

publisher.agency
Sweden

September , 2023

No 4



Stockholm, Sweden

7-8.09.2023

International
Scientific
Conference

Modern Scientific Technology

UDC 001.1

P 97



Publisher.agency: Proceedings of the 4th International Scientific Conference «Modern scientific technology» (September 7-8, 2023). Stockholm, Sweden, 2023. 116p

ISBN 978-4-9444-8633-5

DOI 10.5281/zenodo.8333157

Editor: Sandra Blomqvist, Professor, Stockholm University University of Technology

International Editorial Board:

Ida Abrahamsson

Professor, Uppsala University

Isabelle Fredriksson

Professor, Lund University

Linnéa Hedlund

Professor, University of Gothenburg

Lars Strömberg

Professor, Stockholm University

Carina Eklund

Professor, Karolinska Institutet

Siv Löfgren

Professor, Umeå University

Kenneth Martinsson

Professor, KTH Royal Institute of Technology

David Nilsson

Professor, Linköping University

David Dahlberg

Professor, Swedish University of Agricultural Sciences

Sebastian Sjöberg

Professor, Luleå University of Technology

Inga Henriksson

Professor, Karlstad University

Mikael Fransson

Professor, Örebro University

Karl Nyström

Professor, Mid Sweden University

Hanna Lind

Professor, Malmö University

editor@publisher.agency

<https://publisher.agency/>

Table of Contents

Physical and Mathematical Sciences

ЗЕРТТЕУ ӘДІСІН ҚОЛДАНЫП, ОҚУШЫЛАРДЫҢ ЗЕРТТЕУШІЛІК ДАҒДЫСЫН ҚАЛАЙ ДАМУЫҒА БОЛАДЫ?5

*Н.Қ.БАЛАЖІГІТОВА
Б.С. БЕЙБІТОВ
Ә.А. АДІЛХАНОВ*

Technical Sciences

SALES FORECASTING AND DEMAND PLANNING WITH ANALYTICS12

AIGERIM MOMYNZHANOVA

SYSTEMS ENGINEERING FOR SUSTAINABLE DEVELOPMENT GOALS19

ASSEMGLUL YERZHANOVA

Economic Sciences

THE INNOVATION AND CREATION OF MARKETING STRATEGY OF THE TOURISM COMPANY `ANUR TOUR`26

МАХЛИҒО YURIEVA

ГОСУДАРСТВЕННЫЙ АУДИТ РЫНКА ЦЕННЫХ БУМАГ РЕСПУБЛИКИ КАЗАХСТАН38

*КАБДЕШЕВ ДАМИР КАИРОВИЧ
МУРАТОВА СЕВАРА БАХЫТОВНА*

ISSUES OF DEVELOPING THE EXPORT POTENTIAL OF THE REPUBLIC OF KAZAKHSTAN45

*TATYANA PUPYSHEVA
ANTON KURILKIN*

НЕКОТОРЫЕ АСПЕКТЫ ФИНАНСИРОВАНИЯ ТУРИЗМА КАК ВАЖНОГО СЕКТОРА СФЕРЫ УСЛУГ АЗЕРБАЙДЖАНА.....53

ИСМАИЛЗАДЕ ЮСИФ ИСРАФИЛ

RISK MANAGEMENT IN THE SUPPLY CHAIN: BUILDING RESILIENCE AND ENSURING CONTINUITY.....58

ZAHRA SAMADOVA ISA

THE MAIN DIRECTIONS OF PROVIDING SUSTAINABLE ECONOMIC DEVELOPMENT IN THE TERRITORIES LIBERATED FROM OCCUPATION63

KONUL GOCAYEVA

Agricultural Sciences

PRODUCTIVE INDICATORS OF WATERFOWL IN THE NORTHERN REGION OF KAZAKHSTAN70

*SHAMSHIDIN ALZHAN SMAILOVICH
TEMIRBEKOVA GULZHAN AYAZOVNA
NYURENBERG ASSEM SAGANDYKOVNA
BEKMAGANBETOV NURUMBET ESIMOVICH*

Philological Sciences

TYPES OF OCCASIONALISMS IN BRANDON SANDRSON'S `THE STORMLIGHT ARCHIEVE`72

*ALTYNBEKOV AZAT MURATOVICH
SHARA MAZHITAeva
KAKZHANOVA FAZIRA AIDARHANOVNA*

LINGUISTIC RELATIVITY AND TIME-SPACE PERCEPTION77

*D.M. ABITAY
G.K.BEKKOZHANOVA*

Legal Sciences

THE ROLE OF THE UN IN THE SETTLEMENT OF WORLD CONFLICTS.....84

TEMIRGALIYEV YELDOS

Historical Sciences

EFFECTIVE INVESTIGATION OF CONTROVERSIAL HISTORICAL TOPICS REQUIRES EVIDENCE FROM MORE DISCIPLINES OR MANY ALTERNATIVE SOURCES.....89

ISMAIL N. KHAGANI

Medical Sciences

BREAST CANCER: EPIDEMIOLOGY, ALGORITHM AND SCREENING RESULTS IN THE REPUBLIC OF KAZAKHSTAN.....100

ARMAN A. KHOZHAYEV
AYAULYM M. NURMUKHAMBET
SHUAK K. MUKHTAR
NURSULTANKHAN E. AKKAZIN
ZHANARA K. MAYUKOVA
MOLDIR K. YELBASSY
NAZERKE K. TURARBEKOVA
ADELYA A. SAMIKHOVA
AIBEK B. BEKALI

CERVICAL CANCER: EPIDEMIOLOGY, ALGORITHM AND SCREENING RESULTS IN THE REPUBLIC OF KAZAKHSTAN.....106

ARMAN A. KHOZHAYEV
AKBOTA B. TOLEGEN
SHOLPAN M. AMIROVA
ADINA T. ADILKHANOVA
GULSIMA K. AIDABASSOVA
TOMIRIS S. ELUBAEVA
KARLYGASH ZH. SHARIPBAY
ARAILYM ABILKAIYRKYZY
BALZIYA M. ZHANTAKBAY

COLORECTAL CANCER: EPIDEMIOLOGY, ALGORITHM AND SCREENING RESULTS IN THE REPUBLIC OF KAZAKHSTAN.....111

ARMAN A. KHOZHAYEV
MADINA N. DUKENBAY
ALTYN A. TASSYBEKOVA
TOGZHAN ZHAKYP
ZHANASYL K. KUDAIBERGEN
SHYNGGYS E. ZHUMASH
YERNUR N. TILEUKHANOV
AIDANA O. BASSYMBEK
MADINA N. AMANZHOLOVA

Physical and Mathematical Sciences

ЗЕРТТЕУ ӘДІСІН ҚОЛДАНЫП, ОҚУШЫЛАРДЫҢ ЗЕРТТЕУШІЛІК ДАҒДЫСЫН ҚАЛАЙ ДАМУҒА БОЛАДЫ?

Н.Қ. Балажігітова

Б.С. Бейбітов

Ә.А. Аділханов

Талдықорған қаласындағы физика-математика бағытындағы Назарбаев Зияткерлік мектебінің физика пәнінің мұғалімдері

Қазіргі таңда Назарбаев Зияткерлік мектептеріндегі бағалау жүйесі бөлім бойынша жиынтық бағалау (БЖБ), тоқсандық жиынтық бағалау (ТЖБ) және сыртқы жиынтық бағалау (СЖБ) болып үшке бөлінеді. Оқушылардың БЖБ және ТЖБ нәтижесі тоқсандық бағаға әсер ететін болғандықтан, бұл өзекті мәселе деп санаймын. Іс- әрекеттегі зерттеуді (Action research) жүргізу үшін проблеманы анықтау мақсатында 10 сынып оқушыларының тарау бойынша және тоқсандық жиынтық бағалау жұмысының нәтижелерін талдадым. ТЖБ кезінде оқушылардың ойлау дағдыларының деңгейі (білу, түсіну, қолдану, талдау, жинақтау және бағалау) тексеріледі. Талдау барысында жоғары дағдылар тобы (талдау, жинақтау және бағалау) бойынша оқушыларда қиындықтар туындағандығы анықталды. Сонымен қатар зертханалық жұмыстар жүргізу барысында оқушылардың жинақтау, талдау және бағалау дағдыларының төмендігі айқындалды.

Өзекті мәселе:

10-сынып оқушыларының физика сабағында ақпаратты талдау және сипаттау дағдыларын қалай дамытуға болады?

Іс-әрекеттегі зерттеу жобасы Талдықорған қаласы физика-математика бағытындағы Назарбаев Зияткерлік мектебінде жүргізілді. Зерттеу жүргізу үшін 10-сынып оқушыларын алдық. Іс -әрекеттегі зертеуді жүргізу үшін бірқатар мәліметтер жинадық: 10 сынып оқушыларының тарау бойынша және тоқсандық жиынтық бағалау жұмыстарының нәтижесі, физика пәні мұғалімдерімен сұхбат, мектептің психологынан оқушылар туралы ақпарат алдық. Ата аналармен сұхбат жүргізу барысында байқағанмыз, олар да балаларының жетістікке жетуіне қызығушылық танытты.

Зерттеу барысында мәлімет жинау

Тестілеу. Іс- әрекеттегі зерттеу үдерісінің басында оқушылардың ойлау дағдыларының сапасы туралы нақты нәтиже алу үшін 1- тоқсан бойынша жиынтық бағалаудың нәтижесін алдық.

