamma_{\mu 01} = 1 - a_{\mu c} - ia_{\mu s}, \Gamma_{\lambda 01} = 1 - a_{\lambda c} - ia_{\lambda s}$$

$$a_{\mu c}(\omega) = \int_0^\infty R_{\mu 1}(\tau) \sin \omega \tau d\tau,$$

$$b_{\mu s}(\omega) = \int_0^\infty R_{\mu s}(\tau) \cos \omega \tau d\tau,$$

$$a_{\lambda c}(\omega) = \int_0^\infty R_{\lambda 1}(\tau) \sin \omega \tau d\tau,$$

$$b_{\lambda s}(\omega) = \int_0^\infty R_{\lambda s}(\tau) \cos \omega \tau d\tau$$

Таким образом, совместные решения уравнений Гельмгольца (7) с учетом (4) и (6) выражаются через специальные функции Бесселя и Ханкеля [11]. Перемещение цилиндрического тела принимает следующий вид

где

$$Z_1(z) = n \left[\frac{1}{z} J_n(z) - J'_n(z) \right];$$

$$Z_2(z) = J'_n(z) + z J_n(z) \left[1 + \frac{1}{z^2} ((\lambda_0 / 2\mu_0)(\mu_{01} a))^2 - n^2 \right].$$

Система алгебраических уравнений (10) решается методом Гаусса с выделением главного элемента.

Численные результаты и их анализ.

Задача решается в безразмерных параметрах. Для расчета приняты следующие значения параметров

$$\rho = 1.72 \cdot 10^{-3} \text{ кг/см}^3, b = 0.900 \text{ м}, a = 0.150 \text{ м}, v = 0.25, U_R = 1$$

Параметры ядра релаксации ($R(t) = Ae^{-\beta t} t^{\alpha-1}$)

следующие $A = 0,048; \beta = 0,05; \alpha = 0,1.$

Результаты расчетов приведены на рис.1.

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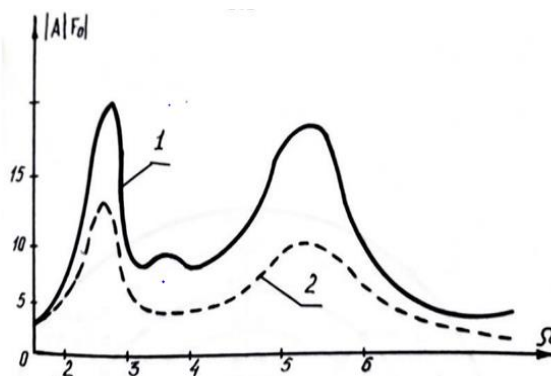


Рис. 1. Зависимости амплитуды перемещений от частоты.

На рисунке приведено изменение амплитуды перемещения в зависимости от частоты внешних нагрузок. На рисунке отмечено 1 – результаты изменения амплитуды без учёта вязкости материала, также на рисунке 2- приведено

изменение амплитуды с учётом вязкости материала. Видно, что учёт вязкости материала снижает амплитуды перемещений до 17%. Найдено, что для высоких частот радиальные смещения и компоненты напряжений малы.

References:

1. Borisov, V.F. (1996). *Konstruirovaniye radioelektronnykh sredstv.* (p.380). Moscow: Izd-vo MAI.
2. Tshaev, M.Kh., Safarov, I.I., & Mirsaidov, M. (2019). Oscillations of multilayer viscoelastic composite toroidal pipes. *Journal of the Serbian Society for Computational Mechanics*, Vol. 13, No. 2, 2019, pp.105-116. 10.24874/jsscm.2019.13.02.08
3. Yurkov, N. K. (2012). *Texnologiya radioelektronnykh sredstv.* (p.640). Penza: Izd-vo PenzGU.
4. Yurkov, N.K. (2004). Osobennosti upravleniya slojnymi sistemami na osnove konseptualnykh modeley. *Izmeritelnaya texnika*, № 4, pp. 14-16.
5. Kofanov, Yu.N., Malyutin, N.V., & Sarafanov, A. V. (2000). *Avtomatizatsiya proyektirovaniya i modelirovaniya pechatnykh uzlov radioelektronnoy apparatury.* (p.389). Moscow: Radio i svyaz.
6. Ilgamov, M.A., Ilgamov, M.A., Ivanov, V.A., & Gulin, B.A. (1977). *Prochnost, ustoychivost i dinamika obolochek s uprugim zapolnitelem.* (p.331). Moscow: Nauka.
7. Latifov, F.S. (1999). *Kolebaniya obolochek s uprugoy i jidkoy sredoy.* (p.164). Baku: «Elm».
8. Semenov, A.A. (2016). Model of deformation stiffened orthotropic shells under dynamic loading. *Journal of Siberian Federal University. Mathematics and Physics*, 9(4), pp.485-497.
9. Bosyakov, S.M., & Chjivey, V. (2011). Analiz svobodnykh kolebaniy silindricheskix obolochki iz stekloplastika pri granichnykh usloviyax Nave. *Mexanika mashin, mexanizmov i materialov*, №3, pp. 24-27.
10. Latifov, F.S., Seyfullaev, F.A., & Alyev, Sh. Sh. (2016). Free vibrations reinforced by transverse ribs of an anisotropic cylindrical shell made of fiberglass with a liquid flowing in it. *Applied mechanics and technical physics*, Vol. 57, No. 4, pp. 158-162.
11. Seyfullayev, A.I., & Novruzova, K. A. (2015). Oscillations of longitudinally reinforced orthotropic cylindrical shell filled with a viscous fluid. *Eastern-European Journal of Enterprise Technologies*, no. 3/7 (75), 29-33.
12. Mamedov, Dj.N. (2007). Svobodnye kolebaniya silindricheskix obolochek s zapolnitelem, usilennymi prodolnymi rebrami pri osevom shtatii s uchetom diskretnyx razmeshheniy reber. *Mexanika mashinostroyeniye*, № 4, pp.7-11.

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Article



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STAGES OF INNOVATIVE DEVELOPMENT IN THE NEW UZBEKISTAN

Abstract: The article discusses the tasks and tasks set by the head of our country for the implementation of the Innovative Development Strategy of the Republic of Uzbekistan for 2022-2026. Also, the implementation mechanisms, goals, and plans of our country in the production sectors and industries are described. At the same time, the article highlights the achievements and results achieved as a result of the work carried out in 2019-2021. Development of remote areas of our republic in an innovative manner, mechanisms for training personnel with new knowledge and skills, and issues aimed at the well-being, peace and sustainable development of the people have been widely disclosed.

Key words: Uzbekistan, innovation, strategy, economy, technology, ecosystem, infrastructure, spin-off, outsourcing, driver, company, modernization.

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Introduction

The head of our state issued a decree on the approval of the Innovative Development Strategy of the Republic of Uzbekistan in 2022-2026 and the decision on organizational measures to implement the "Innovative Development Strategy in 2022-2026" aimed at ensuring the implementation of the tasks specified in this document and creating the necessary legal and material basis for this.

With this decree and decision, a mechanism that radically renews the innovation environment is being introduced in our country.

As a result of the implementation of the strategy of innovative development of the Republic of Uzbekistan for 2019-2021, great progress was made in the provision and promotion of innovative and technological development in economic sectors and

social spheres, including agriculture, energy, construction, education, health care.

In particular, compared to 2015, Uzbekistan rose to 36 place in the Global Innovation Index. The amount of annual funds allocated from the state budget to the fields of innovation and science has reached 1.5 trillion soums, and the number of special institutions for financing innovative activities has increased to 28 in the last four years. In 2018, there were 6.5 thousand people, and in 2022 it was 10,800; that is, it increased by 1.5 times. However, the existing numbers and indicators do not correspond to the great scientific potential of our country. In order to achieve higher results, it is necessary to commercialize scientific and innovative developments in the real sector of the economy, to strengthen cooperation between science, education and industry.

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The decree of the President of the Republic of Uzbekistan on the approval of the "Innovative Development Strategy of the Republic of Uzbekistan in 2022-2026" is more significant as it covers a number of such issues.

The decision of the head of our state on organizational measures for the implementation of the strategy of innovative development in 2022-2026 is aimed at ensuring the implementation of the tasks specified in this decree and creating the necessary legal and material base for this.

Today, the above-mentioned strategy has become the need of times to determine new strategic directions for the implementation of innovative development, innovative technologies, and most importantly, our economy, and in this regard, it is aimed at continuing and strengthening the steps we have taken in previous years, and organizing work in new directions.

In the previous strategy, one of the main issues was aimed at the development of human capital, increasing the intellectual potential of human capital, and one of the great things that have been done in recent years in this regard is the development of the innovation ecosystem. But they are not enough and require further continuation of the above-mentioned work, and the main direction of the new strategy is innovation, setting new goals based on the principle of a new workplace. The head of our state decided that every person living in our republic should see an innovation today; that is, they should feel and enjoy these innovations today, not tomorrow or ten years from now.

In order to ensure the implementation of the documents, 224 projects worth 206 billion soums were formed in cooperation with the relevant ministries and agencies, a total of 1751 innovative projects in the region, industry and universities, scientific organizations, and 2507 jobs in the region. In addition, driver projects were developed, which provided for serial production of 26 6.6 trillion soums worth of 6.6 trillion soums, and 176 types of innovative products worth 33 trillion soums to be implemented in economic sectors of 26 sectoral organizations, which are set to produce scientific and innovative products.

It is planned to have an innovative component in modernization and development programs in geology, fuel energy, chemistry, transport, agriculture, light industry sectors, which are the main driver sectors of the economic sectors of our republic. As a result of the implementation of these innovative projects, a number of new types of innovative products will appear in our country. For example, transparent wood, high-purity copper, high-resistance coke, linium powder, placarded coil, industrial robots and new modern electric cars will be produced. Also, as a result of these projects, 8,000 megawatt solar and wind power plants will be put into operation in our republic.

The great news of the documents is that spin-off enterprises specializing in the production of scientific and innovative products will be established, which will commercialize the created scientific innovations and technologies.

A spin-off enterprise is the creation of a separate company as a spin-off by separating it from a scientific institute to expand the service that it is currently provided or the service that is in demand. For example, there may be demand for some type of service once a year in a scientific institute, or three to four times a year in higher education institutions, but it is necessary to organize a spin-off service on the basis of outsourcing rather than providing each of them separately. These companies will contribute to the development of our economy in the future, for instance, new types of services will provide an opportunity to create new national brands and train personnel in the fields of pharmaceuticals, agriculture, oil and gas, medicine, construction, and seed production.

Today, there are 159 higher education institutions operating in our Republic, and later they will determine their direction, and through spin-off companies, each higher education institution will have their own financial management and funds. This means that it will pave the way for conducting scientific research work by HEIs, building and re-equipping laboratories, sending young scientists and students to foreign ITIs and HEIs for internships, training and studies.

At the same time, if we look at the new system of network region, university, scientific organization, which will be introduced for the production of scientific and innovative products, we notice that network organizations will develop a portfolio of needs for innovation and submit it to the Ministry of Innovative Development. Governments choose a scientific organization or university in order to provide a scientific solution to network problems in the regions. Funds projects developed on the basis of the 1+1 principle together with scientific organizations and university network organizations. The production of the Ministry of Investments and Foreign Trade organizes the reproduction of successfully mastered innovative products on the market and serial production on an industrial scale. The exact role and responsibility of each organization participating in the process are defined.

As for the financial resources of the system, a completely new system of innovation financing is being introduced. That is, a fund to support innovative activities will be opened in network organizations. Funds of up to 10% of profits before paying profit tax are allocated to this fund. The appropriate deputy prime minister will monitor the timely allocation of funds to the fund and accept the reports of the relevant officials.

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Therefore, this decree and decision can be called a mechanism that radically renews the innovation environment.

The first goal in this strategy is to:

a) to create fundamentally innovative projects that will radically change, directly contribute to the development of our economy, regions, industries, and create jobs for new personnel by introducing innovations in the most remote areas, together with the development of our science, scientific and innovative infrastructures;

b) the second is to adapt the above-mentioned radically innovative projects to the market and thereby create a cycle turning them into effective innovations that generate capital; that is, they create funds, which will bring universal results.

Currently, due to the positive indicators of 13 innovative regions in our country, they will be doubled; 28 districts and cities will be transformed into innovative regions, and 226 innovative projects worth 204 billion soums will be implemented. As a result, it is planned to create 268 types of innovative products with added value and new jobs. The position of the deputy mayor for innovative development issues will be introduced in the structure of hokims of these regions.

Based on the President's order, in order to improve the ranking of our country in the "Global Innovation Index", the Republican Council for Working with International Ratings and Indexes is tasked with developing a plan of measures for 2022-2026 and entering it into international databases. The Decree approved the "Roadmap" for the implementation of the Innovative Development Strategy in the next year and a half. It includes measures such as patenting and commercialization of innovations created on the basis of appropriate financing with property owners, giving local scientific organizations the right to directly sign contracts with state organizations on the development and implementation of innovative products.

Through this document, a number of opportunities have been added to the "Inno"

educational and industrial technology park located in the "Student Town". The implementation of projects that have a high probability of gaining a major role in our society every day is given the status of residency in innovative strata, developments, and certain privileges are given to it when it receives this residency status.

This is due to the fact that in many cases there is no market for innovative products; that is, there is no demand for the newly introduced product, or the demand needs to exist. It is during this period that the norms adopted by the decision will be of great importance. This means that products can be introduced into our lives faster.

According to preliminary calculations, as a result of the implementation of the strategy, the number of innovative activity subjects at the Republic level increased from 613 to 2250; the number of innovative activity infrastructure objects tripled; the number of new jobs created as a result of innovative entrepreneurship increased fourfold, and the number of new innovative developments as a result of commercialization in domestic and foreign markets doubled.

If we look at the cross-section of regions, the number of local industrial enterprises engaged in technological innovations has increased from the current 92 to 600; the number of new technologies created in the region has increased from the current 69 to 384; the number of patents registered annually in the region has increased to 184, and the number of scientific projects implemented in cooperation with foreign organizations has increased to 183; the number of innovative startups will be increased from 210 to 1437.

In conclusion, the introduction of innovations in all sectors and industries will serve to increase new production capacities, create new opportunities for the scientific potential of our people, especially young people and create thousands of new jobs, which results in increase of the economic power of our country.

References:

1. (2022). *Decree of the President of the Republic of Uzbekistan dated July 6, 2022 No. PF-165 "On approval of the Innovative Development Strategy of the Republic of Uzbekistan in 2022-2026"*.
2. (2026). *Decision PQ-307 of the President of the Republic of Uzbekistan dated July 6, 2022 "On organizational measures to implement the Innovative Development Strategy of the Republic of Uzbekistan in 2022-2026"*.
3. Karabaeva, G.Sh., Irmatova, A.B., Nematov, J.A., Tairov, S.O., & Najmitdinov, A.J. (2022). *"HR-management: transformation of innovative industry in Uzbekistan"*. Leadership and management Volume 9, Number 1, January-March 2022, str. 188-199.

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4. Kabulov A.A. (2021). "Razvitie i effektivnost innovatsionnoy politiki Respubliki Uzbekistan" "innovation economy: problem, analysis and development PROSPECTS". Collection of scientific articles of the international scientific and practical conference May 20-21, 2021. (Part 1). pp.27-34.
5. Norov, A.E. (2020). "Theoretical and methodological bases of commercialization of innovative activity and its results". *Scientific electronic magazine "Economy and innovative technologies"*, No. 1, January-February, 2020, pp. 116-131.
6. Ziyanova, N.E., & Umarova, A.I. (2019). "Ways to improve the innovative development of regions of the Republic of Uzbekistan". *Economy and finance*, 3(123), pp.52-57.
7. Olimjonov, A. U. (2017). "Innovatsionniy put razvitiya ekonomiki Uzbekistana". "Economy and innovative technologies" scientific electronic journal, No. 2, March-April, 2017, pp. 1-7.
8. (n.d.). Retrieved from <https://xs.uz/uzkr/post/ozbekistonni-2030-jilgacha-innovatsion-rivozhlantirishning-maqсадli-korsatkichlari-ishlab-chiqiladi>
9. (2022). Retrieved from <https://kun.uz/news/2022/07/11/ozbekistonning-innovatsion-rivojlanish-strategiyasi-tasdiqlandi>
10. (2026). Retrieved from <https://yuz.uz/news/2022-2026-yillarda-ozbekiston-respublikasining-innovatsion-rivojlanish-strategiyasini-amalga-oshirish-boyicha-tashkiliy-chora-tadbirlar-togrisida>
11. (n.d.). Retrieved from <https://mininnovation.uz/oz/contest/post-691>
12. (n.d.). Retrieved from https://uza.uz/ru/posts/innovacion-rivozhlantirish-strategiyasi-loyihasi-muhokama-qilindi_280505?q=%2Fposts%2Finnovacion-rivozhlantirish-strategiyasi-loyihasi-muhokama-qilindi_280505

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Article



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THE ISSUES OF SECTARIANISM AND SECT IN THEIR CREATIVITY OF THE POETS OF THE LITERARY ENVIRONMENT OF KOKAN

Abstract: *Sufism has a special influence on the poetry of the poets of the Kokan literary environment. The world of ideas and images in their poetry is directly determined by the traditionalism of artistic and mystical literature. In this article discussed the influence of sects in the work of the poets of the literary environment of Kokan and the issue of attitude towards them.*

Key words: *sufism, sect, irfon, love, Sufi, rind, ascetic, history, nation.*

Language: *English*

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Introduction

Sufism, which provides inner calmness, mental relaxation, and fiction, which illuminates the secrets of the human heart, entered into self-education under a common banner. Therefore, it is impossible to imagine classical literature, whose main goal is the perfection of human morality and thinking, and Sufism, which educates a perfect person. Literature became a wing in the wide spread of Sufism, it gave a unique tone and balance in artistic observation to increase the power of image and impact. However, Sufism also gave themes in literature, immortality to ideas, feelings, sensibility, and grandeur to experiences, and as a result of this commonality, a magnificent **literature** emerged in the East. Although literature is a reflection of the psyche, it is a child of its time. In this sense, literature holds a mirror not only to the human heart, but also to the people's life, socio-political environment, spiritual and moral outlook, mother nature, in short, it holds a mirror to the whole being. The winners write history. And literature embodies the happy age and dreamy years of this "history of winners" with the magic of words, the power of observation and the common gift of inspiration.

Master of Navoism Ibrahim Haqul also says:
"Each goal and truth related to the glory of humanity

will be sorted out in history. No aspiration, no victory that does not meet the requirements of eternity, the criteria of eternity, will not find a place in this history. This is the inviolability of the historical fate, a great example. There is no significant difference between history and literature to understanding and evaluating it. But compared to history, the opportunity and privilege of literature is wider. True literature is an existence between existence and non-existence" [6:71]. Therefore, the idea and artistry of classical literature are directly determined by religion, also with Sufism and the uniqueness of sects. In the work of the poets of the literary environment of Kokan, there is definitely a significant influence of mysticism, under the traditionalism characteristic of classical literature. The use of mystical terms, images, description, and symbols in their work also supports it. In the poetry of the poets, the main images of classical literature such as the lover, master, the ascetic, the rind, the saint, the poor, the dervish acquire a mystical meaning. After all, almost all of the creators of this literary environment were aware of their mystical works. Especially, it is not an exaggeration to say that this traditionalism started with the work of Jahon Otin Uvaysiy. Mystical knowledge is definitely required to determine his style, worldview, and expressive skills. For example, in one ghazal, the poet says:

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*Muyassar bo'lmasa gar toqi abru
sajdagohingdin*

*Na hosil senga, zohid, tashlag'il bo'yunngni
zunnora, – [4:7]*

gives a new interpretation of the traditional view in the work of the predecessors. The ascetic is accused of greed and hypocrisy, and amorous demands are placed on him. In Uvaysiy, the situation and the meaning are harmonious. Undoubtedly, the height of the case created the depth of the expression. He really felt the pain of self-awareness and self-realization and was able to express it skillfully. Sufism is overcoming the self and reaching the self. This issue is repeatedly mentioned in Uvaysiy's poetry:

*Istasang yor ila o'z'luk, zohido, ko'p yig'lag'il,
O'z'lugung g'arq etmag'a Jayhun kerakmazmi
senga.*

Of course, only the master of logic, who knows the pains and hardships of attaining the divine self by raising the human self, can understand that Jayhun, which appears from the tears, is needed to drown the selfishness. Uvaysiy's poetry has a masculine courage in its content, and a charm in its expression. When you read it, you feel the tension of the heartstrings that keep the voice of truth and truth high. Consider the following verses:

*Ko'rub Majnun tan uryonasin ta'n etma Layliga,
O'tub o'z'lukni bobidin ki har devonadin kelmas.*

The dream of getting to know such an identity is characteristic of all poets in of the literary environment of Kokan. The sensitive poetess Nadira also relies on love in this way, realizing that love comes with self-renunciation:

*Ey ko'ngul, yor uchun jahondin kech,
Havas bog'u bo'stondin kech.
Anga o'z'luk bila yetib bo'lmas,
Istasang yor vasli jondin kech [5:49].*

It is natural that mystical tones and religious ideas are reflected in the works of the poets of the literary environment of Kokan. After all, the sources inspired, directly influenced and recognized by them are examples of enlightened literature. Uvaysiy, considered one of the teachers of the poets of this literary environment, says in one of his ghazals:

*O'zni qutqarmoq uchun yeldim-yugurdim har
sori,*

*Oh vovayloki, bora-bora oshiq bo'lmisham.
Manzilu ko'yu, aloyiq bandidin ozodman,
To tariqi Xojai Ahrora oshiq bo'lmisham [5:21].*

The recognition of Khaja Ahrar Valiy, a famous representative of the Naqshbandiy's sect, in her Haqqa love series, also clarifies our ideas about the love and lore of the poetess. And Samar Bonu expects help from the great ones in the spiritual caravan:

*Ilohi sayyidi qul Xoja Ahmad,
Aningdek yaxshilardin bo'lsa behad.
Ilohi hurmati ul Xoja Hofiz,
Menam bo'lsam ruboiy ichra mahfuz.
Ilohi hurmati Amir Alisher,*

Bahaqqi So'fi Olloyordek er.

Ilohi hurmati ul Shamsi Tabriz,

Meni bu yerda rasvo qilmagaysiz. [5:106].

Turkish piri Khoja Ahmad Yassaviy, rindi Shiraz Khoja Hafiz, Mir Alisher, the ocean of enlightenment, Sufi Olloyar, Shamsi Tabriz is the sultan of lovers, who is familiar with the glorious life and wise works of Tabriz, took them into account when determining the literary and aesthetic views of the poetess, who was fond of them. Need to get Anbar Otin, who is considered a special phenomenon in the literary environment of Kokan because he is a singer of courage and justice:

*Agar san ustodi adabni istasang, Anbar Otin,
San Navoiy ta'limin doim, mutolaa qil, – [1:35]*

says. These poets, like their spiritual teachers, choose love as the main theme of their poetry. This is the love for the Creator that prompts His servants to be loving, compassionate, and always stand up for what is right. In a word, servitude is servile love. These verses of Samar bonu fully justify our view:

*Bonuyo, har subhidam ohing Xudog'a tuhfa et,
Qulki bexizmat kelubdur xo'jag'a darkor emas
[5:121].*

Their wails and wails belong to God, the Lord of hearts. They looked at the world with this light of grace and enlightenment. In a word, they tried to define the way of life by correctly understanding the "purpose of coming to the world". The history of love is also connected with the day of "Miysoq" - "Agreement", which is the main theme of mystical literature:

*Qay kuni ishqing havosi topdi ko'nglumda
haror,*

*Ul sababdindurki, ahli Marg'ilona tushdi o't.
Vaysiy, suyding ishq, kuymaslig' ilojin istama,
Avvalo qolu baloda oshiqona tushdi o't [4:24].*

The reason for Uvaysiy's burning in love and extinguishing the fire of reconciliation with patience is because this love is connected with "prom party". That is, the owner of this love is the Lord of all worlds - Lord of the worlds. The definition and description of love, the condemnation and criticism of love have their own, colorful expression in the work of each poetess. However, in the poetry of this period, as much as there is a tendency to sectarianism, there is also a call to stay away from it. These views are especially evident in the work of Dilshodi Barno and his student Anbar Otin. In his autobiography, Dilshodi Barno says: "...I often followed the rind poets in writing a weak work, and went against the people of unity and mystics, and against the praise poets who were given to praise the ruling class" [1:9]. Undoubtedly, as noted by the mystic I.Haqqul: "Criticism of Sufis is a separate history. Giving in to Sufism without specifically studying it, without knowing exactly what the benefits, losses and harms of Sufism in the past of the country and the nation are, is a more dangerous act as it is limited. If every

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historical event is not studied and evaluated as it was, in that case, in that essence, half the truth will be revealed" [6:78]. But it is surprising that she separates "ahle vahdat" and "mysticists" from this woman, understanding the hypocrisy of the poet who is thirsty for a man. After all, it is true that the real freedom lies in religion and its practical life, which is tariqah. It is no secret that Sufis are free personalities. In addition, the people of Maykhana - rinds are actually Sufis. At that time, the number of "false mullahs" and "hypocrite sheikhs" described in the wisdom of Khoja Ahmed Yassaviy increased, and the mixing of religion with heresy, superstition, and falsehood of the sect intensified. It was natural that the intensity of the time, when the people were oppressed by two-sided oppression, and the games of ideology would create a darkness in the thinking. The poets who are worried about the pain and sorrow of the people and the future of the nation, with the strength of their hatred for contemporary religious and Sufis, want the new state to be far away from religion and sects and promote it: don't come. If the king of Russia is really just, and if he wants the dependent peoples to be free like Russia, and all the people of Russia should live together as equals, then the laws of amortization and rule should be just. let him edit it, let the ruling law create an exception to the rules of religion, let the religious people be recognized as righteous among the government, let the religious people be recognized as patrons in prayer, and let the state and knowledge be discovered in the welfare of the people. Anbar Otin continues these thoughts in his "Philosophy of Darkness" and says: "A ruler who does not follow the path of relying on the religion of Islam and the religion

of the state will inevitably face disaster at any time. However, not only the religious people support the rulers of this time, but also the shaykhs and Sufis of the Naqshbandiy and Yassaviy clans, and give a fatwa to oppress the people, make the poor people agree to the tyranny of the oppressor. They attribute to being and tolerating, only saying Allah, as Yassaviy says:

Zolim agar zulm aylasa, Olloh degil,

Bosh yorg'uncha kaltaklasa valloh degil'

[1:105].