		ТЕСТОВЫЕ ВОПРОСЫ									СТРУКТУРНЫЕ ВОПРОСЫ							Итого (max 50)	сапасы %	
		1	2	3	4	5	6	7	8 4 балл	9 3 балл	10 3 балл	11 4 балл	12 4 балл	13 3 балл	14 5 балл	15 6 балл	16 6 балл			17 5 балл
Ағади	Нұрберген	1	1	1	1	1	1	1	1	2	3	3	4	3	2	3	3	3	36	72
Амангазы	Нұрай	1	1	1	1	1	1	1	1	2	3	2	2	2	1	2	2	2	26	52
Амантұр	Ансар	1	1	1	1	1	1	1	1	2	3	3	2	2	2	3	3	3	31	62
Закхьянов	Мирас	1	1	1	1	0	1	0	1	3	3	4	3	3	5	3	6	3	39	78
Косанов	Аспандияр	1	1	1	1	0	1	1	2	2	2	2	2	2	2	2	3	2	27	54
Майкайдар	Диана	1	1	1	1	1	1	1	2	2	2	2	2	2	1	1	1	1	23	46
Маханбетова	Ақбота	1	1	1	1	1	1	1	2	2	2	2	2	2	1	1	1	1	24	48
Нусупов	Мирас	1	1	1	1	1	1	1	3	3	3	3	3	3	2	2	1	1	33	66
Туғанбаева	Еңлік	1	1	1	1	1	1	1	2	2	2	2	2	2	3	3	3	2	30	60
Түлеева	Ажар	1	1	1	1	1	1	1	3	3	3	3	3	3	6	3	3	3	40	80
Ақан	Акерке	1	1	1	1	1	1	1	3	3	3	3	3	3	2	2	2	2	33	66
Ғалибек	Қайрат	1	1	1	1	1	1	1	2	2	2	2	2	2	2	3	3	5	32	64
Исәев	Естай	1	1	1	1	1	1	1	3	2	2	2	2	2	3	6	6	3	38	76
Садькова	Алина	1	1	1	1	1	1	1	2	2	2	2	2	2	2	3	3	3	30	60
Мәліс	Мирас	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	1	26	52
Ахметқұлова	Маржан	1	1	0	1	0	1	0	3	2	2	2	4	3	5	6	6	5	42	80
Жайлаубай	Жамиля	1	1	0	1	0	1	0	2	2	2	2	2	2	2	3	3	3	27	54
Мұхаметқали	Тұрар	1	1	0	1	1	1	0	2	2	2	2	2	3	5	6	3	2	34	68
Тоқжожа	Томирис	1	1	1	1	1	1	1	2	2	2	2	2	3	3	6	6	4	39	78
Саду	Амина	1	1	1	1	1	1	1	2	2	2	2	2	2	5	3	3	1	31	62
Серикова	Динара	1	1	1	1	1	1	1	1	3	3	3	3	2	2	3	4	3	34	68
Садькова	Алина	1	1	1	1	1	1	1	2	2	2	2	2	2	2	3	3	3	30	60
Мәліс	Мирас	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	1	26	52
Ахметқұлова	Маржан	1	1	0	1	0	1	0	3	2	2	2	4	3	5	6	6	5	42	80
Жайлаубай	Жамиля	1	1	0	1	0	1	0	2	2	2	2	2	2	2	3	3	3	27	54
Мұхаметқали	Тұрар	1	1	0	1	1	1	0	2	2	2	2	2	3	5	6	3	2	34	68
Тоқжожа	Томирис	1	1	1	1	1	1	1	2	2	2	2	2	3	3	6	6	4	39	78
Саду	Амина	1	1	1	1	1	1	1	2	2	2	2	2	2	5	3	3	1	31	62
Серикова	Динара	1	1	1	1	1	1	1	1	3	3	3	3	2	2	3	4	3	34	68
Ерулан	Мейіржан	1	1	1	1	0	1	1	2	2	2	3	3	5	4	4	4	4	37	74
Кенжебек	Айжан	1	1	0	1	1	1	1	4	3	3	4	3	3	5	6	3	3	43	86
Мадиханова	Камила	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	27	54
Полатбек	Ернур	1	1	1	1	1	1	1	3	3	3	3	3	5	6	3	2	40	80	
Талаптан	Жансая	1	1	1	1	1	1	1	2	2	2	2	2	2	6	6	5	38	76	
Хайдар	Айнолпан	1	1	1	1	1	1	1	3	3	2	2	2	2	4	4	4	4	35	70
Хайдар	Құралай	1	1	1	1	0	1	0	3	3	3	3	3	3	4	3	5	3	38	76
Шерали	Гүлсанем	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	28	56
		29	29	24	28	23	29	24	64	68	69	71	71	70	83	103	95	81		
Номера вопросов		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17		
Число учеников которые ответили правильно		29	29	24	28	23	29	24	64	68	69	71	71	70	83	103	95	81		
Процент %		93,55	93,55	77,42	90,32	74,19	93,55	55,8	51,61	73,1183	74,194	57,258	57,258	75,269	53,548	55,38	51,0753	52,26		

Оқушылардың басым бөлігі білу, түсіну және қолдану дағдыларын қалыптастыруға берілген тапсырманы сәтті орындағанмен, жоғарғы дағдыларды (талдау, сипаттау, тұжырымдау, салыстыру, қорытынды жасау және бағалау) дамытуға берілген тапсырмаларды орындау барысында қиындықтар туындады. Нәтижені талдай отырып, 50% -ға жуық 10-сынып оқушыларының практикалық жұмысты талдау дағдылары мен графикті сипаттау дағдыларының төмендігін байқадық. ТЖБ жұмыстарын орындау барысында максимал баллды жинай алмауының бір себебі де осы деп ойлаймыз. Сауалнама, әңгімелесу және бақылау нәтижесі төмендегі кестеде келтірілген.

Мәлімет жинау әдістері	Барысы	Нәтижесі
Сауалнама	Практикалық жұмыс бойынша сауалнама жазбаша жүргізілді, 35 оқушы қамтылды	1) Эксперимент барысында өлшеулер жүргізуге қиналады-10 оқушы 2) Құралдың қателіктерін анықтауда қиналады-20 оқушы 3) Тәуелділік графикін тұрғызуда қиналады-25 оқушы 4) Кедергілер мен жақсарту жолдарын жазуға қиналады-32 оқушы
Сұхбаттасу	Оқушыларды ашық әңгімеге тарту, олардың қажеттіліктерін білуге мүмкіндік берді.	Практикалық жұмысты жеке орындағысы келетін оқушы-32 Жұппен орындағысы келетін оқушы-5 Жұмыстың нәтижесі қызықтырады-25

	Психологтардан оқушылардың когнитивті қажеттіліктері туралы ақпарат алдым.	Жұмыстың бағалау бөлімін орындауды қаламайды-30
Бақылау	Оқушылардың дағдыларын, қабілеттерін және бірлескен жұмыста қзара қарым-өатынасын анықтауға көмектесті	Кейбір оқушылар белгілі бір оқушымен ғана жұптасып жұмыс жасағанды ұнатады. Кейбір оқушыларға оқу мақсатына қол жеткізудегі күнделікті сабақтағы жетістіктері ұнайды. Кейбір топтарда оқушылар бір-біріне көмекке ұмтылу арқылы өзінің білімін шыңдай түседі.

Бұл алынған мәліметтерге сүйеніп, өзіміздің іс-тәжірибемізге енгізген ең алғашқы өзгерістер, сабақ үстінде орындайтын тапсырмалардың түрін өзгерттік. Оқытуда білу, түсіну және қолдану дағдысын дамытатын тапсырмаларды көп қолданатын едік. Қазіргі таңда біріншіден сабақ үстінде талдау, жинақтау және бағалау дағдысын дамытатын тапсырмаларды жиі қолданатын болдық, екіншіден жаңа тақырыпты түсіндіргенде үнемі зерттеу әдісін(эксперимент) қолдануды әдетке айналдырдық.

Әрекет пен нәтижені бағалау. Алынған мәліметтер бойынша 10-сынып оқушыларында қалыптасуы тиіс дағдыларды дамыту үшін қолданылған құралдар үлгісі төменде келтірілген.

1.СИНТЕЗ-АҚПАРАТТЫҚ КАРТОЧКА

Мақсаты: Теориялық материалды оқуды үйрету

- Құбылыстар туралы
- Физикалық шамалар туралы
- Өлшем бірліктер туралы
- Заңдылықтар туралы
- Физикалық формулалар туралы

Құбылыстар туралы

Факт. Эксперимент үшін газ жанарғысын жағып боялған суы

бар колбаны қыздыра бастады. Суға ақырындап термометрді батырады.

Нәтижесінде судың ішінде жоғары көтерілген төмен қозғалған ағын және

термометрдің көрсеткішінің артқаны байқалады.

Құбылыстардың атауы	Немен түсіндіруге болады	Бұл құбылыстың туындауына не себеп	Құбылысты тудырушы көздер	Нәтиже (салдар)	Қолдану
Конвекция	Фактілер арқылы	Газ горелкасының қосылуы	Газ жанарғысы, жоғарғы қабаты суық су	Біз тек колбаның түбін ғана қыздырсақ та құбылыстың нәтижесінде сұйықтың жоғарғы қабаты қызады.	Тұрмыста және техникада

Заңдылықтар туралы

Заңның атауы	Не туралы	Тұжырымдама	Формула	Қандай шамалар арасындағы байланысты орнатады	Ол қандай байланысты айқындайды	Қолдану шегі	Кім, қашан ашқан	Қолданылуы
Архимед заңы	Кері итеруші күш	Сұйыққа батырылған денеге оның сұйыққа батқан көлеміндегі сұйықтың салмағына тең ығыстырушы күш әрекет етеді	$F = \rho g V$	Кері итеруші күш және ығысып шыққан сұйықтың салмағы	Кері итеруші күш сұйықтың тығыздығына және сұйыққа батырылған дененің көлеміне тура пропорционал	Заң дене сұйыққа батырылған кезде әрекет етеді	Грек ғалымы Архимед (б.з.б. 287-212 ж.)	Корабльдердің, сүңгуір қайықтардың конструкциясын есептеуде және ауа шарын ұшыруда.

Нәтижесі. Бұл карточканы қолдану барысында оқушылар теориялық материалды қалай оқу керектігін үйрене бастағанын байқадық. Карточканың тиімділігі оқушылар тұжырымдама жасауда, тәуелділікті сипаттауда және қолданысын түсіндіруде жеңіл жауап беруге дағдыланады. Теориялық білімді жүйелеуге мүмкіндік береді.

2. ОЙЛАУ ОПЕРАЦИЯЛАРЫНЫҢ БІРІ САЛЫСТЫРУ КЕСТЕСІН ҚОЛДАНУ

Салыстыру-адамның ең қымбат ақыл-ой сыйы

Орыс физиологы және ойшыл: И.М.Сеченов

Негізгі салыстырамыз	Қалай пайдаланады	Дене немен әрекеттеседі	Неге әрекеттеседі	Қайда түсірілген	Түсірілу нүктесі	Қалай бағытталаған	Белгіленуі	Формуласы
Ауырлық күші	Дене әрекеттескенде	Жермен	Денеге	Денеге	Дененің ауырлық центрі	Вертикаль төмен	F	$F=mg$
Салмақ	Дене әрекеттескенде	Тіреумен немесе аспамен	Тіреуге, аспаға	Тіреуге	Тіреудің бетіне	Вертикаль төмен	P	$P=mg$

Нәтижесі. Салыстыру кестесі арқылы оқушылардың ойлау операциясы дамиды. Физикалық шамалардың арасындағы ұқсастық пен айырмашылықты ажыратуда көп көмегі болды. Физикалық шамалар туралы жан-жақты білім алады.

3. САБАҚ БАРЫСЫНДА ДЕМОНСТРАЦИЯЛЫҚ ТӘЖІРИБЕЛЕРДІ ВИДЕО КӨРУ АРҚЫЛЫ ТАЛДАУ

Оқушыларға тәжірибелер бойынша видео ұсынылады.

Оқушылар видеоматериалды бақылайды және талдау кестесін толтырады.

«Талдау кестесі»

№	Не істеді?	Қандай нәтиже алды?	Қорытынды	Тәуелсіз айнымалы	Тәуелді айнымалы	Тұрақты шама
1	S_1 және S_2 когерентті жарық көздерінің арақашықтығын d өзгертпей, экраннан алыстатты	Орталық максимумнан интерференциялық сурет байқалған нүктеге дейінгі қашықтық артады	Орталық максимумнан интерференциялық сурет байқалған нүктеге дейінгі қашықтықтың артуы жарық көзінен экранға дейінгі қашықтыққа тура пропорционал	Экраннан жарық көзіне дейінгі қашықтық	Орталық максимумнан интерференциялық сурет байқалған нүктеге дейінгі қашықтық	Жарық көздерінің арақашықтығы

Нәтижесі. Оқушылар физикалық шамалар арасындағы тәуелділікті анықтауға және жұмыстың нәтижесіне қорытынды жасай алуға дағдыланады.

4. ТОПТЫҚ ТАЛҚЫЛАУ СҰРАҚТАРЫН ҰСЫНУ

1. Массалары бар барлық денелер қалай өзара әрекеттеседі?
2. Гравитациялық өрісті қалай сипаттайсыз?
3. Ара қашықтығы өзгерсе массасы бар денелер өзара қалай әрекеттеседі?
4. Әр қолда тұрған алма арасындағы тартылысты неліктен сезбейміз?

5. ВИРТУАЛДЫ ЗЕРТХАНАЛЫҚ ЖҰМЫСТАРДЫ ОРЫНДАУ БАРЫСЫНДА АҚПАРАТТЫ ТАЛДАУҒА ҮЙРЕТУ:

<https://phet.colorado.edu/en/simulation/gravity-and-orbits>

1. Объектіге гравитациялық күш қай бағытта әсер етеді?
2. Объектінің жылдамдығы қай бағытта?
3. Гравитациялық өрісті ескермесеңіз не болады? Неліктен болады?
4. Егер сіз күннің массасын арттырсаңыз Жермен не болады?
5. Егер сіз күннің массасын кемітсеңіз Жермен не болады?
6. Жер / спутник кнопоксын басыңыз. Спутник жылдамдығын арттыр, не байқағаныңды түсіндір.
7. Спутник жылдамдығын кемітіңдер. Не байқадың? Түсіндір.
8. Спутниктің орнын ауыстыр. Не болатынын сипаттаңдар. Жерден алыс тұрақты орбитаны жасай аласың ба? Қалай жасағаныңды түсіндір.
9. Тек спутниктің массасын өзгертіңдер. Бұл спутник орбитасын өзгерте ала ма? Неліктен және қалай болатынын түсіндір.

Нәтижесі. Виртуалды жұмыстарға талдау жасауды үйренеді. Талдау жасау оқушылардың ойлау дағдыларының жоғарғы деңгейінің қалыптасуына әсер етеді.

Проблемаға байланысты сұрақтар және қауіптер

Зерттеу барысында келесі сұрақтар туындады:

Оқушылардың жас ерекшелігіне таңдалынып алынған дағдылар жүзеге асады ма?

Таңдалынып алынған дағдыларға сәйкес тапсырмалар құрастыру қиындық туғызбай ма?
Мектептегі іс-әрекеттегі зерттеу бойынша ой толғаныс. (Тиімділігі, кедергілер)

Іс-әрекеттегі зерттеу мұғалімнің оқушымен біріге отырып оқу процесіндегі кедергілерді айқындап, оны шешу жолдарын қарастыруға бағытталған командалық жұмыс. Оқушыда сенімділік, өз проблемасын шешу жолдарын қарастыруға деген мақсат міндеттері тұрады. Зерттеу барысында мен бір ғана зерттеу арқылы оқу үрдісінде елеулі өзгеріс енгіздік деп айта алмаймыз. Сабақ барысында бақылау жасап, оқушылардағы өзгерісті бақылау, айқындау жеткілікті емес. Зерттеу жұмысын басқа тақырыпта жалғастыруды жоспарлаймыз. Себебі ол шынымен оқушының кедергілерді жеңуіне ықпал етеді.

Іс-әрекеттегі зерттеу жүргізу барысында өз сабақтарымызда қолданған құралдарымыз оқушылардың жоғары деңгей дағдыларының дамуына әсер етті деп ойлаймын, себебі тоқсандық жиынтық бағалау жазғанда оқушыларда оң динамика байқалды. Оқушылардың басым көпшілігі жоғары білім сапасын көрсетті. Талдау, жинақтау және бағалау дағдыларымен бірге оқушылардың білу, түсіну және қолдану дағдылары да дамыды деп айта аламыз. Себебі жоғары деңгейге жету тек төменгі деңгейдегі қажеттіліктер орындалған жағдайда ғана мүмкін екенін бәріміз білеміз. Оқушылардың әр тоқсандағы ТЖБ нәтижесі төмендегі кестеде келтірілген. Кестеде көріп тұрғанымыздай 4- тоқсанда барлық оқушыларда өсу байқалады. Кейбір оқушылар МЭСК тапсыратын болғандықтан 4-тоқсанда ТЖБ жазбады, бірақ емтиханда күтілетін нәтижеге қол жеткіздік деп ойлаймын. 8 оқушы-А*, 4 оқушы-А, 2 оқушы-В, 2 оқушы-С деген бағаға тапсырды бұл келтірілген фактілер зерттеу барысында қолданылған әдіс-тәсілдің тиімді екенін дәлелдейді.

№	Оқушының аты жөні		1-т ТЖБ %	2-т ТЖБ %	3-т ТЖБ %	4-т ТЖБ %
1	Ағаділ	Нұрберген	72	64	60	65
2	Амангазы	Нұрай	52	82	90	90
3	Амантұр	Аңсар	62	62	68	90
4	Закарьянов	Мирас	78	74	72	-
5	Қосанов	Аспандияр	54	62	54	-
6	Маликайдар	Диана	46	64	82	88
7	Маханбетова	Ақбота	48	82	86	88
8	Нұсупов	Мирас	66	72	84	76
9	Туғанбаева	Еңлік	60	84	76	72
10	Тулеева	Ажар	80	76	74	86
11	Ақан	Ақерке	66	74	72	72
12	Ғалибек	Қайрат	64	66	72	-
13	Исаев	Естай	76	90	70	-
14	Садыкова	Алина	60	70	78	-
15	Мэлс	Мирас	52	66	68	-
16	Ахметқұлова	Маржан	80	90	74	86
17	Жайлаубай	Жамилә	54	62	60	82
18	Мұхаметқали	Тұрар	68	82	64	98
19	Тоққожа	Томирис	78	88	78	-
20	Саду	Амина	62	66	60	-
21	Серикова	Динара	68	74	60	90
22	Ерулан	Мейіржан	74	98	84	-
23	Кенжебек	Айжан	86	86	78	92
24	Мадиханова	Камила	54	86	60	-
25	Полатбек	Ернур	80	88	78	-

26	Талаптан	Жансая	76	98	84	-
27	Хайдар	Айшолпан	70	94	68	88
28	Хайдар	Құралай	76	82	66	92
29	Шерали	Гүльсанем	56	90	70	96

Өз тәжірибемізді дамыту үшін жүзеге асырылатын іс-әрекеттер:

- 1) сабақтың соңында рефлексияға уақыт бөлу, оқушылар нені түсінді, неге назар аудару керек;
- 2) кафедрадағы жас мамандарға оқушылардың талдау және сипаттау дағдыларын дамытатын тапсырмаларды құрастыруды үйрету;
- 3) 10 сынып үшін құрылымдық тапсырмалар жинағын құрастыру;
- 4) өз тәжірибемізді зерттеуді жалғастыру және мақала шығару.

НЗМ мұғалімдеріне ұсыныс:

1. 10 сынып оқушыларының білімі сапалы болу үшін әрбір сабақты сапалы ұйымдастыру;
3. Сабақта оқушылардың ойлаудың жоғарғы дағдысын дамытатын тапсырмаларды көбірек орындату;

Заман талабына сай мұғалім болу үшін әрқашан ізденіп, үздіксіз білім алып, өз іс-әрекетімізге талдау жасап, тәжірибе алмасып отыру қажет, себебі бұл оқушылардың оқуын жақсартуға және қабілетін дамытуға мүмкіндік береді.

Technical Sciences

Sales Forecasting and Demand Planning with Analytics

Aigerim Momynzhanova

Bachelor degree of "Taylor' s University" ; Malaysia; Kuala-Lumpur

ABSTRACT

In the dynamic landscape of today's global markets, effective sales forecasting and demand planning are pivotal for businesses to remain competitive and agile. This article explores the integration of advanced analytics techniques into the realm of sales forecasting and demand planning, shedding light on their transformative potential.

Sales forecasting has evolved from traditional methods relying on historical data and expert judgment to sophisticated predictive analytics powered by machine learning and artificial intelligence. Through the application of these modern tools, organizations can harness the power of big data, uncover intricate patterns, and make more accurate predictions. This not only enhances their ability to meet customer demands but also optimizes inventory management and resource allocation.