Anbar Otin was right when he said, "I came to the world at a bad time." As a child of that terrible time, he took a pen in his hand and called the nation to be aware. He was an active participant in reality. But we have the opportunity and the privilege to evaluate the truths of the distant past like a beholder. Therefore, it is necessary to take them into account in the analysis and interpretation of artistic works that hide history in their bosom.

The work of representatives of the literary environment of Kokan is valuable both in terms of art and history. In fact, this period is literally the literature of enlightenment. At the core of this lore there is a significant influence of sects. And it can be said that the creative heritage of enlightened poets is important in the emergence of modern literature figures who sacrificed their lives for the freedom of the nation and individual freedom. Even in the works of freeman poets, there is a unique, new interpretation of happiness and suffering, innocence and sadness, effort and courage. In this, women's love, wisdom and perception and its expression style are also an example for today's literature.

References:

1. Otin, A. (1972). *She'rlar. Risola*. Toshkent: G'afur G'ulom.
2. Barno, D. (1972). *Tanlangan asarlar*. Toshkent: G'afur G'ulom.
3. Nodira-Komila. (2001). *Devon*. Toshkent: Abdulla Qodiriy nomidagi xalq merosi nashriyoti.
4. (1980). *Uvaysiy she'riyatidan*. Toshkent: O'zbekiston KP Markaziy Komitetining nashriyoti.
5. (1999). *Sharqning yetti yog'dusi*. Toshkent: Abdulla Qodiriy nomidagi xalq merosi nashriyoti.
6. Haqqul, I. (2009). *Ijod iqlimi*. Toshkent: Fan.
7. G'azzoliy, I. (2014). *Ihyou ulumiddin*. Toshkent: Toshkent Islom universiteti.
8. Tüerer, O. (1995). *Tasavvuf tarixi*. İstanbul: Seha.
9. Rahmonova, Z. (2020). *Irfoniy adabiyotda "O'lmasdan burun o'ling" hadisi talqini. Mas'alahoi mubrami filologiyai o'zbek va tojik (O'zbek va tojik filologiyasining dolzarb masalalari). Maqomyai maqoloti ilmi. "Xuqand: Nuri ma'rifat"*.
10. Rahmonova, Z. (2021). *Ishq, irfon va irshod*. Toshkent: - Tafakkur.

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OSCILLATIONS OF A VISCOELASTIC MECHANICAL SYSTEM WITH DAMPER

Abstract: The problem of dynamic damping of vibrations of a mechanical system, which has a finite number of degrees of freedom, is considered. The aim of the study is to develop methods and algorithms for solving problems of studying dynamic processes in mechanical systems with a finite number and a countable set of degrees of freedom under the influence of vibrational and non-stationary influences, as well as obtaining and analyzing numerical results. To solve the problem, methods for solving problems of equations of mathematical physics, methods of mechanics of a deformable body were used. A mathematical statement, solution methods and algorithms have been developed for studying the problems of the dynamics of dissipative-homogeneous or inhomogeneous mechanical systems consisting of rigid bodies with a finite number of degrees of freedom.

Key words: CEA unit, dynamics, load, spring, dynamic processes, solids, attenuation.

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КОЛЕБАНИЯ ВЯЗКОУПРУГОЙ МЕХАНИЧЕСКОЙ СИСТЕМЫ С ГАСИТЕЛЕМ

Аннотация: Рассматривается задача динамического гашения колебаний механической системы, имеющее конечное число степеней свободы. Целью исследования является разработка методов и алгоритмов решения задач исследования динамических процессов в механические системы с конечным

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числом и счётным множеством степеней свободы при воздействии вибрационных и нестационарных воздействий, также получение и анализ численных результатов. Для решения задачи использованы методы решения задач уравнений математической физики, методы механики деформируемого тела. Разработана математическая постановка, методики решения и алгоритмы для исследования задач динамики диссипативно-однородных или неоднородных механических систем, состоящих из твёрдых тел с конечным числом степеней свободы.

Ключевые слова: блок РЭА, динамика, нагрузка, пружинка, динамических процессов, твёрдых тел, затухания.

Введение

Рост производительности и эффективности машин, увеличение скоростей движения рабочих органов, снижение материалоемкости, повышение нагрузки вследствие вибраций и ударов, необходимость обеспечения надежной работы оборудования и безопасных условий труда – факторы, определяющие внимание к задачам виброзащиты [1,2]. Это составляет достаточно развитое и актуальное направление современной динамики машин.

Современные машины оснащаются сложными системами автоматического управления, что позволяет в контроле за динамическим состоянием технических объектов использовать внешние источники энергии, а интересующие задачи обеспечения необходимого уровня вибрационных движений рассматривать как задачи обеспечения технологического качества.

Современная динамика машин представляет собой междисциплинарное научно-техническое пространство, в котором пересекаются задачи теории колебаний теоретической и прикладной механики, теории механизмов и машин, машиноведения, мехатроники, робототехники, вибродиагностики и вибрационной механики [3,4]. Отраслевая окраска привносит существенные элементы специфики, требующие, зачастую, особых подходов, основанных на учете нелинейных эффектов, особенностей взаимодействия рабочих органов с внешней средой и различий в системах внешних воздействий и возмущений. Известные системы нормативных документов (ГОСТы, международные стандарты, руководящие технические материалы и рекомендации, отраслевые методические разработки) закрепляют наработанный в области теории и практики опыт и позволяют во многих случаях использовать, искать и находить рациональные решения [5].

Амортизаторы предназначены для снижения амплитуды вибраций не только на резонансных

частотах, но и во всем требуемом диапазоне частот, что влечет за собой усложнение конструкций за счет введения дополнительных средств измерения вибраций. Снижение уровней вибраций радиоэлектронных аппаратов (РЭА) является актуальной задачей в авиастроительной промышленности. Для расчета механических процессов, происходящих в радиоэлектронных конструкциях, они представляются в виде некоторой модели [6]. При разработке расчетной модели нужно, по возможности, стремиться к тому, чтобы не вносить никаких принципиальных упрощений в рассматриваемые физические явления с тем, чтобы избежать неконтролируемых погрешностей. Вибрационные нагрузки, испытываемые приборами и аппаратами, вызывают механические напряжения в их элементах.

Для защиты оборудования от динамических воздействий широко применяются различные гасители и демпфирующие элементы [7,8]. По характеру приложения внешних нагрузок виброизоляция РЭА условно разделяются на активную и пассивную [9,10]. Если объект сам является источником колебаний, тогда необходимо изолировать от опорного основания [11,12].

Радиоэлектронная аппаратура часто моделируется в виде монолитного блока. К ним относятся блоки, в которых промежутки между радиодеталями заполнены компаундом, пенопластом, резиной и т.п. В таких блоках нет пустот в модель – сетка для них трехмерна. Предложен алгоритм определения резонансной частоты и амплитуды перемещений, рассматриваемой механической системы. Применение предложенной математической модели позволяет снизить суммарные импульсные нагрузки РЭА до 25%.

2. Методы

Рассмотрим случай, когда к середине балки прикреплен один гаситель [3].

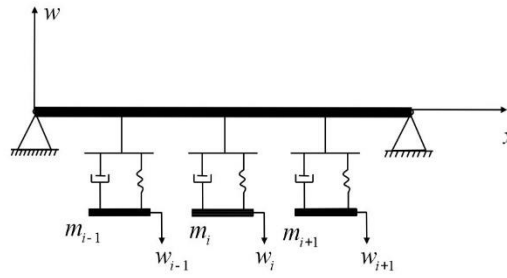


Рис. 1. Система балка-демпферы

Согласно линейной теории наследственности при одномерном деформировании тел, соотношения между напряжениями и деформациями выражаются следующими уравнениями:

$$\sigma(t) = E \begin{bmatrix} t \\ \varepsilon(t) - \int R(t-s)\varepsilon(s)ds \\ 0 \end{bmatrix}; \quad (1)$$

$$\varepsilon(t) = E^{-1} \begin{bmatrix} t \\ \sigma(t) + \int K(t-s)\sigma(s)ds \\ 0 \end{bmatrix}; \quad (2)$$

где $K(t-s)$ - ядро ползучести материала, $\varepsilon(t)$ - линейная деформация, $\sigma(t)$ - напряжение, E - мгновенный модуль упругости, t - время, отсчитываемое от начала нагруженные, S - параметр интегрирования, $R(t-s)$ - ядро релаксации. Зависимость ядер $K(t-s)$ и $R(t-s)$ от разности соответствует тому, что "память" материала о силовом воздействии, произведенном в момент s , определяется истекшим промежутком времени $t-s$. В частности, это означает, что если силовое воздействие на упруго-вязкое тело будет циклическим, то и деформация тела будет также циклической с некоторым сдвигом по фазе [4]. При изгибных колебаниях пластинок эта закономерность будет описываться более сложными функциями памяти, чем при статическом деформировании, так как рассеяния энергии в материале тесно связаны с накоплениями микрповреждений в процессе циклического деформирования материала, вообще говоря, по всем трем направлениям пластинки. В качестве примера рассмотрим балку с тремя присоединенными демпферами. Пусть $n=3$ (третья мода колебаний). Запишем уравнения выше приведённого уравнения в операторной форме, аналогичной закону Гука

$$\sigma(t) = \tilde{E}\varepsilon(t); \quad \varepsilon(t) = \tilde{E}^{-1}\sigma(t)$$

и применим их для исследования изгибных колебаний тонких пластинок в рамках линейной теории Кирхгофа-Лява, считая при этом коэффициент Пуассона постоянным $\nu = const$, здесь и везде в дальнейшем будем применять

линейно-временные операторы над функциями в записи

$$\left. \begin{aligned} \tilde{E}f(x, y, z) &\equiv E \left[f(x, y, z) - \int_0^t R(t-s)f(x, y, z, s)ds \right], \\ \tilde{E}^{-1}f(x, y, z, t) &\equiv E^{-1} \left[f(x, y, z, t) + \int_0^t K(t-s)f(x, y, z, s)ds \right] \\ \tilde{f}(x, y, z, t) &\equiv f(x, y, z, t) \pm \int \frac{K(t-s)}{R(t-s)} f(x, y, z, s)ds \end{aligned} \right\} \quad (3)$$

При изгибных колебаниях пластинок в рамках линейной теории упругости и наследственности, соотношения между компонентами деформации $\varepsilon_{ij}, \gamma_{ij}$, прогибом $w(x, y, t)$ срединной поверхности пластинки и компонентами напряжений σ_{ij}, τ_{ij} , на основании обобщенного закона Гука и формул (4), запишутся в виде

$$\left. \begin{aligned} \tilde{\varepsilon}_x(x, y, z, t) &= -E^{-1}z \left[\frac{\partial^2 w(x, y, t)}{\partial x^2} + \int_0^t K(t-s) \frac{\partial^2 w(x, y, s)}{\partial x^2} ds \right] \\ \tilde{\varepsilon}_y(x, y, z, t) &= -E^{-1}z \left[\frac{\partial^2 w(x, y, t)}{\partial y^2} + \int_0^t K(t-s) \frac{\partial^2 w(x, y, s)}{\partial y^2} ds \right] \\ \tilde{\gamma}_{xy}(x, y, z, t) &= -E2z \left[\frac{\partial^2 w(x, y, t)}{\partial x \partial y} + \int_0^t K(t-s) \frac{\partial^2 w(x, y, s)}{\partial x \partial y} ds \right] \\ \tilde{\sigma}_z(x, y, z, t) &= -\tilde{E} \left[\frac{h^3 - 3h^2z + 4z^3}{24(1-\nu^2)} \nabla^2 \nabla^2 w(x, y, t) \right], \\ \tilde{\sigma}_{xz}(x, y, z, t) &= -\tilde{E} \left[\frac{h^2 - 4z^2}{8(1-\nu^2)} \left(\frac{\partial^3 w(x, y, t)}{\partial y^3} + \frac{\partial^3 w(x, y, s)}{\partial x \partial y} \right) \right], \\ \tilde{\tau}_{yz}(x, y, z, t) &= -\tilde{E} \left[\frac{h^2 - 4z^2}{8(1-\nu^2)} \left(\frac{\partial^3 w(x, y, t)}{\partial y^3} + \frac{\partial^3 w(x, y, s)}{\partial y \partial x} \right) \right]; \\ \tilde{\sigma}_x(x, y, z, t) &= -\tilde{E}^{-1} \frac{z}{1-\nu^2} \left[\frac{\partial^2 w(x, y, t)}{\partial x^2} + \nu \frac{\partial^2 w(x, y, s)}{\partial y^2} \right] \\ \tilde{\sigma}_y(x, y, z, t) &= -\tilde{E}^{-1} \frac{z}{1-\nu^2} \left[\frac{\partial^2 w(x, y, t)}{\partial y^2} + \nu \frac{\partial^2 w(x, y, s)}{\partial x^2} \right] \\ \tilde{\tau}_{xy}(x, y, z, t) &= -\tilde{E} \frac{z}{1-\nu} \frac{\partial^2 w(x, y, t)}{\partial x \partial y}; \end{aligned} \right\} \quad (4)$$

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Пусть $a_1 = \frac{l}{6}$, $a_2 = \frac{3l}{2}$, $a_3 = \frac{5l}{6}$,
 $u_{01} = -u_{02} = u_{03} = 0.0018$, $v_0 = -1$, $\mu = 0.01$, $\delta_1 = 1$,
 $\omega = 9\pi^2$, $q_{01} = -q_{02} = q_{03} = 2$, $f = 1$. Корни
характеристического уравнения записываются в
виде $\lambda_{1,2} = -44.3695 \pm 99.213i$
 $\lambda_{3,4} = -44.3669 \pm 99.207i$,
функция $B(\tau_1, \tau_2)$, которая характеризует прогиб
балки, равна

$$B(\tau_1) = -0.0056e^{-44.3669\tau_1} \cos(99.207\tau_1) - \\ -0.0056e^{-44.3695\tau_1} \cos(99.213\tau_1) - \\ -0.0001e^{-44.3669\tau_1} \sin(99.207\tau_1) - \\ -0.0001e^{-44.3695\tau_1} \sin(99.213\tau_1).$$

3. Результаты и анализ

Рассмотрим случай, когда к середине балки
прикреплен один гаситель [3]. При наличии трех
гасителей колебания балки затухают быстрее.

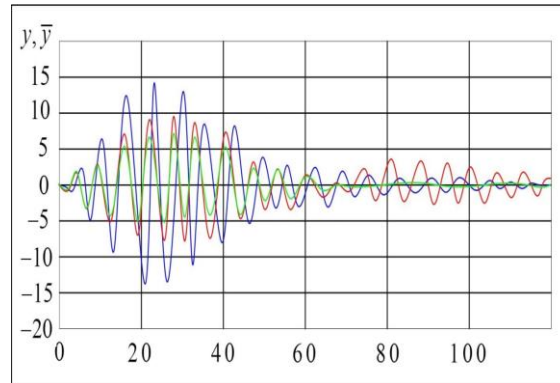


Рис. 2. Графики переходных процессов относительных колебаний масс защищаемого объекта (кривая 1) и гасителя (кривая 2) в системе с ДГК

На рис. 2 приведено изменение перемещений
гасителя относительных колебаний масс
защищаемого объекта (кривая 1) и гасителя
(кривая 2) в системе с ДГК ($A=0.07$). Видно, что с
увеличениями вязкости деформируемого без
массового элемента перемещения гасителя в
зависимости от времени снижаются
экспоненциальном законом.

Пусть $u_0 = -0.0036$, $v_0 = -1$, $\mu = 0.01$, $\delta_1 = 1$,
 $\omega = 9\pi^2$, $q_0 = -2$, $f = 1$. Корни
характеристического уравнения в данном случае
записываются в виде

$$\lambda_{1,2} = -44.371 \pm 44.371i \\ \lambda_{3,4} = -44.365 \pm 44.365i$$

функция $B(\tau_1, \tau_2)$ равна

$$B(\tau_1) = -0.0056e^{-44.365\tau_1} \cos(44.365\tau_1) - \\ -0.0056e^{-44.371\tau_1} \cos(44.371\tau_1) - \\ -0.002e^{-44.365\tau_1} \sin(44.365\tau_1) - \\ -0.002e^{-44.371\tau_1} \sin(44.371\tau_1).$$

Далее требуется определить значение шага
по времени из условия устойчивости численного
решения и значения коэффициентов, входящих в
конечно – элементную схему. Видно, что в
течение времени максимальное значение
перемещений снижаются.

Заключение

Таким образом, разработана методика
решения и алгоритм для определения
резонансного состояния блока РЭА от
вибрационных нагрузок, сделанный анализ
амплитудной – частотной характеристики показал
удовлетворительную сходимость расчета по
методу конечных разностей. Учёт вязкости
материала блока (пластины) амортизатора
снижает амплитуды перемещений с 15% до 20%.
Также установлено, что наличие резиновых
амортизаторов снижает амплитуды колебаний
аппаратуры до 30%.

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References:

1. Borisov, V.F., & Lavrenov, O.P. (1996). *Konstruirovaniye radioelektronnix sredstv.* (p.380). Moscow: Izd-vo MAI.
2. Bilibin, K. I., et al. (2002). *Konstruktorskoye proektirovaniye elektronnoy apparaturi: Uchebnik dlya vuzov.* Pod obsh. red. V.A. Shaxnova. (p.528). Moscow: Izd-vo MGTU im. N. E. Baumana.
3. Il'inskiy, V.S. (1982). *Zashita REA i prezionnogo oborudovaniya ot dinamicheskix vozdeystviy.* (p.296). Moscow: Radio i svyaz'.
4. Kopilov, I.A., Taliskiy, Ye.N., & Shumarin, S.V. (2005). *Svidetel'stvo ob ofisial'noy registrasii programmi dlya EVM № 2005611814 «Programmiy kompleks proektirovaniya vibroustoychivix elektronnix moduley».*
5. Klaf, R., & Penzien, D.J. (1979). *Dinamika sooruzheniy.* (p.320). Moscow: Stroyizdat.
6. Xarris, S.M., & Krid, Ch.I. (1980). *Spravochnik po udarnim nagruzkam.* (p.360). L.: Sudostroenie.
7. Safarov, I.I., Akhmedov, M. Sh., & Boltaev, Z.I. (2014). Waveguide Propagation in Extended Plates of Variable Thickness. *Open Access Library Journal*, Vol.1, pp.2-9.
8. Safarov, I.I., Boltaev, Z.I., & Axmedov, M.Sh. (2015). Setting the Linear Oscillations of Structural Heterogeneity Viscoelastic Lamellar Systems with Point Relations. *Applied Mathematics*, Vol.6, pp. 228-234.
9. Safarov, I.I., Teshaev, M.Kh., & Madjidov, M. (2014). *Dempfirovaniye kolebaniy mexanicheskix sistem.* (p.97). LAP LAMBERT Akademik Publishing.
10. Rossikhin, Yu. A., Shitikova, M. V., & Shcheglova, T. (2010). Forced vibrations of a nonlinear oscillator with weak fractional damping. *Journal of Mechanics of Materials and Structures*, Vol. 4, Issue 9, pp. 1619-1636 DOI: 10.2140/jomms.2009.4.1619.
11. Rossikhin, Yu. A. , Shitikova, M. V., & Trung, P. T. (2016). Application of the fractional derivative Kelvin-Voigt model for the analysis of impact response of a Kirchhoff-Love plate. *WSEAS Transactions on Mathematics* - 2016, Vol. 15, pp. 498-501.
12. Safarov, I.I., Teshaev, M. Kh., Nuriddinov, B.Z., Ablokulov, Sh. Z., & Ruzimov, A. (2021). On Indirect Excitation of Lateral Vibrations of the Table of the Electrodynamical Stand Suspended on Viscoelastic Shock Absorbers. *Journal of Physics: Conference Series*, Volume 1921, First International Conference on Advances in Smart Sensor, Signal Processing and Communication Technology (ICASSCT 2021), 19-20, March 2021, Goa, India, pp. 105-116.

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Article



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NECESSITY OF USING INTERNAL AUDIT SERVICE IN ECONOMIC ENTITIES

Abstract: This article examines the need to organize and effectively use the internal audit service in business entities. Effective ways of organizing internal audit are described.

Key words: internal control system, control, current control, financial operations, integral control, assets, quality product, production costs.

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Introduction

Internal control system in economic entities in solving the task of increasing the competitiveness of enterprises due to the harmless operation of economic entities, the production of quality products, the introduction of a strict economy system, the promotion of reducing production costs and product costs effective organization is of great importance.

A prerequisite for the scientific organization of internal control and the theoretical and methodological basis for evaluating this system in the course of audits is the disclosure of the concepts of "internal control" and "internal control system".

There are several interpretations of the concept of "control" in the scientific literature. The complexity of defining control in a general way is determined by the variety of its forms and scopes. The issues of theoretically based classification of the concept of "control" are given a special place in the work of the economist M.M.Tulakhodzhaeva. According to him, "Forms depending on the time of implementation of control actions are divided into initial, current and next control. Preliminary control-provision is carried

out at the stage of planning and design, before the implementation of economic or financial operations, and serves to adopt rational management solutions.

Current control is an integral part of internal economic control, a component of the process of rapid management and regulation of production and financial activities of the entire enterprise and its internal divisions. Current control provides a close relationship between planning and execution of an effective production process, and is carried out with the help of rapid statistical and accounting methods.

The next control is carried out after the implementation of economic and financial operations, and it differs by the in-depth study of the audited documents and the entire financial situation of the enterprise. Such an idea can also be found in the works of the Russian scientist V.I.Rodolsky. Also, as a confirmation of the above, it is permissible to cite the following opinion: "Control is divided into a separate system. As a part of the control management system, it is divided into the following according to the classification of various signs: initial, current, next; constant, periodic, random; documentary, real; by

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choice".

N.F.Karimov approaches the concept of "control" as follows: "...by control, it is appropriate to understand the harmony of theoretical knowledge and practical experience expressed in various fields of science, first of all, accounting, finance, management, economic analysis, informatics". According to the definition given by B.Khoshimov, "Control serves the purpose of uncovering deficiencies and mistakes in the operation of the enterprise and its components, correcting them in time and preventing them from happening in the future". M.F.Ovsiychuk offers the definition that "Control is a comprehensive study of the activity of the organization and its structural units, the economic efficiency and legal implementation of economic operations, the reliability of accounting reports and account information, and the state of the object of control". H.N.Musaev defines that "Control consists of studying the activities of economic entities, finding existing internal opportunities, identifying shortcomings, and developing recommendations aimed at improving activities". According to the definition of O.Bobojonov and K.Jumaniyozov: "Control is the final process of planning and analysis, which aims to fulfill predetermined tasks of the subject's activity and allows to reveal and prevent deviations."