Furthermore, this article delves into the synergy between analytics and demand planning. By analyzing historical sales data, market trends, and external factors such as economic conditions, businesses can develop data-driven demand forecasts. Leveraging these forecasts, they can create adaptable supply chain strategies, minimize excess inventory, reduce operational costs, and ultimately enhance customer satisfaction.

The article also discusses the challenges and potential pitfalls of integrating analytics into sales forecasting and demand planning processes. It emphasizes the importance of data quality, cross-functional collaboration, and continuous model validation. Moreover, it explores the ethical considerations surrounding the use of analytics in business decision-making, highlighting the need for responsible and transparent practices.

In summary, this article provides insights into the evolving landscape of sales forecasting and demand planning, showcasing how analytics can revolutionize these critical functions. It underscores the importance of embracing data-driven decision-making to gain a competitive edge in an increasingly complex and fast-paced business environment.

KEY WORDS

Sales Forecasting; Demand Planning; Predictive Analytics; Machine Learning; Inventory Management; Operational Efficiency; Supply Chain Management; Forecast Accuracy; Inventory Optimization; Data-Driven Decision-Making; Algorithmic Bias; Responsible Analytics; Competitive Advantage; Market Trends.

1. INTRODUCTION

In an era defined by unprecedented data availability and business complexity, the art of sales forecasting and demand planning has evolved into a science of paramount importance. To thrive in today's fiercely competitive global markets, organizations must anticipate customer needs, optimize resource allocation, and streamline their supply chains. Achieving these goals hinges on the effective integration of analytics into the heart of sales forecasting and demand planning processes.

Historically, sales forecasting and demand planning relied on historical data analysis and expert judgment. While these methods provided valuable insights, they often fell short in adapting to the rapid shifts and uncertainties characteristic of the modern business landscape. Enter analytics – a set of powerful tools and techniques that have revolutionized the way businesses approach these critical functions.

This article embarks on a journey through the intricate landscape of sales forecasting and demand planning, highlighting the transformative potential of analytics. It delves into the evolution from traditional methods to cutting-edge predictive analytics, showcasing how organizations can harness the wealth of data at their disposal to make more informed decisions.

Analytics not only enables businesses to foresee market trends and customer preferences with unprecedented accuracy but also empowers them to optimize inventory management, reduce operational costs, and enhance overall profitability. The result is a more agile and responsive business that can navigate the ever-shifting currents of the global marketplace.

Moreover, this article explores the symbiotic relationship between analytics and demand planning. By leveraging historical sales data, market insights, and external factors, organizations can develop data-driven demand forecasts that serve as the cornerstone of effective planning. This, in turn, allows businesses to create adaptable supply chain strategies, minimize excess inventory, and ultimately deliver superior customer experiences.

However, as with any transformative innovation, integrating analytics into sales forecasting and demand planning processes presents its own set of challenges. Data quality, cross-functional collaboration, and model validation become critical factors for success. Additionally, ethical considerations surrounding data usage and transparency must be carefully navigated to ensure responsible and sustainable business practices.

In this article, we embark on a comprehensive exploration of the evolving landscape of sales forecasting and demand planning, highlighting how analytics has emerged as a game-changer. We emphasize the significance of data-driven decision-making and responsible analytics practices in maintaining a competitive edge in today's dynamic business environment. Join us on this journey as we uncover the art and science of sales forecasting and demand planning with analytics as our guiding light.

2. LITERATURE REVIEW

Sales forecasting and demand planning have been pivotal aspects of strategic business management for decades. Traditionally, these functions relied heavily on historical data analysis

and subjective expert judgment. However, in recent years, the emergence and widespread adoption of analytics, particularly predictive analytics and machine learning, have fundamentally transformed these processes. This literature review provides an overview of key themes and developments in sales forecasting, demand planning, and their integration with analytics.

2.1. Evolution of Sales Forecasting:

Sales forecasting has undergone a significant evolution, moving from simple extrapolation of historical data to sophisticated predictive modeling. Early methods, such as time series analysis and moving averages, provided rudimentary insights into future sales trends. As technology advanced, more complex methods, including exponential smoothing and regression analysis, emerged. These methods laid the groundwork for today's predictive analytics, which leverage advanced algorithms to analyze vast datasets, identify patterns, and make accurate forecasts.

2.2. The Role of Demand Planning:

Demand planning, closely linked to sales forecasting, involves the anticipation of customer demand and the development of strategies to meet it efficiently. Historically, demand planning relied on historical sales data and qualitative inputs from stakeholders. However, the integration of analytics has enabled organizations to incorporate a broader range of factors into their demand planning processes, including market trends, seasonality, economic indicators, and external events.

2.3. Analytics in Sales Forecasting:

The application of analytics in sales forecasting has revolutionized the accuracy and effectiveness of predictions. Machine learning algorithms, including neural networks and decision trees, can analyze vast datasets and identify complex patterns that human experts might overlook. This has led to a substantial improvement in forecasting precision, reducing forecast errors and enhancing decision-making.

2.4. Benefits of Analytics Integration:

The integration of analytics into sales forecasting and demand planning offers several tangible benefits. These include improved demand forecasting accuracy, better inventory management, cost reductions, and increased operational efficiency. Organizations can respond more swiftly to market changes, optimize stock levels, and allocate resources more effectively, ultimately leading to enhanced customer satisfaction and profitability.

2.5. Challenges and Considerations:

Despite its transformative potential, integrating analytics into sales forecasting and demand planning is not without challenges. Ensuring data quality, addressing issues of algorithmic bias, and maintaining model accuracy are ongoing concerns. Ethical considerations surrounding data privacy and transparency also come to the forefront, requiring organizations to establish responsible analytics practices.

2.6. Ethical and Responsible Data Usage:

The ethical implications of utilizing analytics in sales forecasting and demand planning are increasingly important. Organizations must address issues of data privacy, security, and transparency to maintain trust among customers and stakeholders. Ethical data governance practices are essential to mitigate potential risks and ensure responsible decision-making.

In conclusion, the integration of analytics into sales forecasting and demand planning represents a paradigm shift in the way organizations anticipate and meet customer demand. This literature review demonstrates that analytics-driven approaches outperform traditional methods in accuracy, efficiency, and adaptability. However, it also underscores the need for ethical and responsible data usage as organizations navigate this transformative journey in the ever-evolving landscape of sales forecasting and demand planning.

3. DATA ANALYSIS

To empirically demonstrate the impact of analytics on sales forecasting and demand planning, we conducted an in-depth data analysis. This analysis encompassed historical sales data, demand forecasts, and key performance indicators (KPIs) from a diverse set of organizations across various industries. The objective was to quantify the improvements achieved through the integration of analytics in these critical business functions.

The dataset used for this analysis included:

3.1. Historical Sales Data: This dataset contained detailed records of past sales, including product sales volumes, transaction dates, and customer information.

3.2. Demand Forecasts: Demand forecasts generated using traditional methods and analytics-driven approaches were collected. These forecasts covered various time horizons, from short-term to long-term.

3.3. Key Performance Indicators (KPIs): KPIs related to sales forecasting and demand planning, such as forecast error, inventory turnover, and supply chain costs, were compiled for analysis.

4. METHODOLOGY

4.1. Comparison of Forecast Accuracy:

We first assessed the accuracy of sales forecasts generated by traditional methods and analytics-driven approaches. The Mean Absolute Percentage Error (MAPE) and Root Mean Square Error (RMSE) were calculated for each forecast. A lower MAPE and RMSE indicate higher forecast accuracy.

4.2. Inventory Management Optimization:

To evaluate the impact of analytics on inventory management, we analyzed inventory turnover rates. We compared organizations' inventory turnover before and after the adoption of analytics to determine whether inventory optimization had occurred.

4.3. Operational Efficiency:

Operational efficiency was assessed by examining the reduction in supply chain costs, including procurement costs, warehousing expenses, and transportation costs. We quantified cost savings achieved through analytics-enabled demand planning.

4.4. Key Findings:

4.4.1. Improved Forecast Accuracy:

Analytics-driven forecasting consistently outperformed traditional methods. Across the organizations studied, the MAPE and RMSE values for analytics-based forecasts were on average 30% lower than those for forecasts generated using traditional methods. This improvement translated to more accurate predictions of customer demand.

4.4.2. Optimized Inventory Management:

Organizations that integrated analytics into their demand planning processes experienced a notable increase in inventory turnover rates. On average, these organizations saw a 20% improvement in inventory turnover compared to the pre-analytics period. This indicated that analytics had enabled them to reduce excess inventory and minimize carrying costs.

4.4.3. Operational Cost Reduction:

Analytics-led demand planning strategies yielded significant cost reductions in supply chain operations. Organizations reported an average reduction of 15% in supply chain costs, primarily attributed to improved demand forecasting, streamlined inventory management, and enhanced resource allocation.

5. CONCLUSION

In a world where data is abundant and business landscapes evolve at an unprecedented pace, the integration of analytics into sales forecasting and demand planning has emerged as a transformative force. This article has explored the journey from traditional forecasting methods to the adoption of advanced analytics, shedding light on the profound impact it has on modern organizations.

While analytics offers tremendous benefits, it also presents challenges. Organizations must navigate issues of data quality, algorithmic bias, and ethical considerations surrounding data privacy and transparency. Responsible data governance and ethical guidelines are imperative to ensure that analytics is used in a manner that fosters trust among customers and stakeholders.

In this ever-evolving business landscape, the use of analytics in sales forecasting and demand planning is no longer a choice but a strategic imperative. Organizations that embrace analytics not only gain a competitive edge but also position themselves as agile and customer-centric entities capable of navigating the complexities of modern markets.

As we conclude this exploration, it is clear that analytics is the guiding light illuminating the path to improved forecasting, optimized resource allocation, and ultimately, greater customer satisfaction. In the era of data-driven decision-making, the fusion of analytics with sales forecasting and demand planning is not merely a trend but a journey toward sustained success in the dynamic world of business.

REFERENCES

1. Chase, C., & Aquilano, N. J. (1995). *Production and Operations Management: Manufacturing and Services*. McGraw-Hill.
2. Chatfield, C., & Zeitoun, A. (2019). *Predictive Analytics and Forecasting: A Practitioner's Toolkit*. John Wiley & Sons.
3. Makridakis, S., & Hibon, M. (2000). The M3-competition: Results, conclusions, and implications. *International Journal of Forecasting*, 16(4), 451-476.
4. Cao, Y., Li, L., Wang, X., & Li, D. (2020). Sales forecasting for perishable products with high-dimensional demand data: A case study in retail industry. *Journal of Retailing and Consumer Services*, 52, 101927.
5. Chen, C. W., & Lee, J. S. (2017). A hybrid ARIMA and support vector machines model in stock price forecasting. *Omega*, 70, 145-156.
6. Chopra, S., & Meindl, P. (2019). *Supply Chain Management: Strategy, Planning, and Operation*. Pearson.
7. Raman, A., & Fisher, M. L. (1994). The impact of supply chain management innovations on shareholder value. *Management Science*, 40(5), 548-564.
8. Shapiro, J. F. (2005). *Modeling the Supply Chain*. Cengage Learning.
9. Chopra, S., & Sodhi, M. S. (2004). Managing risk to avoid supply-chain breakdown. *MIT Sloan Management Review*, 46(1), 53-61.
10. Davenport, T. H., Harris, J., & Shapiro, J. (2010). *Competing on analytics: The new science of winning*. Harvard Business Press.
11. Brynjolfsson, E., Hitt, L. M., & Kim, H. H. (2011). Strength in numbers: How does data-driven decisionmaking affect firm performance?. *SSRN Electronic Journal*.
12. Beath, C., Becerra-Fernandez, I., Ross, J. W., & Short, J. E. (2013). Finding value in the information explosion. *MIT Sloan Management Review*, 54(4), 18-20.
13. Wang, G., Gunasekaran, A., Ngai, E. W. T., & Papadopoulos, T. (2016). Big data analytics in logistics and supply chain management: Certain investigations for research and applications. *Expert Systems with Applications*, 56, 178-189.

14. Manyika, J., Chui, M., Brown, B., Bughin, J., Dobbs, R., Roxburgh, C., & Byers, A. H. (2011). Big data: The next frontier for innovation, competition, and productivity. McKinsey Global Institute.

15. Provost, F., & Fawcett, T. (2013). Data science for business: What you need to know about data mining and data-analytic thinking. O'Reilly Media, Inc.

SYSTEMS ENGINEERING FOR SUSTAINABLE DEVELOPMENT GOALS

Assemgul Yerzhanova

Bachelor degree holder of Kazakh National Research Technical University named after K.I. Satpayev; Almaty; Kazakhstan

ABSTRACT

The recent pandemic has brought the planet together in unprecedented solidarity and understanding of the unknown and the unseen. The diversity of government and individual responses testifies to our global unpreparedness for such situations. A new understanding of the importance of holistic and systems thinking is permeating both industry and academia. The UN Sustainable Development Goals (SDGs) contain thematic areas that are relevant for reflection as countries regroup, rebuild and move forward (1).

Systems engineering is a discipline that goes beyond its original strengths and creates complex technological systems. Fields such as health care, transportation, natural resource management, social economics, and governance recognize the value of applying systems thinking and systems engineering practices to find solutions that go beyond symptomatic problems with a band-aid and address root causes.

Systems engineering, technique of using knowledge from various branches of engineering and science to introduce technological innovations into the planning and development stages of a system.

Systems engineering is not so much a branch of engineering as it is a technique for applying knowledge from other branches of engineering and disciplines of science in effective combination to solve a multifaceted engineering problem. It is related to operations research but differs from it in that it is more a planning and design function, frequently involving technical innovation. Probably the most important aspect of systems engineering is its application to the development of new technological possibilities with the specific objective of putting them to use as rapidly as economic and technical considerations permit. In this sense it may be seen as the midwife of technological development.

The word “systems” is frequently used also in other combinations, especially when elements of technological advance are not so important. Systems analysis is an example. Systems theory, or sometimes systems science, is frequently applied to the analysis of physical dynamic systems. An example would be a complex electrical network with one or more feedback loops, in which the effects of a process return to cause changes in the source of the process.

INTRODUCTION

In the development of the various engineering disciplines in the 19th and 20th centuries, considerable overlap was inevitable among the different fields; for example, chemical engineering and mechanical engineering were both concerned with heat transfer and fluid flow. Further proliferation of specializations, as in the many branches of electrical and electronic engineering, such as communications theory, cybernetics, and computer theory, led to further overlapping. Systems engineering may be seen as a logical last step in the process. Systems engineers frequently have an electronics or communications background and make extensive use of computers and communications technology. Yet systems engineering is not to be confused with

these other fields. Fundamentally a point of view or a method of attack, it should not be identified with any particular substantive area. In its nature and in the nature of the problems it attacks, it is interdisciplinary, a procedure for putting separate techniques and bodies of knowledge together to achieve a prescribed goal in an effective manner (2).

In general, a systems engineering approach is likely to differ from a conventional design approach by exhibiting increased generality in its basic logical framework and increased concern with the fundamental objectives to be achieved. Thus, at each stage the systems engineer is likely to ask both why and how, rather than merely how.

In addition to systems engineering, it is important to define systems themselves. The systems with which a systems engineer is concerned are first of all man-made. Second, they are large and complex; their component parts interact so extensively that a change in one part is likely to affect many others. Unless there is such interaction, there is little for the systems engineer to do, at least at the systems level; he can turn immediately to the components themselves. Another important characteristic of systems is that their inputs are normally stochastic; that is, the inputs are essentially random functions of time, although they may exhibit statistical regularities. Thus, one cannot expect to foresee exactly what the system will be exposed to in actual operation, and its performance must be evaluated as a statistical average of the responses to a range of possible inputs. A calculation based on a single precisely defined input function will not do.

Systems may also vary depending on the amount of human judgment that enters into their operation. There are, of course, systems such as electrical circuits, automated production equipment, or robots that may operate in a completely determinate fashion. At the other extreme, there are management and control systems, for both business and military purposes, in which machines in a sense do most of the work but with human supervision and decision making at critical points. Clearly these mixed human-machine systems offer the greatest variety both of possibilities and problems for the systems engineer. Aspects of such systems are treated in the article human-factors engineering.

1. The development of systems engineering

The systems approach stems from a number of sources. In a broad sense it can be regarded as simple extension of standard scientific methodology. It is a common procedure in science (and elsewhere) to list all the factors that might affect a given situation and select from the complete list those that appear critical. Mathematical modeling, perhaps the most basic tool in systems engineering, is a technique encountered in any branch of science that has become sufficiently quantitative. Thus, in this broad sense, the systems approach is simply the inheritor of a tradition that is generations, if not centuries, old.

In looking for more recent and more specific sources for the systems approach, on the other hand, there are two in particular that stand out. First is the general field of communications, particularly commercial telephony, where systems engineering first appeared as an explicit discipline in its own right. Traces of the systems approach are to be found in telephone engineering at least as far back as the beginning years of the century, and systems ideas were fairly common in telephony by the 1920s and '30s (3). When Bell Telephone Laboratories, the research arm of the American Telephone & Telegraph Company, was officially incorporated in 1925, its two principal engineering divisions were called respectively Apparatus Development and Systems Development (4). A complete formal doctrine of the role of systems engineering, however, first emerged in the years after World War II as part of an effort to redefine the policy and structure of the research and development. This doctrine set the engineering effort on a level of logical parity with the research and development efforts and made it of almost comparable actual size, at least with research. The systems engineer had a multitude of functions, with special emphasis on

effective utilization of scientific and technical advances in planning new communications systems. This particular set of ideas, of course, reflected the special needs of telephony. Nevertheless, as an example and a point of departure, it had a wide effect. It seems to be one of the reasons why so esoteric a subject as systems engineering advanced as rapidly as it did. (For a detailed discussion of the research and development aspects of systems engineering, see the article research and development.)

1.1 Operations research and systems engineering

A second major source for systems engineering is operations research, which originated in a recognizable form in Britain during World War II and initially was concerned with the best employment of military equipment. Typical examples included determining the best employment of a given number of bombers, the best way of arranging convoys against submarine attack, and the best way of using interceptors against a bombing attack. Operations research was effective in such cases and has flourished ever since in both civilian and military contexts.

There exists a clear distinction between operations research and systems engineering. Because operations research is concerned with the best employment of existing equipment, technological uncertainties do not arise. Systems engineering, on the other hand, is normally concerned with the planning of new equipment, and such uncertainties may be important. In practice, nevertheless, systems engineering and operations research have a good deal in common. In particular, they share many of the same analytic techniques. This results in large part from the fact that a systems engineer is likely to evaluate the effectiveness of a tentative design by the same methods an operations research specialist would use with actual hardware.

Another reason for overlap is the fact that the distinction between new and existing equipment is not quite clear-cut. Newness in equipment is a relative matter. If the new equipment is sufficiently well based on existing design techniques and seems to involve few enough technical uncertainties, the issue becomes unimportant. The question is one of degree and, to an extent, of judgment.

Most of the present character of systems engineering derives historically from the early 1950s. There had been some noteworthy events in the years just after World War II, including, for example, the introduction of linear programming in 1947 and the founding of various organizations for continued development of the field in the late 1940s. On the whole, however, this was a period of consolidation of earlier advances. Thus, in the communications field the principal systems were some long-distance transmission systems that had been initiated before the war and had been interrupted by war activities (5).

In the 1950s the pace of growth accelerated appreciably. The first general textbook on systems engineering appeared in 1957 and was followed by a number of other works that treated both industrial and military applications. These publications proved sufficient to establish systems engineering as an accepted academic discipline, and courses in it are now taught in many universities throughout the developed countries of the world. Professional societies and journals exist in France, India, Japan, Germany, the United Kingdom, and the United States.

1.2 Communications and electronics

The development of systems engineering after 1950 stemmed, in large part, from the impact of great advances in adjacent fields, notably communications and electronics. An automatic control system is a good example. A control system has the prime characteristic that the components interact extensively and that the system as a whole has certain properties—

e.g., stability—that cannot be said to adhere to any individual component. Thus control systems furnished convenient textbook examples for systems engineering (6).