In contrast to the above opinions, it is possible to distinguish between external and internal control, depending on the entity performing control in the economic entity. Experts distinguish departmental, non-departmental and internal economic control among the forms of external control. M.M.Tulakhodjaeva adds state, public and independent control to the above. Economists give different definitions of internal control, including its object, subject, goals and forms. For example, in the Western economic literature, internal control (integral control) is viewed as "an accounting and management control committee that helps to ensure that the decisions made in the organization are properly implemented in practice. Internal control includes accounting control and administrative control. Accounting control includes the methods and methods of checking accounting documents and ensuring the preservation of material assets. It helps to prevent errors and other deficiencies in the process of checking (inventory) the actual existence of assets. "Administrative or management control includes a set of instructions, methods and techniques that help to plan and control the financial and economic activities of an economic entity".

Therefore, in order to achieve the most necessary level of internal control, in our opinion, the following basic principles and methods should be present in the economic entity: effective organizational structure; accounting policy and accounting methodology; the method of keeping assets; an effective internal audit program.

According to N.F.Karimov, "Internal control means internal control of banking activities, unlike external types of control, including regulation by law, control by external control organizations, and the like." From this point of view, the concept of internal control corresponds to the concepts of management control and operational control.

L.V. Sotnikova stated that "Internal control is a system of measures organized by the head of the enterprise in order to ensure that all employees more effectively fulfill their obligations in the implementation of economic operations." B.A.Khasanov admits that "Internal control is a measurement system organized and implemented by the head of the enterprise in order to effectively perform the tasks assigned to all employees in conducting business transactions." B.Q.Khamdamov also emphasizes the above opinion, "Internal control is a constant, daily activity, which, in turn, makes it possible to conduct accounting correctly, to use the company's resources in accordance with the plans of the management." We can say that the above definitions of "internal control" certainly correspond to the current conditions. However, most experts limit themselves to listing the objectives of internal control and ignore its object.

The object of internal control is what the control tools are aimed at. Both the object and the subject of control must be connected to the control. The concept of control object is close to the concept of control object. Therefore, the definition of the object of control depends on the goals of management. The object of control for the purposes of internal control is the means that ensure the reliability of accounting and financial reporting.

As a result of the critical study and analysis of the research works of local and foreign scientists, we propose the following main goals of internal control: 1) ensuring the reliability of the information reflected in the accounting and financial statements; 2) ensuring the preservation of assets and records and performing control actions; 3) to ensure the efficient operation of the enterprise, its stability and development in conditions of intense competition.

The first goal is to ensure the reliability of the information reflected in the accounting and financial statements:

- based on other legal documents on the issues of bookkeeping and financial reporting;

- it is necessary to establish permission from the management for the implementation of all economic operations. This is done by signing primary documents. "Documents that serve as a basis for receiving and issuing money, goods, credit and settlement obligations of the enterprise, institution and organization, as well as accounting reports and balance sheets are signed by the head or by persons designated by him";

- registration of all economic operations carried

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out by the organization with initial accounting documents. Initial accounting documents are drawn up during economic operations or after operations are completed;

- timely registration of economic operations in accounting registers. The persons who drew up and signed the initial accounting documents are responsible for their correct and accurate composition on time, as well as for their submission within the specified periods for reflection in accounting;

- full reflection of all economic operations in accounting;

- transfer of all economic operations to the relevant synthetic and analytical accounts and ensure that the analytical account data match the balance and turnover of the synthetic accounts as of the last calendar day of each month;

- compliance of the economic operations being carried out with the legislation of the Republic of Uzbekistan;

- development of procedures for controlling economic operations and movement of property.

Ensuring the compliance of economic operations with the legislation of the Republic of Uzbekistan and following the procedures for controlling economic operations and property movement, unlike other conditions, cannot be fully provided by the accounting service of the economic entity, which makes it necessary to separate these procedures from the purpose of ensuring the reliability of accounting and financial reporting.

In order to achieve the second objective of ensuring the preservation of assets and records, the following conditions must be met:

- the items of the enterprise's balance sheet should be based on a thorough inventory of assets and liabilities;

- ensuring the safety of funds when storing and transporting them;

- to conclude agreements on financial responsibility with employees of the appropriate category;

- protection of accounting registers from unauthorized corrections. Making unapproved corrections to accounting registers is not allowed;

- ensuring the preservation of accounting and other documents necessary for tax calculation and payment, as well as documents confirming the income received and expenses incurred in the last three to five years. Initial accounting documents, accounting registers, financial reports and other reports, as well as other documents related to the organization and management of accounting are kept by the accounting entity during the periods established by law, but at least five years after the reporting year.

The third goal is the separation of the goal of ensuring the effective operation of the economic entity and its stability, its maximum development in the conditions of economic crisis, and vice versa. used,

some concepts are used interchangeably with others.

In the literature, the concept of "internal control" began to be used in the sense of controlling. In other words, internal control is given other additional functions that are not specific to it. The authors, led by L.R. Rorova, define control as "a separate functional direction of economic work in the enterprise related to the implementation of financial and economic interpretive functions in management for making operational and strategic management decisions." Thus, the main purpose of internal control, which is accepted as a necessary and sufficient condition for the reliability of financial reporting, in our opinion, is only two: 1) to ensure the reliability of the information reflected in accounting and financial reporting; 2) ensuring the preservation of enterprise assets and accounting records.

In the regulatory documents, "Internal control system - control and efficient management of financial and economic activities by the management of an economic entity, ensuring the preservation of assets and accounting documents, preventing and detecting cases of errors and fraud, accounting records is a set of organizational measures, methods and actions (internal control tools) adopted in order to prepare accurate and complete and timely reliable financial information. In the works of Russian scientists, "Internal control system is a set of goals set by the management of the organization for its employees (in the form of job instructions) and concepts followed by the management itself (control environment). This definition includes three elements: a system, goals and concepts, and a system itself is a set of elements and a system of relationships between them. It is emphasized that the main task of internal control is to reduce administrative risks in the day-to-day management of the organization.

According to R.D.Dosmurov, "The internal control system is a set of permanent, daily activities aimed at ensuring the correctness of accounting and reporting and enabling rational use of the company's resources." Yu.T.Dodoboev and E.F.Gadoev "The internal control system is established by the head of the enterprise to ensure the following: 1) effective and orderly operation of the enterprise; 2) ensuring compliance with the policy of the leader; 3) ensuring the preservation of properties; 4) they recognize the definition of "achieving high-quality documentation of operations". K.B.Akhmadjonov stated that "the internal control system of the enterprise is all the laws, measures and measures developed by the enterprise in order to ensure that the enterprise achieves the goals and tasks set for itself, including the task of preparing reliable financial information. is a complex".

Summarizing the above points, we offer the following definition, "Internal control system is organized by the head of an economic entity, effective performance of the duties of management personnel, correct management of financial and economic

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operations in accounting. aimed at improving the efficiency of production, investment, material-technical, financial and labor resources use is the sum of daily actions".

We base our concept on a different definition of the concept of "system". A system is a set of elements that are interconnected by an objective law and together form a whole structure. The main difference is that the internal control system is not a simple set of elements, but a set of interconnected elements based on objective laws. Such an approach allows us to define the interrelationships and interdependencies between its elements when building a model of the internal control system. The basic rules of operation and development of systems have been sufficiently developed in the works of foreign and domestic scientists, but we used it as a starting point for research.

N.F.Karimov applied to the internal control system its "systematic organization consisting of a firm basis, responsibility within the scope of powers, accountability to senior leaders, separation of critical functions, the ability to quickly adapt to changes in internal and external factors, the role of each department and clearly defines the responsibility, appropriately supervises the activities of employees

and understands the periodic evaluation of their work.

Internal control as a means of feedback gives the expected effect only when reliable information is obtained about the state of the entire managed system and methods and means of determining deviations from the intended goals, management instructions and regulatory documents, and when it is used effectively.

A properly organized internal control system creates an opportunity to identify deviations from accepted, approved rules and procedures, as well as to assess their causes and develop the necessary management effects.

Like any system, the internal control system of an economic entity should be appropriate for its dimensions and operational characteristics. In order to confirm the reliability of financial statements in the course of audits in accordance with the standards of auditing activities, the auditing organization "makes a decision based on the results of preliminary studies that the audited business entity can rely on the internal control system during its work activities. necessary". However, studying the internal control system during an audit is a complex, labor-intensive and responsible task.

References:

1. Tulakhodjaeva, M.M. (1998). *Financial control system in the Republic of Uzbekistan*. Monograph. (p.176). Tashkent: World of Economics and Law.
2. Podolsky, V.I., & Savin, A.A. (2010). *Audit*. Textbook. (p.605). Moscow: ID Yupayt.
3. Serebryakova, T.Yu. (2007). *Auditor's journal*. (pp.12-13). Moscow, No. 1.
4. Karimov, N.F. (2006). *Internal audit in commercial banks*. Monograph. (p.263). Tashkent: Science.
5. Hoshimov, B. (2004). *Theory of accounting*. (p.279). Tashkent: Uangi asg generation.
6. (2007). *Audit and control. Fly away. Rosobiya*. Rod pedaksiey doktor ekonomicheskikh nauk M.F. Ovsyichuk. (p.224). Moscow: Knorus.
7. Musaev, H.N. (2003). *Audit. Textbook*. (p.220). Tashkent: Finance.
8. Bobojonov, O., & Jumaniëzov, K. (2005). *Management accounting. Textbook*. (p.368). Tashkent: Publisher of the Literary Fund of the Association of Teachers of Uzbekistan.
9. Belobhesky, I.A. (1994). *Accounting and internal audit*. (p.210). Moscow: Bukhgaltersky uchet.
10. Tulakhodjaeva, M.M. (1998). *Financial control system in the Republic of Uzbekistan*. Monograph. (p.176). Tashkent: Economy and law world.
11. Horngren, Ch.T., & Foster, Dj. (1995). *Accounting account: administrative aspect*. (p.356). Moscow: Finance and statistics.
12. Karimov, N.F. (2006). *Internal audit in commercial banks*. Monograph. (p.263). Tashkent: Science.
13. Sotnikova, L.V. (2001). *Internal control and audit*. Textbook. (p.239). Moscow: Finstatinform.
14. Khasanov, B.A., Aliboev, Z.A., & Zokirova, M.Sh. (2003). *Fundamentals of internal audit automation*. (p.162). Tashkent: "Science".
15. Khamdamov, B.Q. (2005). *Audit economy*. Monograph. (p.210). Tashkent.
16. (2007). *Rules for filling out financial reporting forms. 27.12.2007 of the Minister of Finance of the Republic of Uzbekistan*. Appendix 7 to Order No. 140, Clause 9.
17. (2016). *Law of the Republic of Uzbekistan "On Accounting"*. Tashkent.

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18. (2007). *Rules for filling out financial reporting forms. 27.12.2007 of the Minister of Finance of the Republic of Uzbekistan.* Appendix 7 to order No. 140, item 9.
19. Popova, L.P., Isakova, P.E., & Golovina, T.A. (2003). *Check it out*, Moscow: Delo i servis, 2003, 288 p.
20. (1673). *The national standard of audit activities entitled "Evaluation of accounting and internal control system during audits"*. It was registered in the Ministry of Justice of Uzbekistan on April 12, 2007 with number 1673.
21. (2008). *Basic audit*. Textbook. S. M. Bychkova, A. V. Gazapyan, G. I. Kozlova and dr. Pod ed. Sokolova Ya.V. (p.420). M. Bukhgaltersky uchet.
22. Dusmurov, P.D. (2003). *Fundamentals of auditing*. Textbook. (p.612). Tashkent: National Encyclopedia of Uzbekistan.
23. Dodoboev, Yu.T., et al. (1999). *Audit*. Three. posobie dlya studentov VUZov. (p.281). Fergana.
24. Karimov, N.F. (2006). *Internal audit in commercial banks*. Monograph. (p.263). Tashkent: Science.
25. (1043). *AFMS entitled "Getting to know the activities of the economic entity"*. It was registered by the Ministry of Justice of the Republic of Uzbekistan on June 21, 2001 with number 1043.

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Article



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MODERN MAINTENANCE MODEL FOR MULTI-STOREY BUILDINGS

Abstract: The article presents suggestions and a model for improving the service of multi-apartment houses. High-quality maintenance of high-rise buildings, the creation of all amenities for apartment owners gives beauty to the city. The model presented in the article provides constant control over the activities, expenses and other types of services of the construction and operational organization. The main purpose of the model presented in the article is to eliminate problems on the first and last floors of the building, increase control over the funds paid by apartment owners for services by apartment owners, as well as increase competition between construction organizations.

Key words: Apartment buildings, multi-apartment housing stock, residential buildings, non-residential buildings, housing management, homeowners' association, homeowners, direct management, management organization, model, algorithm, database, repair and restoration service, public-private partnership.

Language: English

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Introduction

Modern construction is developing in Uzbekistan, that is, the construction of high-quality and smart houses. But today's high-rise buildings, as you know, are of poor quality. Currently, multi-storey buildings are provided by a homeowner company. This service should be improved for multi-apartment buildings and building utilities. This article presents proposals and models for providing quality building services.

According to the results of the study, the shortcomings of multi-storey buildings belonging to the association of owners of single housing were revealed.

- appearance of multi-storey buildings is not repaired;
- despite the provision of heating for multi-storey buildings, the level of heating of houses is unsatisfactory;

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- problems in the roofing parts of multi-storey buildings;
- humidity of the basement of multi-storey buildings;
- maintenance of playgrounds around apartment buildings and a number of other similar problems.

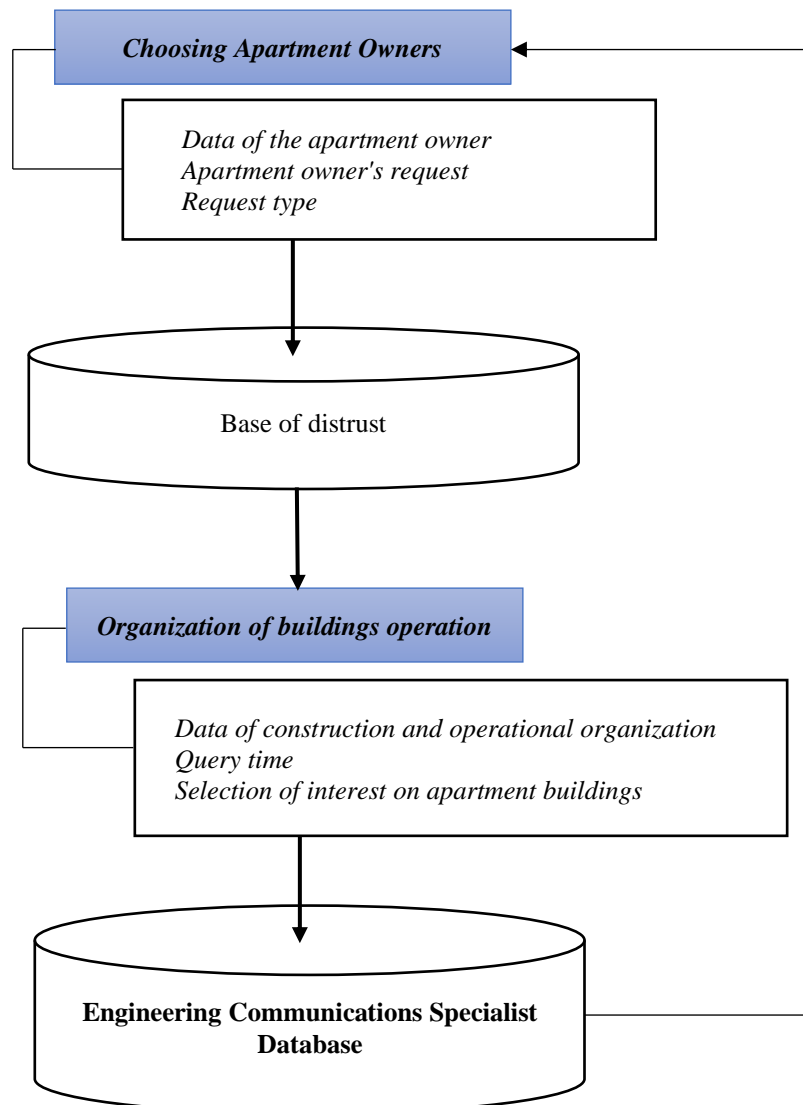
To overcome these disadvantages, there are fixed utility bills for each apartment. Using these means, you can easily solve the shortcomings of each house. But there are several reasons why this is not happening.

We present a model and proposals for the elimination of defects and maintenance of apartment buildings.

- create a system for organizing the construction service and attach houses to it in all regions based on samples;

- online selection of a construction organization once a year based on the choice of the owner of an apartment building;
- creation of a database of construction and service organizations and their connection to the housing database;
- increase in the number of construction and service organizations as a test and create competition between them;
- use engineering communications specialists by setting a number of requirements for the organization of building maintenance and displaying wages in the system;
- the creation of databases of engineering communications specialists serving apartment buildings and the creation of conditions for their work through requests based on this;
- take control of corridors from one building to another and repair them with modern materials;

Picture 1. Main multi-storey building maintenance model



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From these proposals it can be seen that the competition between construction and service organizations for the addition of houses to themselves and the high-quality service of them during the year easily overcomes the above disadvantages. Owners of apartments, based on these tariffs, form their funds monthly at the expense of a house-operating organization. Only then will the problems of apartments on the top floor and apartments on the first floor be solved. The corridors around the apartment buildings from the first house to the second house will be created from modern building materials, and thus the corridors of neighboring houses will become safe corridors for children.

The main function of construction and service organizations is to advertise their services and receive offers, earn interest on apartments per house, then receive service applications and send them to specialists, send an application from specialists to the owner of the apartment and perform the service. The assignment of apartment buildings to a construction organization is carried out according to a system based on the percentage of households that chose a construction organization, that is, the most selected

construction organization. On this basis, competition arises between construction service organizations, and the very origin of this competition testifies to high-quality service.

Conclusions.

The article, written on the topic of the model of the information system for controlling funds allocated for the repair of apartment buildings, shows the control of funds, and this article shows the model of providing high-quality services to buildings. The purpose of this is to monitor the current multi-storey building and introduce high-quality service. Buildings and their surroundings add beauty to the city.

We offer the above model of the information system for monitoring the targeted use of funds of apartment owners focused on the overhaul of apartment buildings.

In conclusion, it is important to note that apartment owners will be aware of utility bills and debt information, as well as how much of the house is being renovated and when, and will also receive information about replenishment of funds and payments during the repair process.

References:

1. Davletov, I.H., & Temirov, D.A. (2018). Some problems in the system of servicing the apartment housing stock in the country. *Economy and finance*, Tashkent, No. 10 (118), pp.25-31.
2. Davletov, I.H., Kurbonov, E.S., Rakhimov, N.E., & Juraev, S.M. (2021). Model of information system for managing funds, repair and operation of apartment buildings. *Vestnik of Science and Practice*, 2021.
3. Saidov, A.A., & Usmanov, J.T. (2017). Algorithmic design model based on data, customs control of cargo at regional railway terminals. *Problems of computational and practical mathematics, gram*, Tashkent, No. 6 (12), pp. 68-71.
4. Bucon, R., & Czarnigowska, A. (2021). A model to support long-term building maintenance planning for multifamily housing uly 2021. *Journal of Building Engineering*.
5. Geipele, I. (n.d.). *Different Approaches to Building Management and Maintenance Meaning Explanation, Procedia Engineering*.
6. Ettaye, G., El Barkany, A., & Elkhalfi A. (2017). Modeling and Optimization a Production/Maintenance Integrated Planning, January 2017. *International Journal of Engineering Research in Africa*.
7. Hossam, H. (n.d.). *Elborombaly*.
8. (2003). *Ain Shams University, Methodology of maintenance for the modern buildings*, Conference: The third international conference of EL Fayoum-2003At: EL Fayoum-2003.

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ISLAMIC FINANCIAL MARKET

Abstract: Islamic banking is banking that is based on principles of Shariah and finds its practical application through the development of the Islamic economy. Islamic banking is based on the principle of partnership between the client and the bank. The article discusses some aspects of the Islamic financial services market.

Key words: Islamic economy, Islamic finance, Islamic banking windows, interest rate.

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Introduction

Companies that do processing or licensing of bank cards management systems have long supported the main rule of Islamic Finance (IF) according to which a bank cannot issue a loan and charge interest. The logic of credit cards is not applicable here, and therefore other ways of managing card accounts are implemented. They allow cardholders to use the bank's funds, and the bank to receive income in the form of fees for opening, issuing and maintaining an account.

Most people still did not fully understand the concept of IF and more often than even it is associated with service that is available only to Muslims. However, it is absolutely not the case. Any financial institution and any individual can work on IF principle.

The essence of Islamic Economics is, first of all, refusal of interest rate and futures transactions. The concept of project investment is the closest methodology that fits. Project investment is associated with risk division and equity participation. Bank does not gain interest rate but studies the person who came asking for help, his business plan and analyses the risks.

There is another concept which is called Islamic insurance. The main principle of Islam as a method of determining the approach to the objective world including labor processes. The main concern is not to

allow games with time and not to allow future (not yet lived time) to be mortgaged in favor of some speculators. For example, there is ban on sale of a crop of wheat that has not been grown yet however this practice is quite common in the Western countries.

Islamic society is fundamentally oriented towards the real economy at the level of official laws as well as of society. Set to real production and set to keep your own time from being speculated.

Islamic banking is developing dynamically in Europe, especially in the United Kingdom. In the UK not only Islamic banks are operating but also Islamic windows in conventional banks (e.g. Citibank, Barclays).

There is concept of Halal money which is permitted by Shariah that does not bear stamp of crime (by Shariah). Dynamics of Islamic banking development effectively competes with dynamics of developments of conventional banks.

Market of Islamic financial services is developing at a rapid pace: in the period from 2006 to 2011 the average annual growth of global Islamic financial assets was 18.82% [1].

Leading positions are occupied by Islamic banks which have now accumulated from 900 billions to 1 trillion USD [2] or more than 90% of Islamic financial assets [3]. Financial crisis of 2008 has questioned advantages of western financial system. Despite that

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or conventional financial institutions and instruments are still dominating.

Its noteworthy that even in financial markets of Muslim countries share of Islamic banks is relatively small on average: less than 20% of banking assets of Muslim countries [4] and about 1% of global banking assets [5].

The value of the market of Islamic financial services in general and Islamic banks in particular is estimated ambiguously.

An Islamic bank is a financial institution that accepts deposits and allocates borrowed funds in accordance with the principles that are expressed in the prohibition of interest on loans, speculations and such contractual conditions, under which uncertainty arises and one party receives excessive advantages at the expense of the other [9].

These principles correspond to Muslim ideas about justice (non-exploitative) distribution of income in society: a person who receives income must take part in the labor process and risk his property [10], and earning money on money is unacceptable.

From an organizational and legal point of view, the necessary conditions for the operation of Islamic banks are the following:

- the presence of a Sharia supervisory board, designed to ensure that all operations comply with Sharia requirements;
- the ability to carry out banking operations on the basis of Islamic financial principles (including observing the prohibition of loan interest);
- the absence of legislative restrictions on the participation of banks in trading operations and on the distribution of profits (loss) with customers.

Ensuring such conditions requires a special approach to the regulation of Islamic banks and three models are implemented in practice, in which:

- 1) banking legislation is built in accordance with the requirements of Sharia (Sudan, Iran and Pakistan);
- 2) the activities of banks are regulated by general banking legislation, and Islamic - by special laws (such banking systems operate in Malaysia, Bahrain, Turkey, Kyrgyzstan, Kazakhstan, etc.);
- 3) the activities of Islamic banks are regulated within the framework of general banking legislation, this model is typical for most Western countries where Islamic banks are represented, for example, Great Britain, Switzerland, and the USA [13].

There are two levels in the structure of the Islamic banking system:

- 1) transnational non-profit organizations that promote the development of Islamic banks (the key institution of this level is the Islamic Development Bank, which provides various support to Islamic financial institutions, including acting as a financial intermediary, accepting deposits and placing funds in accordance with Sharia requirements);
- 2) commercial organizations which are represented by:

a) commercial Islamic banks main goal of which is to make a profit by providing Sharia-compliant banking services;

b) specialized Islamic banks created to solve specific problems (agricultural, industrial banks, etc.);

c) Islamic banking windows in conventional banks, where an important condition for the operation of such units is "self-sufficiency as an Islamic financial intermediary" [14].