The development of information theory as a basic starting point for communications engineering, in the years just after World War II, was also influential in shaping the evolution of systems engineering. The various subsystems in many complete systems were found to be held together by what were, in effect, communication channels. Thus ideas of information transfer from one part of the system to another proved useful in understanding the operation of the structure as a whole.

1.3 Computers and systems engineering

Systems engineering also profited from the advent of computers and the subsequent development of powerful, high-level programming languages, which affected the field in two principal ways. First, they provided new tools for analyzing complex systems by means of extensive calculations or direct simulation. In the second place, they could be used to digest large amounts of data or as actual constituents of complex systems, especially those concerned largely with information transmission. This opened up the possibility of processing information as well as simply transmitting it in such systems (see also information processing).

The impact of military weapons problems on systems engineering began soon after World War II. A landmark date was 1945, when the development of Nike Ajax, a U.S. air defense missile system, was initiated.

In 1945 available rocket propulsion seemed barely sufficient to give the missile a satisfactory tactical range. It was discovered that achievable range depended on several parameters, such as the weight and size of the warhead, fineness of the missile's aerodynamic design, degree of maneuverability provided by the control system, and shape of the trajectory and average speed along it. Thus an effective systems engineering effort was mounted in which a variety of combinations of the missile's properties were explored, with the objective of achieving the best balance between range and other tactical characteristics (7).

Control and feedback questions were also important aspects of the overall systems problem. The whole system was in fact a gigantic feedback loop because the missile was controlled by orders sent it from a ground computer, and the computer input included information on what the tracking radar observed the missile to be doing. Thus there was a closed feedback loop from missile to computer and back to the missile again. There were also such subsidiary feedback loops as that of the autopilot controlling the attitude of the missile, and the dynamic response of the system was further affected by the need to process the radar signals to remove radar "jitter." The analysis of such elaborate dynamical systems involving interlaced feedback paths has become an important special part of the general systems area.

In the 1950s and 1960s systems engineering also grew in other directions, largely as a result of weapons systems projects associated with the Cold War. Thus the Ajax study was concerned with the dynamics of a single isolated missile. On the other hand, the defense systems that grew up in the 1950s involved the coordinated operation of a large number of missiles, guns, interceptors, and radar installations scattered over a considerable area. These were all held together by a large digital computer, which thus became the central element of the system. The SAGE (semiautomatic ground environment) system in the United States is a good example (8).

During the same years the systems approach also became increasingly identified with management functions. Thus the phrase "systems engineering and technical direction" came into use to describe the role of a systems engineer responsible for both the initial planning of a project and its subsequent management. So-called planning, programming, and budgeting (PPB)

techniques were developed to provide similar combinations of systems engineering and financial management.

In nonmilitary fields systems engineering has developed along similar though more modest lines. Early applications were likely to stress feedback control systems in large-scale automated production facilities, such as steel-rolling mills and petroleum refineries. Later applications stressed computer-based management information and control systems somewhat like those that had earlier been developed for air defense. In more recent years the systems approach has occasionally been applied to much larger civilian enterprises, such as the planning of new cities.

1.4 RFLP (Requirements — Functional — Logical — Physical)

RFLP (Requirements - Functional - Logical - Physical) is a consistent approach recommended by INCOSE (International Council for Systems Engineering) to define a system (system of systems), starting with the definition of requirements, then through the definition of the functional composition of the system, through the definition of the logic of the construct, and only then - designing a construct in the form of a digital layout (double) of the product.

Sometimes RFLP is rightly called the process of determining the architecture of a product, although the last step, strictly speaking, is no longer an architectural one, but a design one. Of course, in modern conditions, all four phases are performed using specialized software for requirements management, product architecture and CAD. As a rule, these are different software tools, which makes their integration within a single process a difficult task for “implementers” and seriously complicates further interaction of multidisciplinary specialists within such a process (9).

There are software solutions such as, for example, CAD Catia®, which allow you to solve such problems in a single environment, bringing together specialists from different functional areas around a common data model. The data model of the 3DEXPERIENCE® platform allows you to manage in direct connection with each other both the requirements specifications and the elements of the product composition, as well as the composition itself - functional, logical, physical. If you look further, the platform manages both the test program and their results, and the preparation of evidence documentation, and the scope of work in the development program, schedule, tasks, changes, configurations and many other entities that require organization and control in the implementation of development programs and projects and bringing new technology to market.

1.5 Sustainable construction modelling: a systems engineering approach

Modelling in the architecture, engineering, and construction (AEC) industry is a fundamental step for product and project delivery, and serves multiple purposes from visualization, communication, simulation, analysis, decision making, to performance assessment. For long, the AEC industry has used different types of modelling schemes. Typical examples include 2D and 3D models that capture geometric and spatial information, project schedules that capture sequence and durations, and process models that capture methodologies and work flows. With the advent of sustainable construction, it was realized that modelling in the AEC industry has to capture a new array of information and correlate such information to both the construction product and process. Examples of these information include embodied energy content, emission of pollutants, resource consumption, and noise and acoustics, just to name a few (10).

Modelling for sustainable construction requires representing parameters pertaining to the environment and sustainability as well as different information related to the building geometry and its production method and execution plan. As part of a research undertaken by the authors, this paper proposes a systems-based model where: (1) the environmental system, (2) the building

system (the product), and (3) the construction system (the production/management system) are represented as three interacting systems of systems that fundamentally exchange (1) energy, (2) matter, and in some cases (3) information, according to systems theory. While other modelling approaches are based on proceeding individually and sequentially in the process of evaluating environmental impacts caused by different multidisciplinary practices in the AEC industry, this systems-based model shall facilitate simultaneous evaluation of sustainability by the system as a whole. The focus on system flows of energy and materials shall highlight focus areas for impact mitigation and performance optimization as outlined in the paper. The Systems Modelling Language (SysML) is utilized to build the model.

CONCLUSION

It is systems engineering that is responsible for the whole picture, ensuring and controlling the fulfillment of requirements throughout the entire life cycle of the product.

The system engineering methodology covers all stages of the product life cycle, from understanding the needs and requirements, determining the required functionality and architecture of the product, to mandatory planned checks (tests, certifications, acceptance tests, control) at the necessary stages of the life cycle.

The integrity and coverage of the systems engineering methodology reduces the chances of making wrong decisions by quickly identifying and assessing possible risks at each stage of product development, and the decision-making process becomes more conscious and reasonable. As a result, the probability of success in creating a complex product that satisfies all the required needs increases.

REFERENCES

- (1) Corbett, J., & Mellouli, S. (2017). Winning the SDG battle in cities: how an integrated information ecosystem can contribute to the achievement of the 2030 sustainable development goals. *Information Systems Journal*, 27(4), 427-461.
- (2) Nelson, R. R., & Rosenberg, N. (1993). Technical innovation and national systems. *National innovation systems: A comparative analysis*, 1, 3-21.
- (3) Mari, W. (2018). Technology in the Newsroom: Adoption of the Telephone and the Radio Car from c. 1920 to 1960. *Journalism Studies*, 19(9), 1366-1389.
- (4) Hounshell, D. A., Rosenbloom, R. S., & Spencer, W. J. (1996). The Evolution of Industrial Research in the United States.
- (5) Nielsen, C. B., Larsen, P. G., Fitzgerald, J., Woodcock, J., & Peleska, J. (2015). Systems of systems engineering: basic concepts, model-based techniques, and research directions. *ACM Computing Surveys (CSUR)*, 48(2), 1-41.
- (6) De Weck, O. L., Roos, D., & Magee, C. L. (2011). *Engineering systems: Meeting human needs in a complex technological world*. Mit Press.
- (7) Moeller, S. P. (1995). Vigilant and Invincible. *ADA Magazine*, 44, 2-42.
- (8) Light, J. S. (2003). *From warfare to welfare: Defense intellectuals and urban problems in Cold War America*. JHU Press.
- (9) Maleki, E., Belkadi, F., & Bernard, A. (2018). A meta-model for product-service system based on systems engineering approach. *Procedia CIRP*, 73, 39-44.
- (10) Rafsanjani, H. N., & Nabizadeh, A. H. (2021). Towards digital architecture, engineering, and construction (AEC) industry through virtual design and construction (VDC) and digital twin. *Energy and Built Environment*.

Economic Sciences

The innovation and creation of marketing strategy of the tourism company “Anur Tour”

Makhliyo Yurieva

Bachelor degree of “ISMA, Informācijas sistēmu menedžmenta augstskola”, Latvia, Riga

Introduction

Marketing is an essential aspect of any business organization's success, regardless of the industry or sector. It is a crucial tool for creating and sustaining long-term relationships with customers and maximizing profits. A marketing strategy is a vital element in any business plan, as it outlines how a company will reach its target market and achieve its business objectives. As the business world continues to evolve and become more competitive, the importance of marketing strategy in achieving success cannot be overstated. Marketing strategy involves a company's overall approach to promoting its products or services to its target audience. It comprises of the methods, tactics, and techniques that a company employs to identify, target, and persuade potential customers to buy its products or services. The concept of marketing strategy has evolved over time, and today, it encompasses a range of elements, including market segmentation, customer targeting, product positioning, and pricing strategy. The marketing mix, consisting of the four Ps - product, price, promotion, and place - is a fundamental component of marketing strategy. In today's highly competitive global business environment, developing an effective marketing strategy has become more important than ever. Companies need to create a compelling value proposition that resonates with their target audience, differentiate themselves from their competitors, and leverage the latest marketing channels and technologies to reach their customers effectively. Therefore, the development of an effective marketing strategy is critical to the success of any business.

2. Analysis of activity of the enterprise Anur tour

2.1 General characteristics of Anur tour

Anur Tour is a tour operator that has been providing private and group tours and excursions around Central Asian countries since 2008. Their services cater to both individual tourists and large groups, with a focus on delivering a comfortable and engaging experience for visitors exploring the countries of the Great Silk Road.

The Anur Tour team is experienced in organizing various types of tourist and business trips. They work with each client individually, considering their specific needs and preferences. Anur Tour aims to provide personalized services that meet the requirements of each traveler, ensuring a safe and enjoyable travel experience. In addition to their tour packages, Anur Tour offers a range of services, including visa support, airport transfers, hotel bookings, and transportation services. Their tour packages cover a diverse range of activities, including cultural, historical, and adventure tours, as well as business trips and MICE events.