Unlike conventional banks, the financial intermediation of Islamic banks is based on a share in the profit (loss) from transactions with real assets. An Islamic bank provides and raises funds on specific terms: no interest rates are allowed on either loans or deposits.

To the greatest extent, the concept of participation in profits and losses corresponds to the instruments of equity project financing of Mudaraba and Musharaka, the urgent nature of which does not allow them to be classified as equity financial instruments in the strict sense of the word [16].

Active operations of Islamic banks on interest-free debt financing are formalized with such basic financial instruments as Murabaha, Salam, Istisna. They are not directly related to the concept of profit and loss sharing, but are based on transactions with real assets and therefore exclude the exchange of money for money.

In Uzbekistan Islamic finance is represented by the projects of the Islamic Development Bank for the development of the private sector, which has been successfully cooperating with IpakYuli Bank for a long time. Financing is carried out in the form of providing banks with financing lines to provide guarantees according to the principles of Murabaha.

This is one of the most common methods for conducting interest-free transactions used by banks in Muslim countries. Murabaha is an active client financing operation and is suitable for a variety of purchases from equipment to business buildings.

The principle of its operation is simple: the client agrees on the conditions for acquiring the necessary goods and applies to the bank, which, in turn, buys the goods and resells it to the client in installments with its own margin.

First attempts are being made to introduce Islamic finance tools in Uzbekistan: a legal framework is being formed.

The new version of the bill "On non-bank credit institutions and microfinance activities" developed by the Central Bank of Uzbekistan provides for the provision of services by microcredit organizations based on the principles of Islamic finance.

The document is currently under consideration by the Legislative Chamber of the OliyMajlis.

Along with this, the government created an interdepartmental working group on the organization of Islamic finance, headed by the Ministry of Investment and Foreign Trade. International experts

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were involved in the working group in cooperation with the Islamic Development Bank.

In the current legislation, in order to introduce Islamic financial principles into the activities of banks, it is necessary to amend a number of documents in accordance with international experience and standards of the Islamic Financial Services Board (IFSB).

These are, first of all, the Civil and Tax Codes, the laws "On the Central Bank", "On Banks and Banking", "On Guarantees of Citizens' Deposits in Banks", "On Mortgage", "On Leasing", "On Pledge".

Islamic finance attracts the attention of not only clients, but also regulators, as it is built on the principles of honesty and integrity, and is socially oriented.

Worldwide out of almost 500 Islamic financial institutions, 359 operate in the form of full-fledged Islamic banks, and 141 operate in the form of an "Islamic banking window" created under conventional banks.

A number of commercial banks in Uzbekistan have begun preparing to provide financial services based on Islamic banking by organizing Islamic banking windows in addition to their conventional banking activities. In particular, these are Qishloq Qurilish Bank, Agrobank, Turon Bank, Trustbank, Kapitalbank and Asia-Alliance Bank.

Islamic banking implies activities of the bank that comply with the principles of Sharia, and its practical application through the development of the Islamic economy, can attract up to \$10 billion annually to Uzbekistan if the necessary legislative norms appear.

In July 2018, Ipak Yuli Bank had announced the launch of a pilot project to create an "Islamic banking window" in cooperation with the Islamic Corporation for the Development of the Private Sector (ICD), a subsidiary of the IDB.

Islamic banking windows are one of the instruments of Islamic banking, an alternative type of financial services that comply with the principles of financing, which is widely used in the countries of Southeast Asia and the Middle East.

The main feature of financial services in Islamic banking is the rejection of loan interest, high-risk transactions and transactions with uncertainty.

Islamic finance is a new financial sector in Uzbekistan. In this regard, both the population and

commercial banks have developed different ideas, based only on theoretical knowledge and experience in other countries.

Winning people's trust in Islamic finance will naturally contribute greatly not only to the development of the field of Islamic finance but the entire financial system. Therefore, the launch of Islamic banking windows which are the first step in the field of Islamic finance, based on the principles of full Islamic finance, will further increase the country's achievements in the financial sector.

The President of the Republic of Uzbekistan Shavkat Mirziyoyev, in his address to the Oliy Majlis at the end of 2020, noted that the time has come for the organization of Islamic financial services and it is necessary to create an appropriate regulatory framework. In this process, an important role is assigned to the Islamic Development Bank.

Permitting procedures for the use of Islamic banking windows in different countries are different.

So, in Malaysia (for retail banking services), in Qatar and Lebanon, Islamic banking windows are not allowed only full-fledged Islamic banks are licensed.

In Ethiopia, only Islamic banking windows are allowed, and full-fledged Islamic banks do not work.

In Oman, the use of banking windows is only allowed for private business.

In other countries of the world where Islamic banks exist, financial institutions are allowed to open Islamic banking windows as well.

Islamic banking windows are allowed in Pakistan along with Islamic banks and conventional banks must obtain written permission from the Central Bank, providing information on training and marketing activities.

In Bangladesh, it has been decided not to open Islamic banking windows by either Islamic or banks until the Central Sharia Council is formed.

If legislation on Islamic finance is created in Uzbekistan, the country can attract up to \$10 billion in additional investments annually. Introduction of Islamic banking in Uzbekistan will also help attract additional resources from the population.

It is advisable to develop a roadmap for the phased introduction of Islamic finance in Uzbekistan, which provides for the training of specialized specialists and improving the overall financial literacy of the population.

References:

1. (n.d.). *Top 500 Islamic Financial Institutions by The Banker*. Retrieved from <http://top500islamic.thebanker.com/index.cfm?f>

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2. (n.d.). *Islamic Development Bank 37th Annual Report, 1432N (2011-2012)*. Retrieved from http://www.isdb.org/irj/go/km/docs/documents/IDBDevelopments/Internet/English/IDB/CM/Publications/Annual_Reports/37th/AnnualReport37.pdf
3. (2012). *Islamic Finance. March 2012*. London: The UK Islamic Finance Secretariat (UKIFS). Retrieved from <http://www.londonstockexchange.com/specialist-issuers/islamic/downloads/city-uk-if-2012.pdf>
4. Beck, T., Demirgüç-Kunt, A., & Merrouche, O. (2010). Islamic vs. Conventional Banking: Business Model, Efficiency and Stability. *WB Policy Research Working Paper № 5446*. 2010. Retrieved from http://econ.worldbank.org/external/default/main?pagePK=64165259&theSitePK=469372&piPK=64165421&menuPK=64166093&entity.ID=000158349_20101018092550
5. (n.d.). *Islamic Development Bank 36th Annual Report, 1431N (2010-2011)*. URL: Retrieved from http://www.isdb.org/irj/go/km/docs/documents/IDBDevelopments/Internet/English/IDB/CM/Publications/Annual_Reports/36th/AnnualReport36.pdf
6. Mirkin, Ya. (2002). *Russian securities market: the impact of fundamental factors, forecast and development policy*. (p.624). Moscow: Alpina Publisher.
7. Qur'an, T. (2008). *Islamic economic thought and Islamic economics. Christianity and Islam about economics*. ed. M. A. Rumyantseva, D. E. Raskova. (pp.279-304). SPb..
8. Ariff, M. (n.d.). *Islamic Banking*. Retrieved from http://www.islamicity.com/finance/IslamicBanking_Rationale.htm
9. Bijur, D. (n.d.). *Islamic Finance: From niche to Mainstream*. Retrieved from <http://news.bbc.co.uk/2/hi/business/6483343.stm>
10. Ivanov, V. V., Kanaev, A. V., Sokolov, B. I., & Topprover, I. V. (2007). *Credit Theories*. (p.410). St. Petersburg: Publishing House of St. Petersburg. un-ta.
11. (1456). *Big encyclopedic dictionary*. 2nd ed., revised. and additional Moscow: Great Russian Encyclopedia. (p.1456). St. Petersburg: Norint.
12. Bekkin, R. I. (2007). Islamic model of interest-free economy and modernity. *Vestn. St. Petersburg. university Ser. 5: Economy*, No. 2, pp. 79-89.
13. Bekkin, R. I. (n.d.). *Islamic economic model: prospects for implementation in the Muslim and non-Muslim communities*. Retrieved from <http://www.takafol.ru/arts.php?art=29>
14. (2007). *IFSB-5 Guidance on key elements in the supervisory review process of institutions offering Islamic financial services*, 2007. Cl. 56. Retrieved from <http://www.ifsb.org/standard/ifs5.pdf>
15. Bekkin, R. I. (2008). *Islamic economics: a short course*. Moscow: ASTVostok-Zapad.
16. Baele, L., Farooq, M., & Ongena, S. (2010). *Of Religion and Redemption: Evidence from Default on Islamic Loans*. Retrieved from <http://www.istfin.eco.usi.ch/ongena-139141.pdf>
17. Sudin, H., Van, N., & Van, A. (2012). *Islamic financial and banking system: philosophy, principles and practice*. (p.536). Kazan: Linova-Media.
18. Hasan, M., & Driddi, J. (2010). *Put to the test. Finance & Development*. December 2010. Retrieved from <http://www.imf.org/external/pubs/ft/fandd/2010/12/Hasan.htm>
19. Trunin, P. V., Kamenskikh, M. V., & Muftyakhetdinova, M. (2009). *Islamic financial system: state and development prospects*. Moscow: Institute for the Economy in Transition.
20. (2010). *Finance: textbook*. S. A. Belozеров, G. M. Brodsky, S. G. Gorbushina [and others]; resp. ed. V.V. Kovalev. 3rd ed., revised. and additional. (p.928). Moscow: Prospekt.

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TOPICAL ISSUES OF DEVELOPING A MARKETING STRATEGY FOR THE DEVELOPMENT OF COMPANIES IN THE SERVICE SECTOR

Abstract: Effective use of marketing strategies is associated with understanding the transformation of the basic complex and the allocation of additional elements that will allow the organization to function more productively in the market. Marketing strategies are connected with the definition of the target market, assortment policy, price, choice of location, atmosphere and promotion of the enterprise (its products), other activities. The development and implementation of a marketing strategy contributes to improving the efficiency of the organization, its development in the near future, therefore, the stated topic of the final qualifying work is relevant. The subject of the study is organizational and economic relations in the process of developing and implementing a marketing strategy of service enterprises. Research methods. The research work used methods of grouping, abstract-logical thinking, monographic, comparison, comparative analysis, expert evaluation, questionnaires, economic-mathematical, statistical, cluster analysis, step-by-step analysis. The purpose of the study is to consider the problems of developing a marketing strategy for the development of a company in the service sector system.

Key words: marketing strategy, service marketing, consumer attention, struggle policy, competitiveness.

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Introduction

Currently, the role of marketing in the activities of any commercial organization is extremely large. Such indicators of the enterprise as the level of sales, profitability, profitability and others depend on the chosen direction of marketing activity. The company's strategy plays a decisive role in conducting marketing activities. The clearest definition of the marketing strategy of the enterprise, as well as the following and control over its execution helps the organization to achieve the best results.

In an unstable external environment, the relevance of developing a clear marketing strategy that would meet the conditions of the market and the internal component of the organization is beyond doubt. Often, over time, the marketing strategy that was determined at the initial stage of the organization's development is not suitable for the enterprise due to constantly changing market

conditions. An incorrectly chosen strategy does not allow the company to achieve the planned indicators. In this regard, there is a need to develop a marketing strategy of the enterprise. Playing a significant role in the development of the enterprise, the marketing strategy is also an important element of it. The development of measures for the implementation of a marketing strategy is an integral part of entrepreneurial activity. One of the global trends in the modern economy is the phenomenal growth of services provided. In the context of deepening globalization and growing digitalization of the economy, special attention is paid to the rapid development of the service sector. "While the share of this industry in global GDP averages 65%, this figure is 80% in the US and 70-75% in the European Union." According to the practice of developed countries, such as the USA, Germany, Great Britain, Japan, South Korea, marketing strategies are effectively used in the

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context of investments, which is considered as one of the promising goals of human development. This, in turn, demonstrates the relevance of the widespread use of marketing activities, especially marketing strategies, in the practice of ensuring a high level of socio-economic development.

In the context of the rapid development of the digital economy in the world, special attention is paid to research aimed at improving marketing strategies to ensure the competitiveness of products and services, especially in the targeted and differentiated implementation of services. One of the priorities of the research is to increase consumer satisfaction with the quality of services by increasing the diversification of products, the widespread introduction of innovative technologies in marketing approaches, the diversification of services and marketing research to ensure their competitiveness.

The level of knowledge of the problem.

Scientific, theoretical and methodological problems of the development of the service sector, including the activities of service enterprises, are presented by foreign scientists: Avanesova G. A., Ansoff I., Bagsht K., Balaeva O. N., Beredina I. S., Best R., Gamble P., Jordan M., Janster P., Doyle P., Dixtl E., Kotler F., by Keller K. L., Lovelock K., Lamben S., Minett S., Owen R. and have been studied in the scientific works of others.

Scientists from CIS countries Gamayunov B. P., Golubkov E. P., Morunov A. S., Nedyakin M., Perminov S. M., Romanenkova O. N., Sineeva I. N. and others were studied in the scientific works of other scientists.

In recent years, scientific work has been carried out on the use of marketing strategies at service enterprises in our country Abdurakhmonov K. H., Akhunova G. N., Bekmuradov A.S., Boltabaev M.R., Ikramov M. A., Ziyaeva M. M., Nabiev D. H., Pardaev M. K., Tukhliev I. S., Fattakhov A. A., Khakimov Z., Ergashkhodzhaeva Sh. J., Kosimova M. S., Yusupov M. And this is reflected in the scientific research of other scientists.

At the same time, it should be noted that issues related to solving social problems in the republic, employment of its population, expulsion from poverty, the systematic creation of services to meet the ever-growing material and spiritual needs, the development of its marketing strategy, have not been given sufficient attention by specialists and scientists. This situation determines the need for scientific research in this direction.

The subject of the study is organizational and economic relations in the process of developing and implementing a marketing strategy of service enterprises.

Research methods. The research work used methods of grouping, abstract-logical thinking, monographic, comparison, comparative analysis, expert evaluation, questionnaires, economic-

mathematical, statistical, cluster analysis, step-by-step analysis.

The practical results of the study are as follows:

- the improvement of the services market in the context of the development of competition is based not only on the provision of services, but also on the provision of employment and poverty reduction;
- based on the need to develop a medium- and long-term marketing strategy aimed at identifying opportunities for the development of a service sector enterprise and additional financing;
- the justification of the marketing strategy for the development of services by districts is based on the appropriateness of using the cluster analysis method.

Reliability of the results of the study. This is due to the fact that all the data used in the study were obtained from relevant official sources, and the methods used in the study were objective. The reliability of the research results is determined by the expediency of the approaches and methods used, official sources of information, including the State Statistics Committee of the Republic of Uzbekistan, reports of enterprises of the Ferghana region, the use of information collected on the basis of questionnaires, conclusions and suggestions are put into practice by statistical agencies and service enterprises.

Analysis and results.

What is the marketing strategy? Do I need a strategy at all? – unambiguous answers to these questions have been recognized as controversial in recent years. And despite the many books written about the importance of strategy, there are many theorists and practitioners of domestic business who question the need to form a strategy for companies, explaining their position by the very rapid dynamics of business development. The same topic was addressed by Alt researchers who studied the experience of fast-growing Eastern European companies, among which there are many companies in the service sector. That's what the first persons of successful enterprises told them. "We don't have a document called strategy. We have a rapid response strategy." Such a strategy allows these companies to develop dynamically: "We are smaller, we are faster and more flexible."

For fast-growing companies in the service sector, as the researchers note, such strategic guidelines are characteristic:

- The desire to go your own way, to build a business and a company as you see fit, often contrary to established traditions and rules. The motto is we are different. Example: the ARCHICAD software product developed by Graphisoft radically changed the work of architects, allowing them to switch from modeling a two-dimensional image of the projected object to a three-dimensional one. In addition to the company's

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presence in the three largest global markets, almost half of its revenue comes from small markets that usually go unnoticed by industry leaders.

- Developed partner networks. Small and medium-sized companies do not have enough resources to build their own extensive sales network, so companies are trying to expand their business by attracting partner networks.

- It is necessary to follow the planned strategic goals and implement the planned strategy. The classic formula of McDonald's success: cleanliness, speed, high standards – allowed this company to lead the fast food market for a long time. Many experts associate the crisis in this company with a deviation from the chosen strategic guidelines.

Strategic competitive advantages of the most successful service companies

- The first and very important key to the success of a service company is the price. The price of the service affects the expectations of potential customers and the feelings and perception of services by real customers. The price allows you to create rose-colored glasses, wearing which people evaluate the quality of service. Customers may like the low price: it reflects what we can afford now. But even trying to save money and paying tribute to a reasonable price, we are unlikely to be satisfied with the quality of such a service – we will have a feeling that it could have been better. All residents of Tashkent and Samarkand, of course, know the conceptual restaurants of Turkish cuisine; the high prices of these establishments do not scare away visitors, they tempt them. When a customer can afford to visit such a restaurant, he will definitely do it. Also, the high price affects the perception, increasing customer satisfaction. In most cases, the reduction of prices for the service is unjustified, companies cannot withstand the price race and die. The alternative to lowering prices is the best work of sellers. Another option for solving the issue of "low prices" is the formation of "packages of services" of various costs. This is what mobile operators do, offering us various options for tariff plans.

- The second key strategic advantage for service companies is the brand. Brands survive primarily because the image of the company is maintained by the constant quality of service. We will find standard quality products and service anywhere in the world at McDonald's restaurant. This consistency is highly appreciated by customers. According to foreign researchers, customer satisfaction from using the services of a company with a well-known brand is greater. Build your brand, services are sold thanks to the customers' faith in them and brands create this faith. Unfortunately, there are not so many among the national companies of Uzbekistan who can be cited as an example of a successful brand builder. One of the most consistent and "advanced" in this direction is the fast food restaurant chain EVOS. The cost of brand

promotion is often estimated by experts at millions of dollars. Not many people can afford such costs, but many can become an EVOS partner by purchasing a franchise of this chain restaurant. Acquire a brand, create it, or become a partner of someone who has it.

Tactical marketing planning

Which of the specific marketing "moves" are used by most successful companies?

- *Firstly*, it is a focus on long-term relationships with the client. We often hear this phrase, but we don't always imagine how a company employee should behave in order to emphasize the priority of customer interests. Most often, you can make a client feel important to your company by providing him with additional advice or information on your services. A huge menu, unknown ways to clean clothes – in this new information, the client needs to navigate and choose something that will not disappoint him. How often in a Japanese restaurant, when I ask what this or that exotic product tastes like the most, the waiter says "I don't know".

- *Secondly*, the most successful companies plan considerable budgets for training employees interacting with customers. The trainers focus on the ability of employees to speak clearly without using professional jargon, and the ability to identify the needs of the client.

- *The third* important rule of forming a loyal customer base is the selection, sorting and termination of customer relationships that do not correspond to the characteristics of the target group. For an advertising agency, for example, the history of a client's relationship with companies of a similar profile is extremely important. If the customer company often changed partners among advertising agencies, then the forecast for working with this client is negative.

- *The fourth* point is the formula that ensures the emergence of trust in your company from the client (the author of the formula is Harry Beckwith):

Consistency / predictability + Meeting deadlines + Non-disclosure of client information.

- And finally, the fifth rule of successful marketing tactics used by many companies is a well-developed "packaging" of the service. The client is fascinated by the appearance, he feels comfortable only where there is beauty. It is known that consulting companies spend up to 8% of the cost of contracts on the design and decoration of the company's office. Many were impressed by the new, individually designed offices of MURATBUILDING skyscrapers, from whose huge windows you can admire the views of Tashkent. Clients are pleased to be in such an

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office, it is pleasant to leave orders to this research agency.

As a result of the study and analysis of scientific literature, the author identified such concepts as service, service, service market, service, their content and essence. In the practice of developed countries, there is never any dependence between "service" and "service", it is accepted as a single economic category. However, in developing countries, including Russia and Uzbekistan, giving these terms a confusing definition, the service sector has been brought to the point that its place in the economy is not clearly defined. Also in the official documents of our state there are "service" and "service", which are used in the same way as in different categories.

According to the author, "service" and "service" are based on the fact that it makes sense to express the same content and it is not acceptable to compare them with each other. A service is a type of economic activity, and the provision of a service refers to the process of its implementation. For this reason, in scientific, practical and methodological terms, it is based on the need to consider it as "a service – an activity or process carried out to meet the needs of the second object."

The less materiality there is in services, the more service marketing differs from brand marketing. Evaluation of intangible services can be carried out only after they are received, but only because different factors affect them differently, it is impossible to evaluate them as monotonous. For this reason, there are specific aspects of the marketing concept in the service sector enterprises, it is necessary that each service provider or entrepreneur takes it into account.

Based on the holistic marketing concepts in the dissertation, the expediency of organizing market activities by service companies through the coordination of marketing activities of varying complexity and competence (competence) was substantiated. The use of holistic marketing, which is considered a modern marketing concept, allows each service organization or business activity to ensure that the activities carried out among themselves are aimed at satisfying the desires and desires of a person, that is, the consumer.

The results of the theoretical study allowed us to determine the general patterns of development of service enterprises in the dissertation from the point of view of marketing, they are as follows:

- the demand for the quality and culture of the services provided is increasing. In particular, the requirements for the Internet and the mobile communication system must be adapted by service providers in changing conditions;
- increase in the rate of revenue from the service sector as costs rise;

- monitoring the decrease in the number of primary consumers at a time when consumption volumes are increasing;

- convergence of service enterprises and increased coverage;

- the range and types of services offered.

In the economic literature, services differ from goods mainly by four characteristics:

- inconspicuous;
- the development and consumption of the service is carried out simultaneously;
- variability of the client's attitude to the quality and culture of service;
- unsuitability for storage.

But with the change of life, the characteristics of services also change. For this reason, we found it expedient to release four functions in 8 units.

The last feature, that is, the inability to store services, is currently characterized by the ability to maintain the same services. For example, the storage of information and knowledge in the field of education and ICT, the possibility of transferring offspring to offspring, the formation of individual property, etc.

In conclusion, it should be noted that the use of marketing strategies for the development of the service sector requires adaptation to the trends in the development of the digital economy.

During the work on the dissertation, it was found that the marketing strategy that ensures the development of service sector enterprises should adhere to the following printouts:

- priority solution of social problems in the region, that is, ensuring employment (unemployment in the Ferghana region is 9.7 percent), exclusion from poverty, assistance in the formation of the family budget;

- ensuring differentiation of types of services and their competitiveness, formation of consumer culture among the population;

- satisfaction of the wishes of the population by reducing the cost of services and alternative prices by reducing costs;

- the development of service sector enterprises should be aimed at generating income based on meeting the needs of domestic and foreign markets; widespread use of the 8 "p" concept of Bund marketing;

- increasing the level of suitability of services in the conditions of the formation of the digital economy, such services should be carried out mainly at the expense of ICT, banking, transport, educational and other services;

- increased use of freelancing and self-employed methods by service sector enterprises to ensure efficient use of primary local resources;

- it should serve to harmonize the marketing of goods and services, accelerate the process of integration of economic sectors, and ensure synergetic efficiency.

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The competitiveness of enterprises is the basis for obtaining advantages in the market, which requires the use of marketing tools in solving this problem. In this regard, in order to achieve the goal, in our opinion, it is necessary to develop a strategy, including marketing. In the practice of marketing services, a competitiveness strategy is very often used. This is due to the fact that when changing a position in the market or its protection (in the presence of different markets and competitive conditions), it is necessary to comprehensively take into account all the factors affecting its changes.

There are two options for choosing a competitive strategy. Firstly, these are local elements, by which we understand the reflection of the sphere of activity of service enterprises and denoting resource opportunities.

Secondly, this is the main element – it is the position of the enterprise in the market of services, which has a dynamic characteristic.

The elements of the marketing strategy (ME_n) are the following: targeted market research (ME₁), positioning (ME₂), pricing policy (ME₃), commodity policy (ME₄), distribution policy (ME₅), communication policy (ME₆).

The elements of the marketing strategy of service companies serve not only to achieve marketing goals, but also serve as a point of future growth. However, there is a major problem, which is that enterprises cannot develop the right development strategies.

Conclusion

There are various classifications of the definition of marketing strategies, which can be systematized as follows; marketing strategies depending on market demand (MS₁); strategies of competitive advantages according to M. Portetre (MS₂), marketing strategies for the product lifecycle (MS₃); strategies of adaptation to competition according to F.Kotler (MS₄); marketing strategies based on the BCG matrix (MS₅); differentiation strategies (MS₆).