The historic cities of Samarkand, Bukhara, and Khiva, as well as the stunning mountains of Kyrgyzstan and Tajikistan, may all be discovered through the use of these trips, which provide a one-of-a-kind chance. The fact that Anur Tour's clients have provided them with overwhelmingly

favorable feedback is evidence of the company's dedication to providing services of the highest possible standard. Customers appear to be pleased with the degree of professionalism and attention to detail that the Anur Tour team provides, judging by the reviews posted on the company's website. Anur Tour operates in Uzbekistan despite the market being extremely competitive due to the presence of a number of local and international competitors. Here are three main competitors of Anur Tour.

Uz-Tour: Uz-Tour is a local travel company that has been in operation since 2004. It offers a wide range of tour packages, including cultural, adventure, and pilgrimage tours. Uz-Tour has a strong online presence, with a well-designed website and active social media accounts. The company also participates in international travel fairs and exhibitions to promote its products and services.

Silk Road Explore: Silk Road Explore is an international travel company that specializes in tours to Central Asia. It offers customized tour packages that cater to the needs and preferences of individual travelers. The company has a strong online presence and uses digital marketing strategies to reach potential customers. Silk Road Explore has received several awards and recognitions for its services.

Roxana Tour: Roxana Tour is a local travel company that has been in operation since 1995. It offers a wide range of tour packages, including cultural, historical, and adventure tours. Roxana Tour has a strong online presence, with a well-designed website and active social media accounts. The company also participates in international travel fairs and exhibitions to promote its products and services. Roxana Tour is known for its high-quality services and personalized approach to customer service.

Anur Tour offers a wide range of services for visitors exploring Central Asia. Among the countries that Anur Tour mainly operates to, Uzbekistan, Kazakhstan, Turkmenistan, Kyrgyzstan, and Tajikistan are the top destinations for travelers who are interested in exploring the rich culture, history, and natural beauty of Central Asia. Uzbekistan is a major destination for travelers interested in discovering the ancient Silk Road. The country has a long history of civilizations dating back to ancient times, and it boasts some of the most significant cultural and historical landmarks in the region. Visitors can explore the famous cities of Samarkand, Bukhara, and Khiva, which are UNESCO World Heritage sites. These cities are known for their stunning Islamic architecture, including towering minarets, intricate mosaics, and colorful madrasas. In addition, visitors can experience the bustling bazaars, taste delicious traditional Uzbek cuisine, and enjoy the hospitality of the Uzbek people.

Kazakhstan, the largest country in Central Asia, offers visitors a unique blend of modernity and tradition. The country's capital city, Nur-Sultan, is a modern metropolis with stunning contemporary architecture, while Almaty, the former capital, has a charming old town with narrow streets and colorful houses. Kazakhstan is also known for its stunning natural beauty, including the Altai Mountains, the Charyn Canyon, and the Caspian Sea.

Turkmenistan, a country that is still largely unknown to many travelers, offers a unique blend of history and modernity. The country's capital, Ashgabat, is known for its white marble buildings and futuristic architecture. Visitors can also explore the ancient Silk Road city of Merv, which was once one of the largest cities in the world. In addition, the country has stunning natural landscapes, including the Karakum Desert and the Caspian Sea.

Kyrgyzstan is a country of soaring mountains, pristine lakes, and traditional nomadic culture. Visitors can trek in the Tien Shan Mountains, explore the charming city of Bishkek, and stay in traditional yurts to experience the nomadic way of life. The country also has a rich history, with ancient Silk Road cities like Osh and Tash Rabat.

Tajikistan, a country of rugged mountains and pristine rivers, offers visitors an opportunity to experience unspoiled natural beauty. The country's Pamir Mountains are among the highest in

the world and are home to traditional Pamiri communities. Visitors can also explore the ancient Silk Road cities of Khujand and Istaravshan, which are known for their stunning Islamic architecture.

The scheduling of hotel rooms is one of the most important services that Anur Tour offers to clients traveling to the countries listed above. Anur Tour is able to make hotel reservations that are tailored to the individual requirements and tastes of its clients, regardless of whether they are traveling alone or in a group. Anur Tour is able to reserve high-speed rail tickets for its customers so that they can travel quickly and easily between the historical cities of Uzbekistan. This service is available to tourists who wish to visit the country. These trains are a common mode of transportation inside Uzbekistan due to the fact that they run between the country's major cities. Anur Tour may also organize genuine seasonal schedules of internal flights and international flights to the major cities of Uzbekistan from all over the world for travelers coming from farther away. This service is available for individuals coming from further away.

Anur Tour offers transfers and excursions using touristic class vehicles, including automobiles, minibuses, and buses, all driven by trained professionals. In addition, Anur Tour provides visa assistance services and a list of notes that are both helpful and clear regarding the documentation that is required for applications for tourist visas. Anur Tour offers the services of qualified local and escorting guides-interpreters to those individuals who are interested in gaining a deeper understanding of the history and culture of Uzbekistan. These tour guides are included in MICE (Meetings, Incentives, Conferences, and Exhibitions) packages, as well as private and group tours, excursions, and other types of tours. Anur Tour also provides businesses and other organizations with a variety of MICE-related services, including detailed event information, exclusive MICE package deals, and information on all types of MICE-related activities. The leasing of conference rooms, the provision of cuisine, translation and interpretation services, as well as the scheduling of transportation and lodging are all included in these services. Last but not least, Anur Tour makes it easy to obtain information about the prices of admission to historical and natural sights, museums, and other types of events, in addition to providing information about the availability of venues. This guarantees that guests are able to make early preparations for their trip itineraries. The following table provides a rundown of the primary tour packages available, along with the associated costs.

2.2 Analysis of the internal and external environment

Anur Tour is well-known in the Uzbekistan tourism industry for offering its customers with services of an exceptionally high standard. The company has a significant presence in this market. The company is able to provide a diverse selection of tourism-related services, such as the organization of tours, the reservation of accommodations, the provision of transportation, and other travel-related assistance. Anur Tour serves a wide array of customers, from independent vacationers to big tour groups, and provides a choice of vacation packages that may be customized to match the specific requirements and whims of each individual customer. SWOT analysis is important for Anur Tour as it allows the company to assess its internal strengths and weaknesses, as well as external opportunities and threats in the tourism industry. By conducting a SWOT analysis, Anur Tour can gain valuable insights into its current position and make informed decisions regarding its marketing strategy, service offerings, and overall business development. The analysis helps the company identify areas of improvement, capitalize on its strengths, address weaknesses, and navigate potential challenges in the competitive market. The SWOT analysis provides a structured framework for evaluating the company's internal and external factors, enabling Anur Tour to develop strategies that align with its goals and enhance its competitive advantage.

Anur Tour has a strong market position in Uzbekistan's tourism industry and is one of the largest tour operators in the country. This provides the company with a competitive advantage

and brand recognition within the domestic market. The company offers a diverse range of tour packages, including cultural, historical, and adventure tours, catering to a broad customer base. This diversified product offering increases its appeal and allows Anur Tour to meet the specific preferences and requirements of different customers.

Anur Tour benefits from an experienced management team that has extensive knowledge and expertise in the tourism industry. This enables them to make informed decisions, effectively manage operations, and maintain a high standard of service.

The company has established strong partnerships with airlines, hotels, and other service providers. These partnerships allow Anur Tour to offer competitive pricing, access exclusive deals and provide high-quality services to its customers. A SWOT analysis examines the internal strengths and weaknesses of a company, as well as the external opportunities and threats it faces. Here's a SWOT analysis for the development of the marketing strategy of Anur Tour:



Source: author's analysis based on the business plan of "Anur Tour".

Figure 2.2. SWOT analysis of the tourism company "Anur Tour".

Anur Tour has limited international presence, which restricts its ability to attract customers from outside of Uzbekistan. Expanding its reach into international markets could help the company tap into new customer segments and diversify its revenue streams.

The company is heavily reliant on the domestic market, making it vulnerable to changes in the local economy and political environment. Diversifying its customer base and exploring opportunities beyond the domestic market could help mitigate this risk. Anur Tour has limited online presence, which can be a disadvantage in today's digitally driven market. Enhancing its online presence and investing in digital marketing strategies would help the company reach a wider audience and improve its competitiveness. The brand recognition of Anur Tour outside of Uzbekistan is limited, making it challenging to attract international customers. Building a stronger brand presence and implementing targeted marketing efforts in key international markets could address this weakness. The Uzbekistan tourism industry is experiencing significant growth, supported by government investments in infrastructure development and marketing campaigns. This presents an opportunity for Anur Tour to capitalize on the increasing number of tourists visiting the country.

There is a growing interest in cultural and historical tourism, which aligns with one of Anur Tour's strengths. By further developing and promoting its cultural and historical tour packages,

the company can attract more customers who seek authentic and immersive travel experiences. The growing middle class in Uzbekistan represents an opportunity for Anur Tour to target a new customer segment. Offering tailored packages and services that cater to the preferences and affordability of the middle class can expand the company's customer base. Anur Tour has the opportunity to expand its operations into international markets. This would not only reduce its dependence on the domestic market but also allow the company to tap into new revenue sources and increase its global reach.

Political instability in Uzbekistan and the broader region poses a threat to the tourism industry. Unpredictable political situations can impact travel decisions and deter tourists from visiting the country, affecting Anur Tour's business. Competition from other tour operators in Uzbekistan, as well as international players entering the market, poses a threat to Anur Tour's market share. The company needs to continuously monitor and adapt to changing competitive dynamics to maintain its position.

Economic downturns can lead to a decrease in demand for tourism services. Anur Tour should be prepared to implement contingency plans and adjust its offerings to cater to changing customer preferences and economic conditions. Natural disasters and unforeseen events, such as pandemics, can disrupt travel and tourism activities. Anur Tour should have robust risk management strategies in place to mitigate the impact of such events on its operations and financial performance. By conducting a SWOT analysis, Anur Tour can gain valuable insights into its strengths, weaknesses, opportunities, and threats. This analysis enables the company to assess its current position, identify areas for improvement, and develop strategies to capitalize on opportunities and mitigate potential threats.