The diversity of market conditions, as well as marketing tools that form a competitive strategy, form various combinations in a complex. When choosing a strategy, it is necessary to take into account the resources of the enterprise, as well as the willingness of management to risk.

References:

1. Abdullaev, A. M., et al. (2020). Challenges of coping with the economic consequences of the global pandemic COVID-19. *ISJ Theoretical & Applied Science*, 05 (85), 1-5. Doi: <https://dx.doi.org/10.15863/TAS.2020.05.85.1>
2. Abdullaev, A., et al. (2020). *The issue of a competitive national innovative system formation in Uzbekistan*. In E3S Web of Conferences (Vol. 159, p. 04024). EDP Sciences. Retrieved from <https://doi.org/10.1051/e3sconf/202015904024>
3. (2010). ACRL Research Planning and Review Committee. Top ten trends in academic libraries: A review of the current literature. *College & Research Libraries News*, 71(6), 286-292.
4. Akar, E., & Topcu, B. (2011). An examination of the factors influencing consumer's attitudes toward social media marketing. *Journal of Internet Commerce*, 1(10), 35-67. Retrieved from <https://doi.org/10.1080/15332861.2011.558456>
5. Borisova, A. A. (n.d.). *Etapyi razrabotki marketingovoy strategii*. Instrumentyi i mehanizmy formirovaniya konkurentosposobnoy gosudarstvennoy i regionalnoy ekonomiki: sbornik statey po itogam.
6. Boychenko, A. N. (2018). *Marketingovye strategii sovremennogo predpriyatiya: vid i ih suschnost*. Vyizovyi vremeni i veduschie mirovye nauchnyie tsenryi: sbornik statey Mejdunarodnoy nauchno-prakticheskoy konferentsii. Ufa: Omega Sayns.
7. Boyko, I. (2003). Tekhnologicheskije innovatsii i innovatsionnaya politika [Technological innovations and innovation policies]. *Voprosy ekonomiki, Problems of Economics*, 2: 141-144. Retrieved from <http://elibrary.ru/item.asp?id=18242193>
8. Bragin, L. A., & Danko, T. P. (2015). *Torgovoe delo: ekonomika i organizatsiya*: uchebnik. Moskva: INFRA-M.
9. Danny, S. (2019). *Vision 20/20 "The secrets of digital marketing and its role in growing your business"*. ISBN: 9781686615818 - Retrieved from <https://websitedepot.com/wp-content/uploads/2019/08/vision-2020-by-danny-star.pdf>
10. (2021). Datareportal. Retrieved February 15, 2021 from <https://datareportal.com/global-digital-overview>

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SJIF (Morocco) = 7.184

ICV (Poland) = 6.630
PIF (India) = 1.940
IBI (India) = 4.260
OAJI (USA) = 0.350

11. Denis, D. (2020). *10 Biggest Content Marketing Trends that Will Dominate 2020*. Retrieved from www.coredna.com/blogs/content-marketingtrends Doi: <https://doi.org/10.5281/zenodo.6475830>
12. Doyl, P. (2016). *Menedjment: strategiya i taktika*. Sankt- Peterburg: Piter.
13. Drozdova, E. S. (2012). *Marketingovyie strategii: printsipyi klassifikatsii*. Transformatsiya regiona v usloviyah globalizatsii ekonomicheskogo razvitiya: sbornik nauchnyih trudov po materialam Mejdunarodnoy nauchno-prakticheskoy konferentsii. Moskva: Ilekta.
14. Gitelman, A. D. (2016). *Preobrazuyuschiy menedjment: lideram reorganizatsii i konsultantam po upravleniyu* : ucheb. posobie. (p.499). Moskva: Delo.
15. Gollay, I. N. (2015). *Soderzhanie ponyatiya «strategiya razvitiya predpriyatiya»*. Nauka YUURGU: materialy nauchnoy konferentsii, Chelyabinsk: Yujno-Uralskiy gosudarstvennyy universitet.
16. Golubkov, E. P. (2015). *Osnovyi marketinga*: uchebnyk. Moskva: Finpress.
17. (2021). *GWJ Social flagship report Q3 2020 - GlobalWebIndex* - Retrieved February 15, 2021 from <https://globalwebindex.com>
18. Kilens, M. (2019). *State of conversational marketing*. Retrieved from <https://www.drift.com/blog/state-of-conversational-marketing/>
19. Kim, A. J., & Ko, E. (2012). Do social media marketing activities enhance customer equity? An empirical study of luxury fashion brand. *Journal of Business Research*, 65(10), 1480-1486. <https://doi.org/10.1016/j.jbusres.2011.10.014>
20. Kolchina, N.O. (2013). Marketing obrazovatelnykh uslug [Marketing of educational services]. *Integratsiya obrazovaniya, Integration of Education*, 4: 48-51. Retrieved from <http://elibrary.ru/item.asp?id=20879311>
21. Kurpayanidi, K. (2022). Integration of innovation and information and communication technologies as a source of economic transformation. *Ekonomika I sosium*, 9 (100).
22. Kurpayanidi, K. I. (2020). Some issues of macroeconomic analysis and forecasting of the economy of Uzbekistan. *Iqtisodiyot va innovatsion texnologiyalar. Ilmiy elektron jurnali*, 2, mart-aprel, 100-108.
23. Kurpayanidi, K. I. (2021). Financial and economic mechanism and its role in the development of entrepreneurship. *ISJ Theoretical & Applied Science*, 01 (93), 1-7. Doi: <https://dx.doi.org/10.15863/TAS.2021.01.93.1>
24. Kurpayanidi, K. I. (2021). Stimulation of foreign economic activities of entrepreneurship on the basis of innovative development. *ISJ Theoretical & Applied Science*, 01 (93), 8-13. Doi: Retrieved from <https://dx.doi.org/10.15863/TAS.2021.01.93.2>
25. Kurpayanidi, K., & Ilyosov, A. A. (2022). *Sanoat maxsulotlari jeksportining tashkiliy-iktisodiy mehanizmlarini takomillashtirish (Fargona viloyati sanoat tarmogi misolida)*. Zenodo. Retrieved from <https://doi.org/10.5281/zenodo.6618980>
26. Kurpayanidi, K. I. (2022). Scenarios of investment and innovation policy in the light of institutional transformation. *ISJ Theoretical & Applied Science*, 04 (108), 1-11. So: <http://s-o-i.org/1.1/TAS-04-108-1> Doi: <https://dx.doi.org/10.15863/TAS.2022.04.108.1>
27. Kurpayanidi, K. I. (2022). *Trends in the development of small and medium-sized businesses in the region: foreign experience based on the materials of the Russian*.
28. Kurpayanidi, K. I., & Abdullaev, A. M. (2018). Actual issues of the functioning of an innovative industrial enterprise. *ISJ Theoretical & Applied Science*, 11(67), 74.
29. Kurpayanidi, K.I. (2022). K voprosam metodologicheskikh podhodov issledovaniya institutsionalnoy sredy malogo predprinimatelstva. *Byulleten nauki i praktiki*, 9 (82).
30. Kurpayanidi, K.I. (2022). Voprosy sovershenstvovaniya organizatsionno-ekonomicheskogo mehanizma razvitiya chastnogo predprinimatelstva. *Horazm Maymun Akademiyasi Ahborotnomasi - Vestnik Horezmskoy Akademii Maymuna*, 1(85), 89-93. Doi: <https://doi.org/10.5281/zenodo.5940010>
31. Kurpayanidi, K.I., & Mamurov, D.E. (2022). *Management of innovative activity of business entities in industry*: monograph, Fergana polytechnic institute. AL-FERGANUS.
32. Mander, J., & Kavanagh, D. (2019). *GlobalWebIndex's flagship report on the latest trends in social media*. Retrieved from <https://www.globalwebindex.com/reports/social>
33. Margianti, E. S., & et al. (2020). *Role of goal orientation as a predictor of social capital: Practical suggestions for the development of team cohesiveness in SME's*. Monograph. Gunadarma Publisher, Indonesia.
34. Margianti, E.S., Ikramov, M.A., Abdullaev, A.M., & Kurpayanidi, K.I. (2022). *Development of the business sector of the economy in the context of institutional transformation*. Jakarta, Gunadarma Publisher, Indonesia. ISBN: 978-602-0764-47-4.
35. Mukhsinova, S. O., & et al. (2021). The problem of optimal distribution of economic resources.

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- ISJ Theoretical & Applied Science*, 01 (93), 14-22. Doi: <https://dx.doi.org/10.15863/TAS.2021.01.93.3>
36. Muminova, E. A. (2019). K probleme aktivizacii innovacionnyh processov v Uzbekistane. *Izvestija Oshskogo tehnologicheskogo universiteta*, (3), 261-265.
 37. Musajonovich, N. F., & Adhamovich, U. A. (2021). Issues of technological and innovative development of industry. *Nazariy va amaliy tadqiqotlar xalqaro jurnali*, 1(1), 69-75.
 38. Nabieva, N.M. (2020). Internet-marketing imkoniyatlari va ularni rivojlantirish. *Biznes-Ekspert*, № 2 (146), 112-114.
 39. Nabieva, N. M. (2022). Hizmat kʻrsatish korxonalarida marketing tadqiqotlarini olib borish ajrim hususiyatlari. *Nazariy va amaliy tadqiqotlar xalqaro jurnali*, 2 (4), 59-74. Doi: 10.5281/zenodo.6656696
 40. Nabiyeva, N.M. (2020). Marketing methods supporting advances in the higher education sector. *"EPRA International Journal of Research & Development" - INDIA Tamil Nadu, Tiruchirapalli*, Volume: 6, Issue: 5, May, pp.142-149. ISSN (Online): 2455-7838.
 41. Nabiyeva, N. M. (2019). Directions for the development of institutional problems of the system of higher education of the republic of Uzbekistan. *ISJ Theoretical & Applied Science*, 06 (74), 472-477. Soi: <http://s-o-i.org/1.1/TAS-06-74-52> Doi: <https://dx.doi.org/10.15863/TAS.2019.06.74.52>
 42. Nabiyeva, N. M. (2022). The role of marketing in the development of service enterprises. *Spectrum Journal of Innovation, Reforms and Development*, 4, 91-94. <https://www.sjird.journalspark.org/index.php/sjird/article/view/77>
 43. Newman, N. (2019). *Journalism, Media, and Technology Trends and Predictions 2019*. Retrieved from https://reutersinstitute.politics.ox.ac.uk/sites/default/files/2019-01/Newman_Predictions_2019_FINAL_2.pdf
 44. Nishonov, F. M., & et al. (2019). To the question of science approach to the construction of outsourcing business model of modern enterprise structure. *Dostizheniya nauki i obrazovanija*, (7), 22-25.
 45. Nishonov, F. M., & Tolibov, I. Sh. U. (2019). Konkurencija-kljucevaja kategorija rynochnyh otnoshenij. *Nauchnyj zhurnal*, 7 (41).
 46. Pride, W. M., & Ferrell, O. C. (2013). *Foundations of marketing*. Mason, OH: South-Western.
 47. Slijepčević, M., Radojevic, I., & Perić, N. (2020). Considering modern trends in digital marketing. *Marketing*, 51, 34-42. 10.5937/markt2001034S.
 48. Tsoy, D., & et al. (2021). Role of Social Media in Shaping Public Risk Perception during COVID-19 Pandemic: A Theoretical Review. *International Journal of Management Science and Business Administration*, 7(2), 35-41. <http://dx.doi.org/10.18775/ijmsba.1849-5664-5419.2014.72.1005>
 49. Tsoy, D., Godinic, D., & Tong, Q. (2022). Impact of Social Media, Extended Parallel Process Model (EPPM) on the Intention to Stay at Home during the COVID-19 Pandemic. *Sustainability* 2022, 14, 7192. Doi: <https://doi.org/10.3390/su14127192>

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Article



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THE STATE OF THE FOOD INDUSTRY IN UZBEKISTAN AND SOME ASPECTS OF ITS MANAGEMENT

Abstract: In the research work, the analysis of the activities of food industry enterprises in the Republic of Uzbekistan and the development of this industry, the study of the factors affecting it, comprehensive development of food production enterprises are relevant. In this process, special attention is paid to the management system of the activities of food industry enterprises and its study from theoretical and practical skills gives a positive result. In the results of the studies carried out, recommendations were made to increase the efficiency of the activities of food industry enterprises.

Key words: food industry, management mechanism, export, import, management structure, specialization, human factor, division of Labor.

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Introduction

In order to develop the economy of the country in a comprehensive manner, first of all, more organization of specialized enterprises for the production of food products in the regions, full use of available capacities, ensuring the competitiveness of food industry enterprises, and making rational management decisions are topical issues. There are many opportunities for the development of the food industry in the country, which is developing in world countries. The problem of the production of food industry products in the modern economy is associated with the changes taking place in the world economy, it is important to take into account objective changes in geopolitical and geoeconomics situations in the world, the interests of individual states, national and transnational companies in foreign economic relations, enterprises actively participating in international industrial cooperation. In this case, it is necessary to take into account the scientific and technical capabilities of the food industry, pay special attention to the production of goods that will have their place in the world market.

Nowadays, it is necessary to recognize the positive changes in the economy of our country and, as a result, the way of life of our population is improving. And the economic policy pursued in fairness is being created as a result of the implementation of large-scale economic and social programs for the development of industrial sectors. In particular, the food industry was also brought to a stage of genuine development in our country during the years of independence. This network has become a high-tech industry today. As a result of this, the provision of the population with quality food products is increasing year by year, providing our population with a food source.

Main body

The identification of factors of internal and external influence on the development of the food industry differs in the area of their emergence and the possibility of control by the manufacturer. Internal factors are material and intangible conditions that determine the development of production and its potential capabilities and are controlled by the manufacturer. External factors are understood as the

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influence of socio-economic conditions on the development of the food industry.

It is important to take into account the direct influence of food industry enterprises and its degree of importance. The external factors of the development of the food industry of the Republic include the main (consumption and agricultural raw materials) and additional (biological raw materials, food imports and agricultural raw materials, food supply from other regions).

It is advisable to study food production by dividing it into three production groups with a high spectrum of influence in the food industry:

1. Resource-oriented-enterprises are based on food production, which relies on sources of raw materials. Because its consumption exceeds the weight of the finished product (production required by the material).

2. Market-oriented-enterprises are based on food production, which is located in places of consumption of finished products. Because they are products or raw materials that are perishable in the production process (bread, confectionery, milk, etc.).

3. Enterprises are mixed production facilities that process agricultural raw materials at their own sources in the early stages and operate in the final stages (packaging, pouring, etc.) are placed in places of consumption of finished products. [1; p. 75]

The Republic of Uzbekistan has a wide resource based on agriculture and animal husbandry in the livelihood of the food industry. A wide range of food and food products are produced from canned fruits and vegetables, juices, drinks. From this, the resource base is of great importance in the development of the food industry.

Table 1. Features of the food industry resource base¹

Resources	Features
Raw materials	Raw materials are the basis for the production of products. Their nomenclature and quality have a decisive influence on the use of production facilities and labor productivity. The performance of equipment, useful working time, as well as the time that workers spend on the production of finished products depend on the quality of raw materials, its nomenclature.
Labor	Represents labor opportunities that can be mobilized in the process of labor management. In quantitative terms, the amount of labor resources depends on the officially established age levels of employees, the share of able-bodied citizens, the number of employed persons from among persons other than working age, the mode of reproduction of the population and migration flows.
Administrative	The system of interaction with the administrative-territorial state, municipal, private organizations and institutions effectively solves the problems of educational and administrative management methods that allow organizational, economic.
Innovation	Depends on the knowledge, skills and production experience of people and intangible assets, including patents, databases, software, trademarks and other economic and technical results of production.
Production	Resources that ensure the maximum production of finished products that can be obtained by the enterprise throughout the year on the basis of diversification of production using the achievements of scientific and technological progress in the corresponding target market.
Financial	From year to year, they determine investment opportunities for updating the expanded reproduction process, creating and expanding funds and reserves, replenishing budgets of all levels. They are a "circulatory" system that ensures the vital activity of the enterprise management mechanism.

The constant updating and improvement of various management tools and methods used in food industry enterprises often leads to their misinterpretation, which leads to misunderstanding and reduces the development efficiency of the company. In order to effectively manage the enterprises of the food industry, it is necessary to use various management tools. The main factor in modern approaches to management is a technological approach, which involves identifying and working

with the set of processes carried out in the organization. The management systems offered by various consultants today are based on the following basic approaches:

TQM (Total Quality Management) - universal quality management system;

PIQS (Process Integrated Quality System) is a quality management system integrated with business processes;

¹ Developed by the author.

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MS Iso 9000 series version 2000-regulatory requirements for quality management systems;

WFMS (Work Flow Management System) - workflow management system;

MRP (manufacturing Resource Planning) - Production Resource Planning;

KM (Knowledge Management) - Knowledge Management;

ERP (Enterprise Resource Planning) is an integrated corporate resource planning and management system;

"6 SIGMA" - a model for improving business processes;

"20 Management Keys" is a system aimed at improving business production management and service problems;

BSC (Balanced Scorecard,) — a system of balanced indicators. [2; p. 220-230]

Today, the results of the analysis of business processes presented in many literature based on the technological approach at the enterprises of the food industry clearly show that responsibility for their flow is not imposed on a separate structural unit of the enterprise, but having a strong negative impact on its activities.

Systematic identification and management of the processes are used by the enterprise and, above all, ensuring their interaction can be considered a "process approach".

The main criterion for the effectiveness of Process Management in food industry enterprises is the achievement of goals by the group, Department and the entire enterprise. The essence of the process approach is the organization of enterprise management as a network of interconnected processes. As a technological approach to management in improving the activities of enterprises, it is advisable to take into account the following approaches:

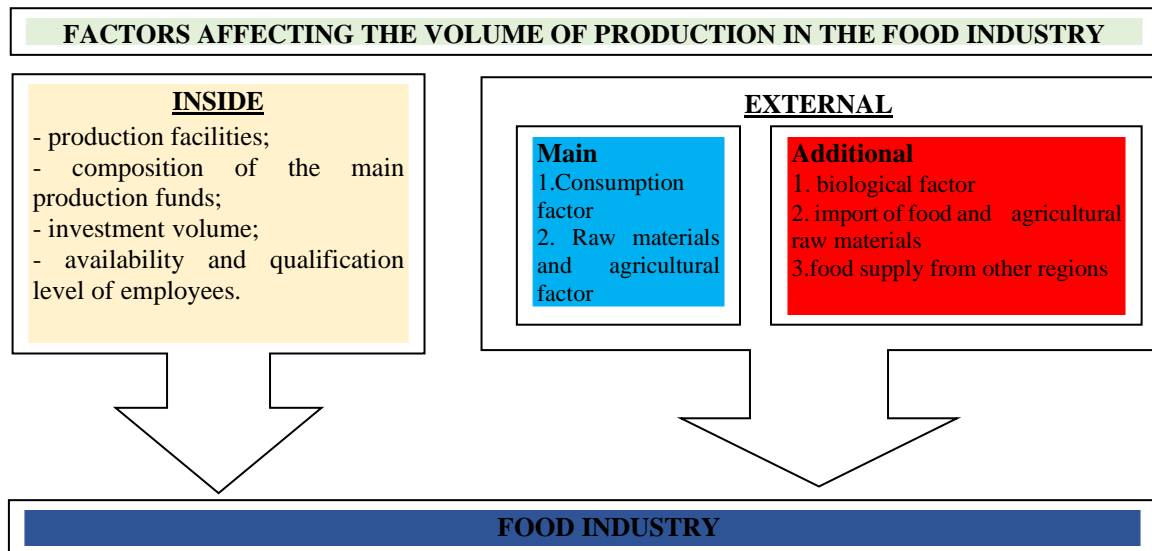
- process detection;
- appointment of the manager of each process;
- process description;
- setting goals and indicators;
- Resource Identification;
- process management based on goals and indicators.

The identification of processes in food industry enterprises includes the following stages:

- determination of the strategic goals of the organization;
- identification of organization policies and objectives;
- identification of organization processes;
- determination of the sequence of processes;
- identification of process owners;
- identification of documents of processes;
- determining the order of analysis and calculation efficiency of the business process. [3; p. 175]

The activities of the enterprise in determining the management goals of food industry enterprises be clear, identify consumers and other stakeholders, their requirements, needs and risks, will help to ensure all the necessary process results. Also, the top management should decide which markets the enterprise will contact. On the basis of this decision, he must develop an appropriate socio-economic policy.

The identification of factors of internal and external influence on the development of the food industry differs in the area of their emergence and the possibility of control by the manufacturer. Internal factors are material and intangible conditions that determine the development of production and its potential capabilities and are controlled by the manufacturer. External factors are understood as the influence of socio-economic conditions on the development of the food industry.



Picture 1. Classification of factors for the development of the food industry in the regions.

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The internal structure of the food industry requires taking into account the factors of raw materials (including agricultural and biological components) and consumption when studying the issue through the results obtained on the basis of the analysis.

When statistical data of the food industry sector for the end of 2021 are analyzed, it is determined to what extent the given isolates their results and the tasks ahead again. Last year, the foreign trade turnover of our country amounted to 42 071.6 million. When the US reached the dollar, imports in its composition amounted to 25,461.0 million. The US was in dollars. In the framework of our study, the analysis showed that 11.5 percent of the total import of 2021 accounted for food products. The fact that this figure increased by 1.2 percent compared to 2020 year determines the degree of relevance of the issue.

In our opinion, it is necessary to separate evaluate scientific approaches to the management of the activities of food industry enterprises, to further

develop a system of import substitution or localization of food industry enterprises instead of imported products. The widespread use of econometric models created in accordance with the management structure of such enterprises also serves to reduce the influence of the seasonality factor on this activity and increase the indicators of economic efficiency by accelerating the period of development of the sphere's activities, issues of improving the mechanisms for managing the activities of food industry enterprises. [4; p. 105]

The number of enterprises operating in the food industry in the Republic and the volume of products produced by them is increasing from year to year. 18,511.6 billion were received by food industry enterprises in the Republic. while the SOM product was produced, this figure is 63,161.9 billion by 2021. we can see the Ethnan of SOM (Table 1). But we can see that the volume of food products produced by food industry enterprises was 14 percent, while its share in the total industrial products was 19 percent in 2015 and decreased by almost 5 percent by 2021 (Table 1).

Table 2. Development of food production²

Indicators	2015 y	2016 y	2017 y	2018 y	2019 y	2020 y	2021 y
Total industrial products, billion sum	97 598,2	111 869,4	148 816,0	235 340,7	297 815,5	451 633,9	451 633,9
Total industrial product growth, billion sum	108,0	106,0	107,0	114,4	107,0	108,7	108,7
Food production, billion sum	18 511,6	22 400,5	23 217,7	25 256,0	30 632,7	63 161,9	63 161,9
Growth in food production compared to the previous year, %	114,4	110,8	95,0	96,3	108,0	106,1	106,1
Share of food products in total industrial products, %	19,0	20,0	15,6	10,7	10,3	14,0	14,0

The production rate of food products in the Republic of Uzbekistan increased 8 times in 2015-2021, and the growth rate per year was 9.74% (Table 1). The food industry is developing today on the basis of several requirements. In particular, food security in this industry is now considered one of the most pressing problems of the era. The way of life of the world's population and consumers of our country, as well as their demand, are expressed in food products prepared in safe and natural conditions.

The amount of consumer goods was witnessed above was 42,085.5 billion soums in 2015. The growth in this direction was just more than 3 times, while the total amount of consumer goods was 152,042.8 billion soums. While the food production per capita is 580,0 thousand soums. Food production per capita was 1,584.6,000 soums by the corresponding period of 2021. We can see that the rate of growth in the food industry has increased to 4.9% in the last 7-years.

²Prepared by the author on the basis of statistical data.

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Table 3. Dynamics of development of production of food consumer goods in Uzbekistan³

Indicators	2015 y	2016 y	2017 y	2018 y	2019 y	2020 y	2021 y
Production of consumer goods, billion sum	42 085,5	48 253,8	59 690,4	83 512,6	101 417,5	129 348,6	152 042,8
Production of consumer goods per capita, billion sum	1 344,6	1515,1	1842,9	2534	3 028,3	3 778,6	4 354,6
Growth in the production of consumer goods, %	109,7	106,0	106,7	114,7	115,6	105,7	113,5
Production of products for the production of food products, billion sum	18 154,6	21 970,3	23 305,7	24 053,2	29 687,3	44 014,1	55 327,3
Share of food products in the production of consumer goods, %	43,1	45,5	39,0	28,8	29,3	34,0	36,4
Production of food goods per capita, thousand soums	580,0	689,8	719,6	729,8	886,5	1 285,8	1 584,6
Growth in the production of food goods, %	112,0	94,8	92,9	116,9	109,8	107,2	116,9

The number of food production enterprises in the Republic of Uzbekistan and the number of registered enterprises in their range of 14 years, the number of operating enterprises, the number of liquidated

enterprises, the Activity Index and the bankruptcy index are listed. On the contrary, if the number of liquidated Enterprises was 773 in 2009, we can see that by 2021 there were 364.

Table 4. Number of food production enterprises in the Republic of Uzbekistan⁴

Years	Number of registered businesses	Number of operating enterprises	Number of liquidated enterprises	Activity index	Bankruptcy index
2009 y.	5597	4281	773	0,765	0,18
2010 y.	6826	5066	771	0,742	0,15
2011 y.	6867	5659	732	0,824	0,13
2012 y.	7594	6574	692	0,866	0,11
2013 y.	7924	6893	716	0,870	0,10
2014 y.	8723	7805	786	0,895	0,10
2015 y.	9113	8109	776	0,890	0,10
2016 y.	9560	8873	990	0,928	0,11
2017 y.	10007	9405	1099	0,940	0,12
2018 y.	11589	11046	916	0,953	0,08
2019 y.	13545	12912	733	0,953	0,03
2020 y.	16801	15869	642	0,945	0,04
2021 y.	23712	22154	364	0,954	0,03

The indicators of this table show an increase in the number of food-producing enterprises and support

for food-producing enterprises in our country. Of course, the implementation of appropriate measures

³ Prepared by the author on the basis of statistical data.

⁴ Prepared by the author on the basis of statistical data.

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by the government of the Republic in the last period, especially in connection with the pandemic and the elimination of the problems of lack of food in the world, testifies to the operational work of the management body of the government.

From this, in the further development of food industry enterprises, they are needed to be provided with modern technology and technology.

Conclusion

In order to ensure the stability of the balance of the price level and to prevent the decline in the solvency of the population, it is important to provide the activities of food industry enterprises in our country with advanced digital technologies:

A significant increase in productivity and accuracy can be achieved through the use of new structural innovations and predetermined algorithms, such as digitalization for the further development of the activities of food industry enterprises. For this, the development of the food industry in our country, in order to increase the use of digital technologies in it, day by day, both the legal and organizational environment is improving.

Given that the need for food has always been high, and this need is increasing from now on, it is necessary to create healthy competition for the further development of the activities of business entities in this area.

An urgent issue is the provision of state support to small industrial enterprises of industrial production in the form of Agriculture, which is a source of raw materials of food industry enterprises, as well as the creation of additional benefits for them, and the renewal and improvement of the system for improving the production potential, knowledge and skills of food industry enterprises.

In order to further develop the activities of food industry enterprises, the application of tax benefits in 2021 through such laws as "on additional inclusion in the tax code of the Republic of Uzbekistan aimed at Guaranteed provision of the population with basic types of food products" will also have a positive effect.

The development of any system is the most important condition for its qualitative management. To increase the stability of food industry enterprises, the installation of a system working with a certain algorithm in it will ensure the achievement of the goal.

References:

1. Desai, M., Gompers, P., & Lerner, J. (2003). Institutions, Capital Constraints and Entrepreneurial Firm Dynamics: Evidence from Europe, *Harvard HOM Research Paper*, 59.
2. Kolsa, R.P., & Yula, J.N. (2007). "Food marketing", (p.44). USA.
3. Kudrjashova, A.A., & Presnjakovalar, O.P. (2007). Prodovol'stvennoj bezopasnost': pokazateli, kriterii, kategorii i masshtaby. *Zh. Pishhevaja promyshlennost'*, Moscow, № 8, pp. 18-21.
4. Umarov, I.Yu. (n.d.). *Food products in the Republic of Uzbekistan production potential*. DOI: https://doi.org/10.55439/EIT/vol10_iss3/a25
5. (n.d.). *Author's calculations. State statistics of the Republic of Uzbekistan committee information*.
6. Turgunov, M. (2021). State and prospects of the republic of uzbekistan in international ratings of innovation development. *Theoretical & Applied Science*, (7), 37-42.
7. Turgunov, M. (2021). Issues of innovative approach and financing of innovative projects in rapid economic development. *Jekonomika i socium*, (7), 151-159.
8. Muhriddin, T. U. (2021). Oziq-ovqat sanoati korxonalari faoliyatini boshqarishning o'ziga xos ayrim xususiyatlari. *Nazariy va amaliy tadqiqotlar xalqaro jurnali*, 1(2), 65-75.
9. Turgunov, M. M. (2021). *Sovershenstvovanie mehanizmov upravljenja predpriyatijami pishhevoj promyshlennosti*. In *Nauka segodnja: fundamental'nye i prikladnye issledovaniya* (pp. 25-26).
10. Kodirov, S. (2021). Issues of business cooperation in the national economy of uzbekistan. *Jekonomika i socium*, (7), 79-88.
11. Kodirov, S. (2020). Some issues of digitalization in the industrial sector of the economy. *ISJ Theoretical & Applied Science*, 12 (92), 377-384.
12. Kurpayanidi, K. I., & Abdullaev, A. M. (2018). Actual issues of the functioning of an innovative industrial enterprise. *ISJ Theoretical & Applied Science*, 11(67), 74.
13. Tsoy, D., Tirasawasdichai, T., & Kurpayanidi, K. I. (2021). Role of social media in shaping public risk perception during COVID-19 pandemic: A theoretical review. *International Journal of Management Science and Business Administration*, 7(2), 35-41.

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14. Musajonovich, N. F., & Adhamovich, U. A. (2021). Issues of technological and innovative development of industry. *Nazariy va amaliy tadqiqotlar xalqaro jurnali*, 1(1), 69-75.
15. Kurpayanidi, K.I. (2022). Voprosy sovershenstvovaniya organizatsionno-ekonomicheskogo mehanizma razvitiya chastnogo predprinimatelstva. *Horazm Maymun Akademiyasi Ahborotnomasi - Vestnik Horezmskoy Akademii Maymuna*, 1(85), 89-93. Doi: <https://doi.org/10.5281/zenodo.5940010>
16. Kurpayanidi, K.I. (2022). K voprosam metodologicheskikh podhodov issledovaniya institutsionalnoy sredy malogo predprinimatelstva. *Byulleten nauki i praktiki*, 9 (82).
17. Kurpayanidi, K. (2022). Integration of innovation and information and communication technologies as a source of economic transformation. *Ekonomika I sosium*, 9 (100).
18. Tsoy, D., Godinic, D., & Tong, Q. (2022). Impact of Social Media, Extended Parallel Process Model (EPPM) on the Intention to Stay at Home during the COVID-19 Pandemic. *Sustainability* 2022, 14, 7192. Doi: <https://doi.org/10.3390/su14127192>
19. Mamurov, D.E. (2022). *Management of innovative activity of business entities in industry*: monograph, Fergana polytechnic institute. AL-FERGANUS. Doi: <https://doi.org/10.5281/zenodo.6475830>
20. Margianti, E.S., et al. (2022). *Development of the business sector of the economy in the context of institutional transformation*. Jakarta, Gunadarma Publisher, Indonesia. ISBN: 978-602-0764-47-4.
21. Kurpayanidi, K. I. (2022). Trends in the development of small and medium-sized businesses in the region: foreign experience (based on the materials of the Russian Federation). *ISJ Theoretical & Applied Science*, 09 (113), 11-20.
22. Kurpayanidi, K. I. (2022). Scenarios of investment and innovation policy in the light of institutional transformation. *ISJ Theoretical & Applied Science*, 04 (108), 1-11. Soi: <http://s-o-i.org/1.1/TAS-04-108-1> Doi: <https://dx.doi.org/10.15863/TAS.2022.04.108.1>
23. Kurpayanidi, K.I. (2022). *Issues of innovation and innovation management in the context of economic transformation*: monograph. Kurpayanidi K.I., edited by M.A.Ikramov, Fergana polytechnic institute. AL-FERGANUS, 2022, 270 p. ISBN 978-9943-8579-2-6.
24. Ilyosov, A.A., et al. (2022). *Sanoat mahsulotlari eksportining tashkiliy-iqtisodiy mexanizmlarini takomillashtirish (Farg'ona viloyati sanoat tarmog'i misolida)*: monografiya. Kurpayanidi K. I., Ilyosov A.A.; M. A. Ikramov tahrir ostida, Farg'ona politexnika instituti. AL-FERGANUS, 2022, p.184. ISBN 978-9943-7707-5-1 Doi: <https://doi.org/10.5281/zenodo.6618980>
25. Muminova, E.A., et al. (2022). *Osnovyi ekonomicheskikh znaniy*. Uchebnik. Dlya neekonomicheskikh napravleniy bakalavriata vyisshih obrazovatelnyih uchrejdeniy. (p.528). Fergana: AL-FERGANUS. ISBN 978-9943-8579-3-3.

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METHODS OF DEVELOPING AGROTECHNOLOGY OF AMARANTH PLANT UNDER ORGANIC FARMING CONDITIONS

Abstract: Amaranth is considered a useful plant. Among the many crops around the world, it is in the top ten in terms of the number of cultivars. In arid conditions and with a shortage of irrigation water and increasing desertification of the region, the use of traditional plants (cotton, wheat, rice and other crops) becomes problematic due to greater water consumption and requirements for cultivation conditions. According to American scientists, amaranth, when assessing the biological activity of protein 100 points, protein in amaranth grain is estimated at 75 points, wheat protein - 56.9 points, soybean grain - 68, cow's milk - 72.2 points. organic fertilizers on the growth and development of amaranth. The study of the characteristics of the growth and development of amaranth at different rates of application of organic and mineral fertilizers, a positive effect of organic fertilizers on the growth and development of amaranth has been established.

Key words: amaranth, agrotechnology, organic fertilizer, mineral fertilizer, soil composition, growth period, flowering, grain.

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Introduction

Currently, in the conditions of the increase in the average temperature around the world and the disturbance of the ecological balance, there is also a shortage of water and an increase in saline cultivated areas in Karakalpakstan. This, in turn, shows the need to cultivate plants that are stable to stress conditions and require less water and apply them to various sectors of the national economy. One of such non-traditional types of plants is Amaranthus.

Amaranth (from the Greek - eternal, unfading) – it is a new culture for our country, which attracts the attention of researchers and agricultural practitioners for its richness and balance of protein,

surprisingly high yield, abundance of vitamins and mineral salts. In the 21st century, this plant is able to take a leading position not only as food and fodder, but also as a medicinal plant. In addition, due to the expected global climate changes on Earth [1], the use of amaranth is increasing and is more relevant due to its characteristics to adapt to different environmental conditions. Since this culture is still little known, the purpose of the article is to familiarize the reader with the specificity of amaranth biology and physiology, especially in relation to its high adaptive potential.

Amaranth protein contains twice as much lysine as wheat, and three times as much as corn and sorghum. It is known that lysine is a valuable

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essential amino acid, because it cannot be synthesized in animal tissues, humans and animals get it only from plants. Amaranth seeds are also a source for the production of vegetable oil and squalene [3]. 100 grams of amaranth seeds have 370 calories and contain 7 grams of lipids, 4 mg of sodium, 508 mg of potassium, 65 mg of carbohydrates, 1.7 mg of sugar, 14 mg of protein, 159 mg of calcium, 4.2 mg of vitamin C, 7.6 mg of iron, 248 mg of magnesium, 0.6 mg of vitamin B6, and other vitamins are found. Amaranth oil does not contain cholesterol (N. B. Zheleznova, A. V. Zheleznov, V. K. Shumnyi i dr., 1989; E. A. Goncharova, 2001; Baranova T.V., 2012).

Amaranth seeds are widely used in the treatment of a number of diseases. In our republic, the use of amaranth plant products began to be cultivated mainly for fodder crops. Medicinal properties of the plant are being studied by the medical staff of our republic and scientific information on scientific basis is being found, at the same time there is information that it has been widely used in our national medicine since ancient times (Tursunova Sh.A., 2019; Eryigitova S., Pazilbekova Z., 2021).

Growing amaranth as an agricultural crop in the conditions of the Republic of Karakalpakstan, taking into account the lack of published scientific data on this plant, the purpose of studying the growth and development of plants of two types of lines when using amaranth as a main and repeated crop at different rates of organic and mineral fertilizers was set. In the field experiments, the tasks of collecting data on two types of lines were set in the variants given different organic and mineral fertilizers;

- to determine the dynamics of accumulation of green and dry matter according to development phases;
- check leaf area dynamics and photosynthetic efficiency;
- taking into account the accumulation of green mass of the plant;
- determination of grain yield and yield structure;

- to determine the productivity of amaranth green mass and grain grown in saline and dry areas and to recommend alternative options for production.

The technology of growing amaranth in the experiment. Fields where amaranth is planted were plowed to a depth of 25-35 cm in autumn and leveled. Before plowing the soil, depending on the options, organic and mineral fertilizers are spread, weeding is done. Amaranth planting was carried out in March-April, when the soil warmed up to 10-12 degrees and the soil was ready for planting. Amaranth was planted in two periods on April 16 and May 2 in a 60x20 scheme. Two different cultivar samples were planted and tested, they are Red flower and Blue flower cultivar samples. They are distinguished by their resistance to local saline soils and annual droughts and water shortages. Amaranth seed consumption was 1.0 kg per hectare, planting depth was about 1.5 cm. When sowing the seeds, a small slave was planted with a seeder. Baranova T.V. According to (2012), it is recommended that the seed consumption per hectare can be up to 2 kg per hectare when grown as animal feed.

When the height of the plants reached 10-15 cm, the rows were loosened with a cultivator to a depth of 5-6 cm and fed with ammonium nitrate at the rate of 40 kg/ha per one hectare of land. The second feeding was carried out with nitrogen and phosphorus fertilizers at the rate of 30 kg/ha per hectare before watering when the plant reached 30-35 cm in height. After feeding, the growth and development of amaranth accelerates (Chernov I.A., 1992; Chirkova, T. V., 1999). During the season, the soil was irrigated mainly once in 2021 and twice in 2022, depending on the climatic and economic conditions. The soil composition of amaranth field is presented in Table 1. Nitrates were observed to be the highest before planting at 26.56 mg/100 grams of soil. During the growing season, plants use nitrates to decrease; and the amount of ammonium nitrogen, phosphates and humus increases in the soil at the end of vegetation.

Table 1. Amaranth field soil composition (2021), mg/100 grams

options	nitrates	ammonium	phosphates	humus	pH
Until planting (april)	26.56	1.99	1.168	1.014	7.2
Flowering (june)	9.57	1.92	1.174	0.95	7.4
Ripe (september)	18.68	8.44	3.148	1.144	7.1

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Mathematical analysis of the obtained results B.A. It is processed according to the methodology of Dospekhov (1985).

The obtained results and their analysis. Data obtained on phenological observations are presented in table 2. The time of emergence of sprouts was observed simultaneously in all options given organic and mineral fertilizers. The next phase of development: by the time of the appearance of 4-5

pairs of leaves, it was observed that in the variants given mineral and organic fertilizers, this period was two days earlier than in the control (fertilized) variant. In the variant planted in the second term (May 1), the same effect of fertilizers was observed, and the time of appearance of 4-5 pairs of leaves fell on May 25 for red-flowered amaranth and May 28 for brown-flowered amaranth.

Table 2. Amaranth transition from phenological phases according to planting dates and fertilization rates

Phases of development	1 term (15 april)			2 term (1 may)		
	Fertilizer isn't given (control)	Mineral fertilizer N ₁₅₀ P ₈₀ K ₆₀	Organic fertilizer 25 t/ha	Fertilizer isn't given (control)	Mineral fertilizer N ₁₅₀ P ₈₀ K ₆₀	Organic fertilizer 25 t/ha
Complete sprouts	23.04*	23.04	23.04	06.05	06.05	06.05
	23.04**	23.04	23.04	08.05	08.05	08.05
4-5 pairs of leaves	11.05	13.05	13.05	23.05	25.05	26.05
	13.05	15.05	15.05	26.05	28.05	29.05
Beginning of branching	19.05	21.05	21.05	29.05	31.05	31.05
	21.05	24.05	24.05	30.05	04.06	04.05
Branching and spike production	05.07	08.07	08.07	15.07	18.07	18.07
	08.07	10.07	10.07	18.07	20.07	20.07
bloom	15.07	18.07	18.07	21.07	23.07	24.07
	20.07	22.07	22.07	23.07	25.07	26.07
Fruiting	10.08	13.08	13.08	12.08	15.08	15.08
	13.08	15.08	15.08	17.08	20.08	20.08
Full ripening collection	During the reporting period, this phase was not observed in plants					

*amaranth variety specimen with red flowers; **amaranth variety specimen with blue flowers

The beginning of the branching phase was observed on May 19-21 in the control option when planted in the 1st period (April 15), May 21-24 in the fertilized options, and July 18-20 when planted in the second period. The phase of branching and earing was observed in plants planted in the first period on July 8-10, and in the second planting period on July 18-20. Flowering phase is the main and complex process, weather and agrotechnical conditions during this period affect grain yield. It is worth mentioning that due to the shortage of irrigation water in the 2022 growing season, it has been shown to have a negative effect on seed set during the flowering period of plants. Therefore, we believe that the above-normal temperature in July had a bad effect on the growth of the development phases. The fruiting phase was observed on August 13-15 in the first planting period, and on August 15-20 in the second planting period.

Leaf area and dry matter accumulation in amaranth crops. The process of photosynthesis plays an important role in the accumulation of dry matter and productivity. The process of

photosynthesis in plants changes during the day and during the growing season, as well as depending on the type of plant and the applied agrotechnical measures (Khujaev J.Kh., 2004).

Table 3 shows the information about leaf fall of amaranth crops according to the variants of our experiment. Maximum leaf fall is observed between branching and spike-flowering phases.

According to the data (Shugusheva L.Kh., 2015), the loss of phenophases, the intensity of plant growth and the accumulation of dry matter in ontogeny, the additional daily growth of the stem and the continuation of the vegetative period depend on the individual characteristics of plants and growing conditions.

In our experiments, the most favorable growth conditions are observed when mineral and organic fertilizers are applied to the soil. During ontogeny, the growth of the highest stem takes place between the budding and flowering phase. In this case, the highest results were observed in the variants planted in 1 period (April 15), when mineral fertilizer N₁₅₀P₈₀K₆₀ was given, the average leaf area of one

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plant was 1046.19 sm² (table 3), and 984.6 sm² for red flower amaranth. Organic fertilizer 25 t/ha leaf in the given option.

Table 3. Leaf area (sm²) and dry matter accumulation (t/ha) of one plant depending on the planting dates and fertilization rates of amaranth

Phases of development	1 term (15 april)			2 term (2 may)		
	Fertilizer isn't given (control)	Mineral fertilizer N ₁₅₀ P ₈₀ K ₆₀	Organic fertilizer 25 t/ha	Fertilizer isn't given (control)	Mineral fertilizer N ₁₅₀ P ₈₀ K ₆₀	Organic fertilizer 25 t/ha
Leaf area a plant, average (sm ²)						
Branching and spike - flowering	<u>329,5</u> 287,2	<u>1046,19</u> 984,6	<u>1138,1</u> 1053,6	<u>307,4</u> 286,8	<u>1022,6</u> 973,5	<u>1061,5</u> 1022,4
Grain formation phase	<u>186,7</u> 147,4	<u>484,8</u> 464,7	<u>479,2</u> 459,1	<u>176,4</u> 170,6	<u>439,5</u> 420,8	<u>442,9</u> 427,3
Dry mass of a plant (weight, gr)						
Branching and spike - flowering	<u>305,2</u> 285,3	<u>440,0</u> 421,6	<u>437,2</u> 429,0	<u>316,7</u> 290,5	<u>423,0</u> 401,5	<u>425,2</u> 406,0
Grain formation phase	<u>270,4</u> 251,6	<u>336,0</u> 331,4	<u>347,2</u> 338,0	<u>253,6</u> 228,2	<u>328,5</u> 311,8	<u>317,8</u> 320,6

area was 1138,1 and 1053,6 sm² per plant (average in this order).

In plants planted in the second period (May 2), the increase in leaf area is observed to be less during the budding-flowering phase.

Dry matter is observed in the phase of budding, branching and earing-flowering in the amaranth plant. At the same time, in the first planting period, in the control (unstimulated) version, 305.2 grams of amaranth with red flowers and 285.3 grams were distributed in one plant of amaranth with red flowers. In the case of mineral fertilizer N₁₅₀P₈₀K₆₀ kg/ha, the average weight of one plant was 440.0 grams, and the weight of one red-flowered amaranth plant was 421.6 grams. In the case where organic fertilizer is given in the amount of 25 t/ha, it is the same: 437.2 and 429.0 grams.

Amaranth planted in the second period (on May 2) without fertilizer (control): 316.7 and 290.5 grams; mineral fertilizer N₁₅₀P₈₀K₆₀, in the version given in the norm, the amount of dry matter per plant is 423.0 and 401.5 grams. Organic fertilizer at the rate of 25 t/ha did not significantly differ: 425.2 and 406.0 grams of dry matter per plant.

Green mass yield of amaranth. According to the data of L.A. Miroshnichenko (12), according to the data of the Belarusian Research Institute of

Animal Husbandry, when using a mixture of corn and amaranth silage, milk yield and milk viscosity were higher than when feeding only corn silage. Milk yield + 24.9%, fat content increased by 0.12%, protein content in milk increased by 0.25%. There are reports that it is useful to harvest amaranth green mass for silage during the flowering phase. Amaranth fodder has a higher biological productivity than other forages. Green mass productivity of amaranth is at least 20-30% higher than that of maize and has been proven to give green mass yield of 500 t/ha and more in other regions. In irrigated lands, it can produce twice a year.

Amaranth biomass is a vitamin-rich fodder that is easily absorbed by the animal body. Since the content of protein is 19 - 21%, it is used to correct the quality of other fodder, for example, animal fodder is supplemented with all the elements in terms of protein (8). Adding only 10-15% additional amaranth meal allows to increase the productivity of farm animals without spending too much money.

Taking into account the importance of amaranth silage mentioned above, the yield of silage mass grown according to options in the experimental fields is presented in table 4.

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Table 4. Green mass yield of amaranth (July 15, 2022 y)

Phases of development	1 term (15 april)			2 term (2 may)		
	Fertilizer isn't given (control)	Mineral fertilizer N ₁₅₀ P ₈₀ K ₆₀	Organic fertilizer 25 t/ha	Fertilizer isn't given (control)	Mineral fertilizer N ₁₅₀ P ₈₀ K ₆₀	Organic fertilizer 25 t/ha
on average per plant, gram						
Amaranth with blue flower	972	1670	1588	951	1518	1574
Amaranth with red flower	896	1547	1519	926	1483	1522
on average per hectare, ts/ha						
Amaranth with blue flower	880	1503,0	1429,2	855,9	1366,2	1416,6
Amaranth with red flower	806,4	1392,3	1367,1	833,4	1334,7	1369,8

According to the obtained data, the lowest green mass yield was obtained in the non-fertilized variant, the weight of one plant of White amaranth is 972 grams, and that of red amaranth is 898 grams. The green mass obtained per hectare is 880 and 806.4 centners in blue-flowered amaranth and red-flowered amaranth. When mineral fertilizers are given at the rate of N₁₅₀P₈₀K₆₀, the yield of green mass increases 1.71 times, and the yield per hectare of Blue-flowered amaranth is equal to 1503.0 t/h. In the variant with organic fertilizer at 25 t/h, the increase compared to the control is 1.62 higher and reaches 1429.2-1367.1 t/h.

Green mass yield in amaranth varieties planted in the second period was lower on July 15 compared

to the first period, and it is observed that their maximum green mass accumulation time is 10 days later. Amaranth stalks have the ability to form strong and vigorous stems (Fig. 21-23).

Amaranth grain yield. Harvesting was done when the leaves turned yellow and the moisture content of the grain was around 16-18% (table 5).

According to the data, the lowest yield was observed in the non-fertilized version, 8.7 t/ha of amaranth with blue flowers and 7.3 t/ha of amaranth with red flowers. With an increase in the rate of mineral fertilizer, the yield in the N₁₅₀P₈₀K₆₀ variant was thus 19.7 and 19.2 t/ha. Organic fertilizer 25 t/ha

Table 5. Grain yield of amaranth (July 22, 2022 y)

Phases of development	1 term (15 april)			2 term (2 may)		
	Fertilizer isn't given (control)	Mineral fertilizer N ₁₅₀ P ₈₀ K ₆₀	Organic fertilizer 25 t/ha	Fertilizer isn't given (control)	Mineral fertilizer N ₁₅₀ P ₈₀ K ₆₀	Organic fertilizer 25 t/ha
on average per plant, gram						
Amaranth with blue flower	8,7	19,7	17,5	8,1	18,3	17,0
Amaranth with red flower	7,3	19,2	17,2	6,7	17,6	16,4
HCP ₀₅ , ts\ga		0,7			0,6	

17.5 and 17.2 ts/ha grain yield was collected in the given option. It is necessary to take into account the reduction of grain yield in the case of organic fertilizer application, as only a part of the nutrients contained in organic fertilizer will be fully usable for plants in the first year.

In the options planted in the second term, it is observed that the grains of the plant are less ripe due to insufficient ripening. For example, it is observed

that the yield in the second period for blue-flowered amaranth was lower by 0.9 centners on average, and for red-flowered amaranth it was lower by 1.0 t/ha.

In conclusion, amaranth yield in 2022 is close to annual figures. Fertilized varieties yield significantly higher and these indicators are 16.4-19.7 ts/ha. A significant difference is observed in the fertilized variants compared to the control variant and between planting dates.

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References:

- Allanov, H., Sottorov, O., & Normuradova, M. (2021). Technology of cultivation of amaranth plant. *AGRO ILM - Agriculture and water industry of Uzbekistan*, #2, pp.34-35.
- Bekuzarova, S.A., Kuznetsov, I.Yu., & Gasiev, V.I. (2014). *Amaranth - universal culture*. (p.180). Vladikavkaz: Colibri.
- Baranova, T.V., & Sokolenko, G. G. (2012). Issledovaniya antioks-aktivnosti amaranth v usloviyakh tsentralno-chernozemnogo regiona. *Vestnik Baltiyskogo federalnogo universiteta im. I. Kanta*, No. 7, pp. 115–123.
- Dospekhov, B. A. (1985). Methodology of polevogo opyta (s osnovami statisticheskoy obrabotki orabotki isledovaniy). 5-e izd., dop. i pererab. (p.351). Moscow: Agropromizdat.
- Zheleznova, N. B., et al. (1989). Perspektive vozdelevaniya amaranth na kormovye tseli i semena. Text: neposredstvennyy. *Sibirskiy vestnik sel-skohozyaystvennoy nauki*, No. 4, pp. 49-52.
- Goncharova, E. A., Gins, M. S., Khodorenko, A. V., & Bulyntsev, S. V. (2001). *Regulatory role of amaranth and plant growth process*. New and non-traditional plants and perspectives and uses: IV International Symposium. (pp.46-48). Moscow: RUDN.
- Tursunova, Sh.A. (2019). *Biochemical and physiological characteristics of grain amaranth species under conditions of introduction*. Abstract. Tashkent.
- Khujaev, J.Kh. (2004). *Physiology of plants* (Textbook). (p.224). Tashkent: "Mekhnat".
- Chernov, I.A. (1992). *Amaranth - physiological-biochemical basic introduction*. (p.87). Kazan: Izdatelstvo Kazanskogo universiteta.
- Chirkova, T. V. (1999). Amaranth culture 21 veka. Text: neposredstvennyy. *So-rosovsky obrazovatelnyy zurnal*, No. 10, pp. 22-27.
- Eryigitova, S., & Pazilbekova, Z. (2009). Determining the quality index of amaranth (amaranthus) plant seeds. *Agro Inform* [2] 2021, pp. 68-69. Amaranth: Future Food. Newsletter no. 3. 2009.
- Miroshnichenko, L.A. (n.d.). Retrieved from https://amarant46.ru/shop2/index.php?route=product/oct_blog/info&blog

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Article



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VERBAL, SYMBOLIC, MATHEMATICAL, SEMANTIC, BEHAVIORAL, COGNITIVE MODELS

Abstract: The model of "unprofitable leadership" is considered - a subsidized, initially unprofitable offer with the expectation of making a profit from subsequent sales. Verbal, symbolic, mathematical, semantic, behavioral, cognitive models of the general idea of attracting orders and customers with an initial offer (free conversion of tractors, combines into unmanned units) with subsequent profit from future sales (spare parts for robotic equipment), mandatory contracts for service service. Additional facts, values, rational motives of the farmer's behavior are revealed. Through the objective function of the Optimization Task, the state's interest in minimizing budget expenditures and forcing employers-farmers to solve social problems is proved.

Key words: verbal, symbolic, mathematical, semantic, behavioral, cognitive models.

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СЛОВЕСНАЯ, СИМВОЛЬНАЯ, МАТЕМАТИЧЕСКАЯ, СМЫСЛОВАЯ, ПОВЕДЕНЧЕСКАЯ, КОГНИТИВНАЯ МОДЕЛИ

Аннотация: Рассматривается модель «убыточного лидерства»-субсидируемое, первоначально убыточное предложение с расчетом на получение прибыли от последующих продаж. Построены словесная, символическая, математическая, смысловая, поведенческая, когнитивная модели общей идеи привлечения заказов и клиентов первоначальным предложением (бесплатная переделка тракторов, комбайнов в беспилотные агрегаты) с последующим получением прибыли от будущих продаж (запасных частей к робототехническим оборудованьям), обязательных контрактов на сервисное обслуживание. Выявлены дополнительные факты, величины, рациональные мотивы поведения фермера. Через целевую функцию Оптимизационной Задачи доказан интерес государства минимизировать бюджетные расходы и принуждать работодателей-фермеров решать социальные задачи.

Ключевые слова: словесная, символическая, математическая, смысловая, поведенческая, когнитивная модели.

Введение

«Приманка и крючок»—стиль бизнес-моделирования, для которого характерно привлекательное недорогое или бесплатное первичное предложение, стимулирующее

дальнейшие покупки релевантных товаров и услуг. Стиль известен также как «убыточное лидерство» или «бритва и лезвия». Модель «убыточного лидерства» — субсидируемое, даже первоначально убыточное предложение с

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расчетом на получение прибыли от последующих продаж. Модель «бритвы и лезвия» популяризовал Кинг Жиллетт, изобретатель одноразовых бритвенных станков. Мы используем термин «приманка и крючок» для описания общей идеи привлечения клиентов первоначальным предложением (бесплатная переделка тракторов, комбайнов в беспилотные агрегаты) с последующим получением прибыли от будущих продаж (запасных частей к робототехническим оборудованьям), обязательных контрактов на сервисное обслуживание. Суть анализируемого ниже проекта аналогична «практике предлагать мобильный телефон бесплатно вместе с контрактом на обслуживание» - «приманка и крючок». Вначале операторы теряют деньги, раздавая мобильные телефоны, но потом легко покрывают свои убытки за счет ежемесячных платежей. Бесплатное предложение — приманка, благодаря которой оператор потом получает регулярный доход. Ключ модели - тесная связь между дешевым или бесплатным первоначальным продуктом и покупкой других товаров, на продаже которых компания получает существенную прибыль. Рассмотрим актуальный проект, практическое применение когнитивной модели которого возможно одновременно с роботизацией земледелия.

Исходные данные

Государство объявило конкурс на участие в проекте: бесплатное переоснащение техники робототехническим оборудованием (с заменой непригодных деталей, агрегатов) каждый седьмой трактор или комбайн в робототехническую беспилотную систему: доля комбайнов равна $2/5$. Преобразуем суть проекта в словесную модель и далее преобразуем ее объекты в другие типы моделей. Простыми примерами словесной модели являются пословицы - «формула» жизни (одна из них оцифрована в [1]), ее отражение через смыслы слов, фраз. Пословицы объясняют: если сделаешь то – будет так, а вот это случилось потому-то. В пословицах отражена народная мудрость: а по нашей терминологии - словесная модель (короткая фраза с большим смыслом). Рассмотрим один аналог пословицы.

Требуется разработать словесную, символическую, математическую, смысловую, поведенческую, когнитивную модели, выявляющие дополнительные факты, рациональные субъективные мотивы поведения фермера, объективно значимые интересы государства, социальные интересы государства.

Словесная, символическая, математическая, смысловая, поведенческая модели добычи скрытых знаний

Некая государственная структура выдвигает для фермеров – производителей агропродукции короткий и привлекательный проект, цель которой стимулировать «применение робототехнических систем в сельском хозяйстве». Для начала эта «структура» хочет внедрить беспилотные тракторы, комбайны, чтобы фермеры сэкономили на зарплатах трактористам, комбайнерам и убедились в преимуществах беспилотной многочасовой работы робототехнических систем. С последующей посадкой на «крючок» - платные запчасти и ежегодное сервисное обслуживание. Прочность этой связи крепка.

Словесная модель проекта: «бесплатно переделаем (с заменой непригодных деталей, агрегатов) каждую седьмую технику (тракторы и комбайны) в робототехническую беспилотную систему (доля комбайнов равна $2/5$)». Символьная модель $(2/5, 1/7) \Rightarrow (?)$ здесь отлична от символической модели из [1,2], она не отражает динамику объектов (как в [2,3]), а отображает 2 цифры, не определяя состав целевых цифр/чисел. Соответствующая количественная модель имеет входными параметрами 4 символа 1,7,2,5, изображающие 2 числа $1/7$ и $2/5$. В ней вводятся неизвестные переменные величины и приемлемая (инструменты дальнейших познаний словесной модели) субъективно назначаемое дополнительное число 35. Этим числом является наименьшее целое число, пригодное для назначения общего количества техники (тракторов и комбайнов), равное $35 = x + y$. $y = 35 - x$, $x \cdot (1/7) = u$, $y \cdot (1/7) = v$, $x + y = (1/7) = u + v$.

Символьная модель может дать не единственную количественную, смысловую модели. Входные параметры (4 символа) 1,7,2,5 могут иметь смыслы «1 – с сошкой, семеро – с ложкой», «2 пирожка из пяти», отображающие 2 числа $1/7$ и $2/5$.

Значение $x=35$ дает возможность вычислить количество комбайнов - $35 \cdot (2/5) = 14$, количество тракторов - $35 - 14 = 21$. Для «роботизации» будут отобраны $21 \cdot (1/7) = 3$ трактора и $14 \cdot (1/7) = 2$ комбайна. Символьная модель Схема решаемой в Символьной модели $(2/5, 1/7) \Rightarrow (?)$ задачи имеет схему вида $(35, 2, 5, 1, 7) \Rightarrow (3/5, x, u, v)$ или $(35, 2, 5, 1, 7) \Rightarrow (3, x, u, v)$. Символьная форма модели кратко выражает количественную модель или модель работы робота [3]. Количественной модели соответствует Смысловая модель реализации проекта. Она состоит из этапов:

- 1) фермер внедряет передовую технологию;
- 2) у фермера сокращается фонд заработной платы;
- 3) уволенные водители 3 тракторов и 2 комбайнов должны пройти обучение, получить другие квалификации и трудоустроиться на другие профессии.

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Поведенческая модель фермеров скрыта за количественной моделью, она открывает некоторые детали субъективных предпочтений реальных фермеров. Каких водителей 3-х тракторов и каких 2 комбайнов уволит фермер? Будут ли их тракторы и комбайны новыми или старыми – с большой (небольшой) степенью изношенности? Есть обоснование предположить, что фермер сомневается в надежности будущих выгод. Поэтому он, наверное, отзовет от их техники 5-х и направит их на повышение квалификации: 5 водителей с низкой производительностью труда и с техникой большой степени изношенности. Это – первый аналитический опознанный факт. Второй скрытый вопрос: что должны делать фермеры, имеющие 1 трактор+1 комбайн? 1 трактор? 1 комбайн? Какие их действия могут дать им возможность участвовать в выгодном проекте? Ответ дает объединение техники нескольких фермеров, если произойдет приемлемое объединение обрабатываемых земель. Будет оформлен соответствующий корпоративный договор.

Введем смыслы (отображающие рациональность результата, равного линейной комбинации переменных или операций над реальными объектами) для бизнес-процессов. Для реализации будущей когнитивной (познающей) модели нужны понятность, логичность, обоснованность (релевантность) операций, то есть нужна проверенная анализом состоятельность выдвинутой теории. Мы опираемся на детали примеров из [4,5,6,7,8,9,10], где приведены субъективные действия индивидов в разных ситуациях. Нужна проверяемая (наблюдением, измерительными приборами, экспериментальными установками и другими достоверными доступными средствами) теория.

Смысловая модель, соответствующая **количественной модели** имеет входными параметрами 2 смысла: $\text{смысл}(x)=\text{трактор}$, $\text{смысл}(v)=\text{комбайн}$ и имеет 2 числа $1\sqrt{7}$ и $2\sqrt{5}$. Ранее в количественной модели решена вычислительная задача $(35,2,5,1,7)\Rightarrow(3,x,u,v)$. У переменных x,u,v определены смыслы: $\text{смысл}(x)=\text{трактор}$, $\text{смысл}(y)=\text{комбайн}$; $\text{смысл}(x+y)=\text{техника}$, $\text{смысл}(u)=\text{гобтрактор}$; $\text{смысл}(v)=\text{гобкомбайн}$; $\text{смысл}(u+v)=\text{гобтехника}$.

Для нашей исходной словесной модели выполняются смысловые равенства: $\text{смысл}((1/7)*x)=(1/7)*\text{смысл}(x)=(1/7)*\text{трактор}=\text{гобтрактор}$; $\text{смысл}((1/7)*y)=(1/7)*\text{смысл}(y)=(1/7)*\text{комбайн}=\text{гобкомбайн}$. Эта система смысловых равенств соответствует системе математических равенств:

$x*(1/7)=u$, $y*(1/7)=v$, $x+y=(1/7)*(u+v)$.
Наименьшим целым числом, при делении которого и на 5 и на 7 получаются целые числа, является целое число 35. $y=14$, $a=x=21$. $x+y=35$.

$u=(1/7)*x=3$ и $v=y*(1/7)=2$. $c=1/7$.

Продолжим извлечение скрытых знаний. Рассмотрим валидные переменные. Валидными переменными (измеряющими то, что надо для проекта и для фермера, а не то, что доступно измерению [3]) являются переменные $u=x*c1$ и $v=y*c2$. Эти валидные переменные проявляют себя как одна переменная c ; $(x+y)*c=u+v=x*c1+y*c2$. функция вида $F(u,v)=x*c1+y*c2$, где $y=35*(2/c2)$; $x=35-y$; $3/c1+2/c2=1$; $u=(3/c1)*x$; $v=y*(2/c2)$ при ограничениях $c1\geq 2$; $c2\geq 2$ имеет решение в целых числах (5,5), дающее производственное решение 3 трактора (3 трактористов), 2 комбайна (2 комбайнера), только если будем искать ее минимум. Для этого разработаем математическую оптимизационную задачу (часть математической модели), содержащую постоянные (35,1,7,2,3) переменные, функции ограничений, целевую функцию. Минимальное значение целевой функции, равно 5 и оно достигается при $c1=5$, $c2=5$. Эти значения найдены и они соответствуют минимальному количеству техники, которую хочет роботизировать государство через свою структуру. Как видим в Смысловой модели, дополняющую предыдущие – словесную, символьную, математическую, поведенческую модели, дополнительно извлекли (добыли) знание: «государственная структура через приманку ловит на крючок фермеров, роботизируя минимальное количество техники». При этом, как показано в поведенческой модели, фермер уволит 5 водителей с низкой производительностью труда и с техникой большой степени изношенности.

Когнитивная модель

Когнитивная модель, дополненная поведенческой, смысловой моделями «познает минимальность количества техники, подвергаемую роботизации». Не смотря на рекламную завесу, прикрывающую замаскированную ловушку. Фермер втянут в воронку мероприятий по цифровизации сельского хозяйства, грядут изменения сознания фермеров, новые бизнес-процессы, повышение производительности сельскохозяйственного труда.

Нахождение максимума или другого значения целевой функции не дает решения ($c1,c2$) в целых числах. Таким образом мы через целевую функцию Оптимизационной Задачи доказали интерес государства минимизировать, а не максимизировать бюджетные расходы государства. Для познания того факта, что функция $\phi(c1,c2)=(1/7)*(x*c1+y*c2)$ минимизируется при заданных выше ограничениях $y=35*(2/c2)$; $x=35-y$; $3/c1+2/c2=1$; $u=(3/c1)*x$; $v=y*(2/c2)$, сформулируем

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оптимизационную задачу с введенной в математическую модель проекта новой целевой функцией. Оптимизационная задача не содержит других параметров, переменных, помимо тех, что рассматривались в задаче из количественной модели.

Оптимизационная задача.

Требуется найти минимальное значение функции

$\varphi(c1,c2)=(1/7)*(x*c1+y*c2)=(1/7)*(u+v) \rightarrow \min$
 при ограничениях $c1 \geq 2; c2 \geq 2; y=35*(2/c2); x=35-y; 3/c1+2/c3=1; u=(3/c1)*x; v=y*(2/c2)$. Задача минимизации функции $\varphi(c1,c2)=(1/7)*(x*c1+y*c2)=(1/7)*(u+v)$ эквивалентна задаче минимизации функции $7*\varphi(c1,c2)=(x*c1+y*c2)=(1/7)*(u+v)$. Это сокращает вид Схемы задачи $(35,2,3,1,7) \Rightarrow (c1,c2,y,x,u,v)$ до

укороченного вида $(35,2,5) \rightarrow (3,x,u,v)$. Если реализовать эту схему $(35,2,3,1,7) \Rightarrow (c1,c2,y,x,u,v)$, то количество техники 35 делится на соотношение двух переменных $3/c1, 2/c2$, удовлетворяющих соотношениям $y=35*(2/c2); x=35-y; 3/c1+2/c3=1; u=(3/c1)*x; v=y*(2/c2)$ из математической модели. Схема $(35,2,5,1,7) \Rightarrow (3,x,u,v)$ решаемой в математической (количественной) модели преобразовалась в схему $(35,2,5) \Rightarrow (3,x,u,v)$ задачи, решаемой в когнитивной модели. При этом целевая функция Оптимизационной Задачи теряет две цифры 1 и 7. Эти цифры имели существенное значение в Математической Модели, а в Когнитивной Модели они не используются (лишние).

Таблица 1

C	D	E	C	D	E
2	-35	105,00	5	21	21,00
2	70	70,00	5	14	14,00
		5,00			1,00
		175,00			35,00
Начальные значения			Значения после «Выполнить»		

Таблица 2. Формулы в ячейках (без знака =)

C	D	E
2	35-D2	3*(D1+D2)/C1
2	(2/C2)*35	2*(D1+D2)/C2
		3/C1+2/C2
		(E1+E2)

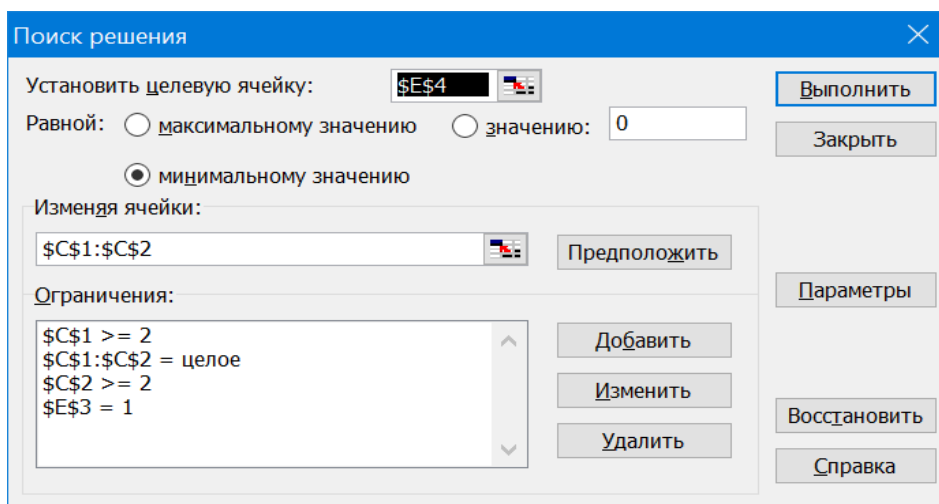


Рисунок 1

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Параметры поиска решения

Максимальное время: секунд

Предельное число итераций:

Относительная погрешность:

Допустимое отклонение: %

Сходимость:

Линейная модель Автоматическое масштабирование

Неотрицательные значения Показывать результаты итераций

Оценки: линейная квадратичная

Разности: прямые центральные

Метод поиска: Ньютона сопряженных градиентов

Buttons: OK, Отмена, Загрузить модель..., Сохранить модель..., Справка

Рисунок 2

Результаты поиска решения

Решение найдено. Все ограничения и условия оптимальности выполнены.

Тип отчета: Результаты, Устойчивость, Пределы

Сохранить найденное решение Восстановить исходные значения

Buttons: OK, Отмена, Сохранить сценарий..., Справка

Рисунок 3

При замене числа 35 на 70, или на 105, или на 140 ... оптимизационная задача $f(c1,c2)=x*c1+y*c2=(u+v) \rightarrow (\min)$ имеет те же решения.

Заключение

Мы проанализировали модель «убыточного лидерства» и выявили скрытые факты, величины, мотивы поведения участвующих сторон, проявленных через административные решения ЛПР, через кадровые решения. Выявили через когнитивную модель минимизацию субсидируемых денег, оборудования при 35,70,105 единицах техники. Государственная структура не первоначально терпит убытки (но отдает приманку) с расчетом на получение

прибыли от последующих продаж запасных частей, робототехнического оборудования. На этапах символического, математического, смыслового, поведенческого, когнитивного моделирования выявлены дополнительные факты, величины, рациональные мотивы поведения фермера (выделение для бесплатной модернизации техники большей изношенности, увольнение водителей с низкой производительности труда). Выявлен интерес государственной структуры, как менеджера, минимизировать бюджетные расходы и принуждать работодателей-фермеров решать социальные задачи – трудоустройство.

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References:

- Zhanatauov, S.U. (2013). Digital model of the formula of life. *ISJ «Theoretical&Applied Science»*, №8, vol.100, pp.136-149. www.t-science.org
- Zhanatauov, S.U. (2013). *Simvolnaja forma nevychis litelnyh algoritmov nauchnogo menedjmenta «sporting»*. Intern. Scientific and Pract. Congress "The global systemic CRISIS: new milestone in development or impasse?". Davos, (Switzerland) July 28.2015, pp. 47-52. (in Russian).
- Zhanatauov, S.U. (2022). Symbol form of robot work model. *ISJ «Theoretical&Applied Science»*, №3, vol.107, pp.824-830. www.t-science.org
- Zhanatauov, S.U. (2021). Cognitive computing: models, calculations, applications, results. *ISJ «Theoretical&Applied Science»*, №5, vol.97, pp.594-610. www.t-science.org
- Zhanatauov, S.U. (2021). A behavioral model of demand with specified prices and with a variable sum of expenses. *ISJ «Theoretical&Applied Science»*, №7, vol.99, pp.158-167. www.t-science.org
- Zhanatauov, S.U. (2020). Cognitive model of variability in negative breeding indicators. *ISJ «Theoretical&Applied Science»*, №8, vol.88, pp.117-136. www.t-science.org
- Zhanatauov, S.U. (2020). Formula of the key indicator "power of a profitable enterprise". *ISJ «Theoretical&Applied Science»*, №2, vol.82, pp.222-236. www.t-science.org
- Zhanatauov, S.U. (2020). Transformation of a system of equations into a system of sums of cognitive meaning of variability of individual consciousness indicators. *ISJ «Theoretical & Applied Science»*, №11, vol.91, pp.531-546. www.t-science.org
- Zhanatauov, S. U. (2020). Algorithm for «decreasing the "subjective level of individual ratings»». *ISJ Theoretical & Applied Science*, 09 (89), 370-382.
- Zhanatauov, S.U. (2019). Mathematical model «lower classes do not want, upper circles cannot». *Int. Scien.Jour. «Theoretical & Applied Science»*, № 11 (79): pp.565-583. www.t-science.org

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Issue

Article



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THE WAYS OF EDUCATING KIDS THROUGH THE DRAWING ACTIVITIES IN PRESCHOOL EDUCATIONAL ORGANIZATIONS

Abstract: The article discusses ways of raising children in preschool educational organizations. The teaching methodology should teach how to represent beauty in the environment, increasing interest in drawing.

Key words: developing preschoolers' creativity, distinguishing colours.

Language: English

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Introduction

Today, teaching young children in the preschool education system based on modern pedagogical technologies is the most important task of teachers and pedagogues. The reason is that the process of rapid and non-stop development of science and technology will undoubtedly make children, who are the successors of humanity, mature mentally and physically. President Sh. Mirziyoyev:

"creating conditions for intellectual, educational, aesthetic and physical development of preschool children;

increase children's provision of quality preschool education, create opportunities for wide use of it;

Moreover, it pointed out the introduction of innovations, previous pedagogical and information and communication technologies [1] in the system of preschool education. In addition to those tasks, it was obvious that young children should be educated on the basis of modern pedagogical technologies in order to develop children's creative abilities. In particular, children's mastery of drawing techniques lays the foundation for the emergence of such skills as thinking and imagining.

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"Children of preschool age can easily adapt drawing and their experiences. A two-three-year-old child learns experience of hold a pencil and brush, and learns to use it without difficulty. A six-year-old child has acquired a certain amount of skills and experiences, and they have the necessary methods to describe new objects, and can run freely on their own, relying on the imagination" [2:127].

Each teacher or pedagogue should be attentive to children's creativity. Because, when human is born, they are born with unique creativity. We should be cautious for our children's interests as far as they are our future descendants. If we – pedagogues and parents will not give attention, creativity of our children does not improve prompt.

Preschool education is aimed at the comprehensive development of children of preschool age, taking into account the talent, individual spiritual and physical characteristics, cultural requirements, the formation of spiritual dimensions, acquisition of life and social experiences. clear process» [3:46]. For that reason, all the organizations dealing with solving the problems of pre-school education have implemented a number of measures for the comprehensive development of young children. In particular, the process of introducing modern pedagogical technologies and interactive methods into practice is accelerating. Only by finding the necessary parts of the picture in the "Collage" method and placing them in the appropriate place, we can achieve the expansion of the world of thinking and thinking of children. The word "collage" is taken from the English language and means cutting and pasting. The coach-pedagogue gives the young children an understanding of one topic at a time and, accompanied by them, demonstrates ideas related to that topic with various shapes and pictures cut out and glued together. The task of cutting and gluing assignments can be done by young children or the pedagogue-coach himself.

Teaching children to draw can be divided into two types: content drawing and decorative drawing.

"The main goal of content painting is to teach the child to reflect his feelings and impressions from his surroundings. Content painting is the drawing of several contents in specific colors» [4]. If you ask a

young child to draw a picture, he will certainly draw a picture of his family, favorite item, or seasons. What color to paint this drawing depends on the child's worldview, views, and level of intellectual achievement. This method of teaching drawing reveals the world of the child's thinking.

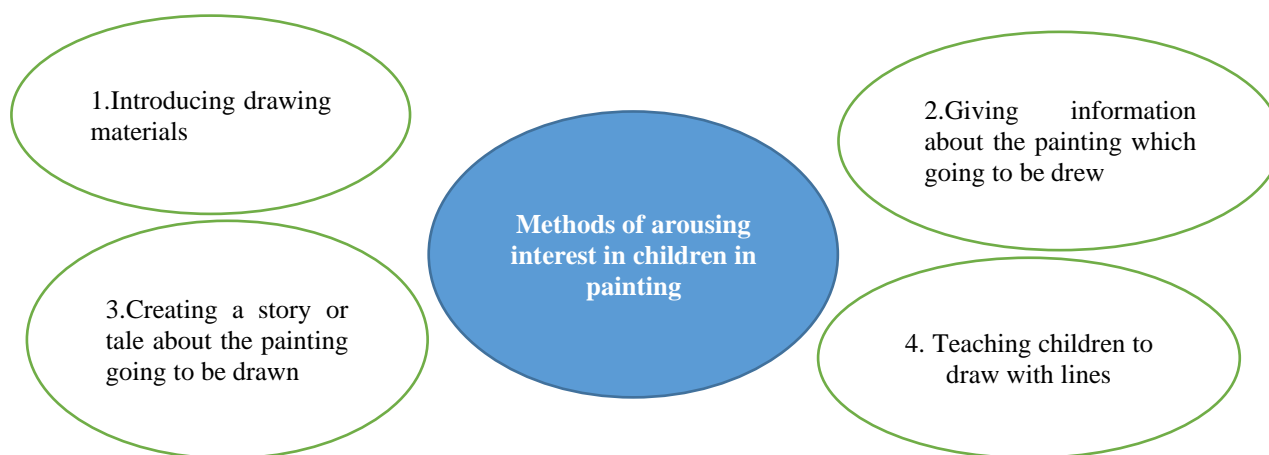
"Decorative painting - painting, like other types of activity, develops aesthetic feelings in children. When introducing children to folk art, the teacher should cultivate in them the spirit of patriotism and respect for the work of the people who are creating these works of art. Decorative painting includes the following general tasks: forming a sense of composition related to various forms of patterns in children, teaching to use the types, methods, and elements of folk art in their creativity, and strengthening the technical skills of drawing with a pencil and a brush [4:2]. In pre-school educational institutions, it is necessary to deeply make aware of children with the rich national cultural and historical heritage of the population. There is no doubt that teaching decorative painting will encourage the formation of national spirit in children's consciousness.

Including, the development of the visual activity of young children has a beneficial effect on the wide range of their creative thoughts - painting on paper particles and creating appliques. In painting applique and clay works, children's aspects of thinking, analysis, synthesis, repetition, and acceptance of concrete solutions are developed. In pre-school education, imaging activities take the most important place and help to educate pre-school children in a beautiful way. In the classes of formation of drawing activity, children acquire skills related to their creative abilities, such as drawing imaginarily, developing approximate artistic activity, and forming movement skills of hands and fingers.

Drawing takes the main place in the teaching of visual arts in pre-school educational institutions, and it is carried out in three different ways. Get different items. Content painting. Decorative painting. When teaching children to paint, we should try to understand the environment that they like, choosing the right colors from a young age.

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Picture 1.

At four years of age, a child does not know how to draw an object better or worse, but they know the meaning of drawing. They likened the pictures they made to some kind of sign of the object. The pedagogue should encourage children to try to find similar signs of the object in the picture, and therefore try to correctly describe the shapes in one line.

Teaching children how to draw: Artist marks the signs of the main shape on paper before the evidence to be drawn. This method of description is very difficult for pre-school children, especially for 3-4 year old children, because they cannot fully visualize the subject. It will be easier for them to gradually draw the object to one side.

Mastering technical skills: In this group, teaching to correct straight and curved lines is the first

task. In this case, it is indicated to draw different lines from left to right, from top to bottom. The more the form is composed, the more it is composed in the use of color. It is taught children how to use this object in light colors to make the objects visible in the picture.

In conclusion, the most important thing in teaching the ability to work is that the pedagogue should be able to give the right direction to the children. If the pedagogue gives the right direction, at least 10-15 children from each group will have a high passion for creativity, and will have a high passion for painting. We never see bad vices in our children with such a high level of creativity, we can only see people with a pure heart.

References:

- (2018). *Resolution of president of the Republic of Uzbekistan dated September 30, 2018 "On measures to improve the management of the preschool education system"*. Retrieved from <https://lex.uz/doc/-3923110>
- Urazimova, T., Xojametova, P., & Romanova, S. (2020). *"History of painting"*. -Tashkent: "Tafakkur avlodi".
- (2018). *"Educational methodological complex on the modern approach module in preschool education"*. Tashkent. Retrieved from <https://giu.uz/wp-content/uploads/4.1-1.pdf>
- (n.d.). *"Teaching drawing in Preschool educational organizations"*. Retrieved from <https://fayllar.org/maktab>
- Sadikova, Sh., & Mardonov, Sh. (2020). *"Preschool pedagogy"*. Toshkent: "Tafakkur avlodi".
- Rakhmanov, K (2019). *"Togiz tonqildaq, bir shinkildek"*. Comedy. Archive of the theatre of Young Spectators. (46 pages).
- Marshall, A. (1993). *Principles of economic science*. Moscow: Progress.
- Usmanov, B. Sh., & Radjabov, O. (2017). *Izuchenie opyta razvitiya i upravlenie innovatsiyami v klastakh*. Tashkent: Science and technology.
- Matmuratova, R.Z. (2021). K probleme hudozhestvennoj roli remarki v karakalpakskoj komedii. *Theoretical & Applied Science*, Philadelphia (USA), №2 (91), pp. 142-146.

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- DOI:10.15863/TAS (Impact Factor: ISRA - 4, 971. №22; SJIF - 5,667. №23).
10. Matmuratova, R.Z. (1187). The artistic function of the remarque genre in karakalpak comedy: 2021. №2. February. *European Journal of Psychology and Education. Molecular & Clinical Medicine*, 7(6), 2395-2402. Vol 58, ISSN: 1553-6939 P. 1183-1187. DOI: 10.17762/pae.v58i2.2258.
11. Kut`min, S.P. (2003). *Kratkij slovar` teatral`nyh terminov*. (p.46). Tumen: Izd-vo Tumenskogo gosudarstvennogo instituta iskusstv i kul`tury.

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Article



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ABOUT THE HISTORY OF CONSERVATION OF SOGDIAN WALL PAINTING FROM VARAKSHA

Abstract: This article presents the history of the study and analysis of the wall paintings found at the archaeological site of Varakhsha, one of the oldest historical-cultural regions Central Asia Sogd (Sogdiana) and known from the scientific literature. In particular, the methods of conservation of paintings in the field and laboratory conditions, the properties of chemicals, as well as the activities of the chemists and artist-restorers who were directly involved in the process of removing and conservation of wall paintings.

Key words: Ancient Sogd, Varakhsha, archeology, monument, wall painting, analysis, methods, conservation, chemist, artist-restorer.

Language: English

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Introduction

On the territory of Central Asia, in particular Uzbekistan, wall paintings were found on many monuments of the early middle ages, such as Afrasiab, Varakhsha, Balaliktepa, Tavka, etc. The paintings of these monuments have much in common, in particular raw materials, techniques and technology, style and etc. But plots, colors, drawing and painting styles, composition of paintings are differ. Since their discovery, these elegant and graceful masterpieces have demanded special attention. They need to be fixed in place, processed in the laboratory, and most importantly, their museification is a uniquely complex process. This article discusses the issue of preserving

unique monuments of this type on the example of Varakhsha wall paintings by specialists involved in this process.

Varakhsha is located 30 kilometers west of Bukhara (Uzbekistan). This is part of an ancient settlement, on the territory of which there was a residence of the Bukharkhudats, who ruled in the Bukhara oasis before the Arab conquest. In the XI century, life on Varakhsha stops. The reasons for the decline of Varakhshi was the lack of water in the irrigation systems of the oasis. The area of the settlement is 100 hectares (Fig. 1).

Historical context



Fig 1. Archaeological site Varakhsha in Bukhara. 6th-7th centuries A.D.
(photo by author)

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The wall painting of Varakhsha is not only sufficiently studied and published in the scientific literature, but are also known and popular with the general public. These works of art were discovered as a result of archaeological excavations carried out in 1937-1954 by the archaeological expedition of the Institute of History and Archeology of Uzbekistan of the Academy of Sciences of Uzbekistan under the leadership of famous archaeologist V.A. Shishkin [8, p.250]. The murals date back to the end of the 6th – 7th

centuries, and were found on the monument after the reconstruction of the palace building (Fig. 2).

The paintings on the walls of the East and Red Halls of the palace are painted in polychrome colors and differ in subject matter and color. The East Hall was dominated by a complex color combination of blue, grey, pink, yellow and red, while the Red Hall used white, red, yellow, black and their shades. As for the themes of the murals, the East Hall reflects palace life, while the murals in the Red Hall represent a hunting scene involving elephants [10, p. 55].



Fig 2. The Wall Painting of Red Hall, Varakhsha. 6th-7th centuries A.D.
(source: <https://www.centralasia-travel.com>)

Technique of Wall Painting

The painting technique is the same as for the paintings found in other similar monuments of Central Asia. That is, a wall made of raw brick or “*pakhsa*” (sometimes in mixed technique from both) is plastered with clay mixed with straw (sometimes cane). A thin second layer is applied on top of the clay plaster layer, which serves as the base. A white paint is applied to a smooth surface, consisting of a mixture of chalk and natural glue (sometimes “*ganch*” – *clay gypsum*), and this layer serves as a background. The researchers described in detail the composition of the glue added to the dyes, noting that it is obtained from the root of the *eremurus* plant, common in Central Asia. The author also established that the plaster was applied in two layers: the first (black plaster) was applied directly in a thick layer on the wall, and the next (white plaster) was applied on top of it. The last layer is carefully sanded with clay to get a smooth surface. Next, a thin white primer was applied to apply the pattern. According to V.N. Kononova, analysis of a soil sample in Panjakent shows that the primer was made of gypsum with the addition of kaolin [8, p.151], (Fig. 3).

The History of Conservation

As noted above, the Varakhsha murals are known and popular not only among scientists, but also among the public. However, little is known about the colossal work of restorers, thanks to whom the murals were saved and survived to this day. From the notes of V.A. Shishkin, can find out that archaeologist L.I. Albaum, architect-painter V.A. Nilsen, V.N. Kedrin and G.N. Nikitin took part in the 1949 expeditions. There are records in archival materials, the artist-restorer P.I. Kostrov and E.G. Sheinina were invited to the expedition from the Hermitage for a short time. Among the diary notes of 1950, it is recorded that numerous fragments of paintings were found among the dumps, and five large fragments were copied and painted with watercolors. According to the description of V.A. Shishkin, the painting technique was similar to the paintings on the palace wall, but differed in background and drawings. Examining these fragments, the researcher noticed that these images belong to a much later period, i.e. 11th century [3, p. 6].

¹ Pakhsa – a multi-layer pressed clay, rectangular in shape, used for buildings in Central Asia.

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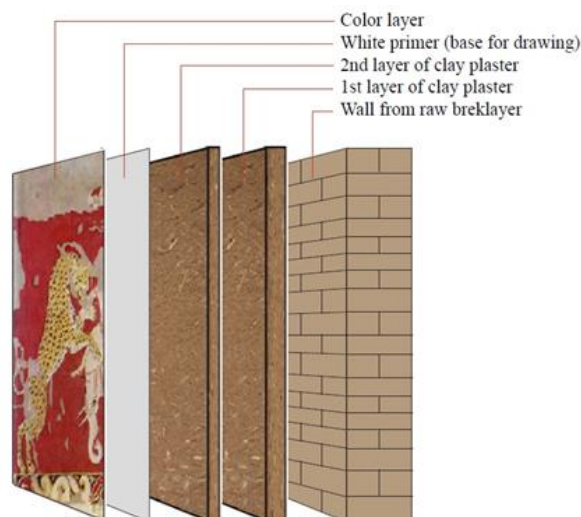


Fig 3. The structure of Varakhsha's Wall Painting
(based on Shishkin V.A. Varakhsha. Ed. AN SSSR. 1963. – P. 151)

Under the guidance of the artist-restorer P.I. Kostrov, restorers I.B. Bentovich and E.G. Sheinin, who worked in the Hermitage in the late 40s of the last century. I.B. Bentovich and E.G. Sheynina, in collaboration with chemists, worked on the creation of new developments in the field of conservation and restoration. They were the first to create a solution of the chemical polybutyl methacrylate (PBMA) in

organic solvents, which was developed to fix wall paintings. This elaboration was first used in the conservation of paintings found on the monument of Penjikent in 1952-1954 with the participation of I.B. Bentovich and E.G. Sheinina directly under the guidance of P.I. Kostrov [6, p. 139].

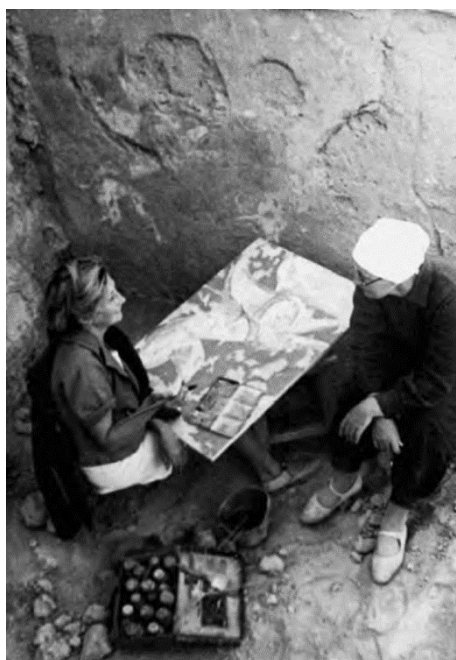


Fig 4. Restorers in process of removing wall painting layer (source: IICAS,2015)

In the 1970s, the Institute of Archeology of the Academy of Sciences of the Republic of Uzbekistan and the Moscow Institute of Restoration organized a joint expedition to continue researching the monument. It was necessary to remove the paintings on the southern wall of the Blue Hall. Later, in 1987-

1991, excavations were carried out at the site by the "Central Asian Archaeological Expedition" led by G.V. Shishkina. As a result, a large collection of architectural decorations was discovered on the territory of the Palace, and fragments of the painting of the Red and Western Halls of the Palace were

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copied, among which was a hunting scene with elephants in the Red Hall, known from scientific and popular literature [2, p. 88].

It should be noted that other scientific institutions were also engaged in the conservation of the Varakhsha paintings. For example, in 1974, specialists from the All-Union Central Research Laboratory for the Conservation and Restoration (now The State Research Institute for Restoration – GOSNIIR) of museum valuables worked at this monument, who conducted experiments on the field conservation of monumental paintings on a clay basis. At the first stage, they used new synthetic polymeric substances to strengthen the layers of paint and clay in the paintings. The experience of using polyvinyl alcohol (PVA) was also tested to increase the mechanical strength of the edges of the walls and seal the initially hardened surfaces (Fig. 4). As a test, on some fragments, where the remnants of the paint layer, preserved by the experts, were fixed with different resin adhesives in different solvents. In particular, low-viscosity and high-viscosity PBMA

solution, polymers of the BMK-5 type, PVA and solvents such as xylene, acetone, ethyl acetate, propanol and ethyl alcohols, water were used [4, p. 11].

The specialists of this Central Laboratory also carried out physical and chemical analyzes of soils and pigments of magnificent paintings found in many ancient archaeological sites of Central Asia. In particular, the analysis of the red paint used in the painting of Varakhshi showed that it was made from mercury (HgS). In their studies, they used the methods of microcrystallography, chromatography and infrared spectroscopy. As a result of these analyses, the authors were able to isolate the components used in painting - binders containing proteins and carbohydrates. It turned out that as binding pigments in the processing of paintings, the craftsmen used animal (gluten) and casein, flour glue, as well as egg white and wood glue (gum), as well as carbohydrates such as honey, sugar and milk [5, p. 17].



Fig 5. Restorers in process of fixing wall painting layer (source: IICAS,2015)

The Restorers, who involved conservation

As for the restorers, first of all it is necessary to mention P.I. Kostrov, who made a significant contribution to the preservation of the murals. In Information about Pavel Ivanovich Kostrov there is fiction, for example, in the novel by Yu.B. Ripenko and V.A. Chernukhin "General Pyadusov" says that before the war he worked as an artist-restorer in the Hermitage. Before the war, he received the rank of senior lieutenant and graduated from the Russian Academy of Arts, then continued his education in Hamburg and was fluent in German. In the regiment, he was an artillery reconnaissance, translator,

organizer and artist; even in the war he found time to be creative. According to the memoirs of colleagues, there was no one to replace him. As the authors of the novel describe, his sketch of the enemy defense was more accurate than in the photo. Artillery commanders noted that the drawing by P.I. Kostrov was a help and a great help, so that his service was highly appreciated, and he was awarded the Order of the Red Star [7, p. 420].

In 1927-1928 scientific expedition of Museum of Oriental Cultures (now The State Museum of Oriental Art) in Moscow led by B.P. Denike conducted archaeological research. This expedition also included

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Petr Kornilov, at that time the head of the graphic department of the State Russian Museum in St. Petersburg, an art critic, professor. As a photographer and restorer, he was directly involved in the processing of plaster copies of pylons and carved plaster ornaments on the walls of the Reception Hall of the Palace of the Termez kings. Later P.E. Kornilov was the deputy director of the Bukhara Museum of Local History and visited many cities of Uzbekistan. He photographed the life of the urban and rural population, as well as architectural and archaeological monuments in the color characteristic of that period (Fig. 5).

In the scientific literature of the 1930s there is information that, for repair work in the Kukaldosh Madrasah in Bukhara under the leadership of V.A. Shishkin was attended by Nikolai Bachinsky [3, p. 8].

Research by scientists of Varakhsha murals continues. So, at one of the scientific conferences in 2018, the American researcher Aleksandr Naymark noted in his report that the gaps in the paintings were cut off intentionally. That is, before the final destruction of the roof structure in the Red Hall, someone cut off several fragments of the painting. True, V.A. Shishkin considered these violations an act of vandalism by Muslim iconoclasts. However, A. Naymark interprets this phenomenon differently. According to him, some fragments, such as a human head or the wings of a griffin, were very skillfully cut and removed. The one who cut out pieces of paintings in the Red Hall first marked the boundaries of the pieces of interest to him, cutting out circles around them. Then he cut deep into the wall, so that the final product of his work looked like a cone, the flat base of which was the painted surface of the wall. In other words, these cuts appear to be the result of very careful and painstaking work aimed at removing fragments of

walls with an intact painted surface. He explains this unusual phenomenon by the transition of elements of the pre-Islamic artistic tradition into the art of the early Islamic period [1, c. 20].

Conclusion

In conclusion, it should be noted that the study of the Varakhsha murals gives an idea of the high artistic school of the early medieval Sogd. An analysis of the technique of applying murals and their components, as well as methods of conservation and restoration, showed that each school has its own characteristics. On the Varakhsha samples, these features are also noticeable in the composition of plots, color schemes, etc. It should be noted that many specialists took an active part in the process of removing the paintings from the walls and their processing. In this work, they have made a huge contribution, trying their best, applying best practices and adhering to a scientific approach. The study of studies on conservation and restoration provides important information to historians and art historians in understanding the plots and images depicted on the murals. And most importantly, by studying the history of previous conservation work, we get the basis for the correct implementation of practical work that can be undertaken in the future in connection with the discovery of new wall paintings.

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References:

1. Naymark, A. (2003). "Returning to Varakhsha" in *The Silk Road Foundation Newsletter*, vol. 1, issue 2 (December 2003), pp.1-22.
2. Alpatkina, T.G. (2002). "Gancheviy dekor dvortsa Varaxshi iz fondov Gosudarstvennogo muzeya Vostoka: novie otkritiya". *Materialnaya kultura Vostoka*, Vip. 3, Moskva, pp. 86-95.
3. (2015). IICAS. "Arxivnie materialy Gosudarstvennogo muzeya Vostoka". *Arxeologiya Sentralnoy Azii: arxivnie materialy*. Tom II. (p.6, 232). Samarkand.
4. Buriy, V.P., & Obelchenko, O.V. (1976). "Raboti VSNILKR na gorodishe Varaxsha" in *Restavratsiya, issledovanie i xranenie muzeynih xudojestvennih sennostey*. (pp.10-11). Moskva.: IPKI. Vip. 1.
5. Jelninskaya, Z.M. (1976). "Analiz pigmentov i svyazuyushih srdeneaziatskoy jivopisi na ganchevom grunte lessvoy shtukaturke" in *Restavratsiya, issledovanie i hranenie muzeynih xudojestvennih sennostey*. (pp.16-18). Moskva.: IPKI. Vip. 1.
6. Kostrov, P.I. (1959). "Issledovanie, opit rekonstruktsii i konservatsiya jivopisi i skulpturi drevnego Pandjikenta" in *Skulptura i jivopis drevnego Pyandjikenta*. (pp.139-183). Moskva.
7. Ripenko, Yu.B., & Chernuxin, V.A. (2008). "General Pyadusov". (p.420). Moskva.

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8. Shishkin, V.A. (1963). *“Varaxsha”*. (p.250). Moskva: Izd-vo AN SSSR.
9. Shishkin, V.A. (2015). *“Arxeologicheskie raboti 1934-1951 na gorodishe Varaxsha” in Arxeologiya Sentralnoy Azii*. Arxivnie materialy. Tom 2. (pp. 49-74).
10. Shishkina, G.V. (1991). *“Varaxsha” in Kultura i iskusstvo drevnego Uzbekistana. Katalog vistavki*. (p.55). Moskva.: Vneshtorgizdat. T.2.

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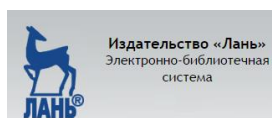
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