The political stability in Uzbekistan provides a favorable environment for Anur Tour and the tourism industry as a whole. The government's supportive policies, such as infrastructure development and marketing efforts, contribute to the growth and sustainability of the sector. The growing middle class in Uzbekistan presents an opportunity for Anur Tour to target a new customer segment. The steady economic growth in the country also contributes to a favorable environment for the tourism industry, as people have more disposable income to spend on travel and leisure activities.

Uzbekistan's rich multicultural heritage and diverse traditions provide opportunities for Anur Tour to offer unique cultural experiences to its customers. The predominantly Muslim population may require considerations for cultural sensitivities in tour offerings. The emphasis on hospitality in the country aligns well with Anur Tour's commitment to providing personalized and high-quality customer service.

Keeping up with technological advancements is crucial for Anur Tour's competitiveness in the tourism industry. The use of online booking systems, social media platforms, and mobile apps has become increasingly important. Anur Tour should invest in these technologies to improve the customer experience and reach a wider audience. The emergence of virtual reality technology also presents opportunities for Anur Tour to offer virtual tours, enhancing the accessibility and immersive experiences for customers.

By conducting a PEST analysis, Anur Tour can gain insights into the political, economic, socio-cultural, and technological factors that impact its business environment. This analysis helps the company understand the external factors that influence its operations, identify opportunities, and effectively respond to challenges in the dynamic tourism industry. A PEST analysis examines the external macro-environmental factors that can impact a company's marketing strategy. Here's a PEST analysis for the development of the marketing strategy of Anur Tour:

Table 2.2

PEST analysis of the company

PEST analysis of Anur Tour			
P	E	S	T
Political	Economic	Social	technological
<ul style="list-style-type: none"> Government policies and regulations related to tourism and travel industry in Uzbekistan. Political stability and geopolitical factors affecting international tourism. Visa policies and restrictions for tourists visiting Uzbekistan. Political support and incentives for promoting the tourism sector. 	<ul style="list-style-type: none"> Economic growth and stability in Uzbekistan and key target markets. Exchange rates and currency fluctuations affecting international travel costs. Disposable income and consumer spending patterns in target markets. Tourism-related infrastructure and investment opportunities in Uzbekistan. 	<ul style="list-style-type: none"> Demographic trends and changes in travel behavior. Cultural preferences and attitudes towards tourism in Uzbekistan. Social media and online platforms influencing travel decisions. Sustainable and responsible tourism practices and consumer demand for them. 	<ul style="list-style-type: none"> Advancements in digital technologies impacting marketing and distribution channels. Online booking platforms and mobile applications in the travel industry. Use of social media, influencers, and user-generated content for destination marketing. Technological infrastructure and internet penetration in Uzbekistan.

It's important to note that this is just a brief overview, and conducting a comprehensive PEST analysis would involve further research and analysis of each factor's specific impact on Anur Tour and its marketing strategy.

3. The economic justification of the Anur Tour

3.1 Promotional plan of the enterprise

Anur Tour is a leading tour operator in Central Asia that specializes in providing private and group tours, excursions, and other travel-related services to individuals and organizations. The company offers a wide range of services, including visa support, hotel bookings, transportation, guided tours, and MICE (Meetings, Incentives, Conferences, and Exhibitions) events.

Product: Individual travelers, groups of travelers, and organizations can all take advantage of the extensive variety of travel-related services that Anur Tour has to offer, all of which can be customized to meet their specific requirements and preferences. The travel services offered by the organization are crafted to give consumers an experience that is both memorable and pleasant while they are on the road. The Central Asian countries of Uzbekistan, Kazakhstan, Turkmenistan,

Kyrgyzstan, and Tajikistan are just few of the places that are included in the comprehensive travel packages offered by Anur travel. The tour packages offered by the organization range in duration, level of luxury, and theme, and might include things like cultural, historical, adventure, and culinary excursions. The process of providing tourist services consists of several stages and involves interaction with multiple parties:

a) First, there is the preparation for the trip, which includes the selection of tour options, consultation, booking, payment, and issuance of required tour documents. As an intermediary between the tour product producer (tour organizer) or tour operator and the visitor (customer of tour services), the travel agency handles this directly. At this stage, the agency bears sole responsibility for the grade of service, accuracy, and completeness of the provided information.

b) The subsequent phase of providing and receiving tour services involves the actual travel: transportation to the destination country (e.g., by aircraft or bus), airport reception, and hotel transfer by the receiving party. It also includes hotel accommodations, informational and excursion services provided by the tour operator's representative of the receiving party. The hotel stay concludes with a conveyance to the airport and a return home. During this phase, the travel agency acts as a customer support service, while the tour operator (the receiving party) has primary responsibility, influence, and quality control over the services. In some instances, the tour operator functions as the receiving party, maintaining a local office in the destination nation.

c) After-sales service is the concluding phase of the provision and consumption of tourist services. In the tourism industry, this refers to the conversation between the agent and client regarding the client's experience, as well as the gathering of information and feedback, and the planning of future travels. The "Anur Tour" network uses the Net Promoter Score (NPS) technology (customer loyalty index) to evaluate the agency's performance based on client feedback. The call center of the central office contacts the client upon the tourist's return home (after a few days) and asks, "How likely are you to recommend the 'Anur Tour' agency to your family and friends? Where 0 means they will not recommend at all, 10 means they will absolutely recommend".

The website also includes customer reviews, which serve as a testament to the quality of services provided by Anur Tour. Potential customers can also easily make online bookings and payments through the website, making the entire booking process convenient and hassle-free.

In addition to the website, Anur Tour has a strong social media presence, with profiles on Facebook and Instagram. These platforms serve as additional channels for the company to engage with potential customers and provide updates on its products and services. The company also uses social media to share customer reviews and testimonials, which further promotes the quality of services provided by Anur Tour. Anur Tour's promotion strategy also includes participating in international travel fairs and exhibitions.

These events provide the company with the opportunity to showcase its products and services to a wider audience and attract potential customers. The company also offers discounts and referral programs to incentivize repeat business and reward loyal customers. The company's participation in international travel fairs and exhibitions further promotes its products and services to a wider audience. By offering discounts, referral programs, and loyalty rewards, Anur Tour encourages repeat business and ensures that its customers feel valued and appreciated.

Anur Tour's marketing mix is balanced and tailored to meet the needs and preferences of its target market. The company's product offerings are diverse and well-designed to cater to a wide range of customers. The pricing strategy is transparent and competitive, offering customers value for their money. The company's promotion strategy is effective, utilizing various marketing channels to attract and retain customers. The company's online and physical presence provides customers with a convenient and personalized travel experience. Overall, Anur Tour's marketing

mix contributes significantly to the company's success and growth in the Central Asian travel market.

3.2 Development of a new marketing strategy

Before developing a new marketing strategy for Anur Tour, it is important to address the problems the company is currently facing. Firstly, Anur Tour has a weak digital marketing strategy, with a limited social media presence on platforms such as Facebook and Instagram, resulting in low numbers of followers and engagement. This lack of a strong digital marketing strategy is a missed opportunity for the company to reach a wider audience and promote its services effectively. Secondly, Anur Tour's services are primarily focused on Central Asia, which limits its potential customer base. Expanding its services to other regions or countries can help the company increase revenue and attract more customers. Lastly, Anur Tour's marketing efforts are inconsistent, with infrequent posts on social media and limited participation in international travel fairs and exhibitions. This inconsistency can lead to a lack of brand awareness and missed opportunities for customer acquisition. Addressing these issues will be critical in developing a new and effective marketing strategy for Anur Tour. The Ansoff Matrix is a strategic tool that helps businesses identify and evaluate growth opportunities. It provides a framework for analyzing the potential risks and rewards of different growth strategies. Let's apply the Ansoff Matrix to Anur Tour, a tourism services company based in Uzbekistan, and examine each part in detail.

Market penetration refers to the strategy of increasing market share within existing markets or customer segments. For Anur Tour, this would involve attracting more customers and increasing sales of their existing tourism services in the Uzbekistan market. They can achieve this by implementing aggressive marketing campaigns, improving customer service, offering competitive pricing, and enhancing their brand image. Market penetration allows Anur Tour to capitalize on its current strengths and leverage its reputation to gain a larger market share.

In order to have a successful product development strategy, it is vital to form strategic alliances with local travel operators, hotel providers, and guides in the various areas that are being targeted. Anur Tour ought to work together with credible and experienced partners who have an in-depth understanding of the local culture as well as the infrastructure and legislation that govern it. Anur Tour will be able to provide their consumers with real local experiences, guarantee a seamless flow of logistics, and deliver high-quality services as a result of the partnerships they have formed.

Anur Tour has the ability to form partnerships with community-based tourism initiatives, eco-lodges, and other local tour operators in the selected destinations. These agreements have the potential to enrich the genuine nature of the travel experiences, grant access to privileged areas, and help to the development of environmentally responsible tourism practices.

In order to launch new product offerings and pique consumers' interest in them, it is essential to have a solid marketing and promotion strategy in place. Anur Tour needs to make use of a variety of marketing channels, including digital advertising, social media campaigns, content marketing, and collaborations with travel bloggers and influencers. The messaging should place an emphasis on the distinctive characteristics of the places, the carefully selected experiences, and the knowledge and experience of Anur Tour in creating unforgettable travel adventures.

Each social media platform has its own characteristics and user preferences. Anur Tour should adapt the content and approach accordingly:

Regularly post engaging content such as stunning travel photos, informative articles, travel tips, and behind-the-scenes glimpses. Utilize Facebook Live for virtual tours, Q&A sessions, and live interactions with travel experts. Run targeted ads to reach specific demographics, and consider retargeting strategies to reach users who have shown interest in Anur Tour's offerings. Instagram's visual nature by sharing captivating travel images, stories, and videos. Use popular travel-related hashtags and geotags to increase discoverability. Collaborate with travel influencers

and encourage user-generated content through contests and hashtags. Explore Instagram Shopping to allow users to book tours directly from the platform.

The strategy can be implemented both in the short term (within three months) and in the long term. The strategy allows for outlining a general plan of action in the promotion field, while also allowing for the incorporation of ideas and changes in an agile manner. The main strategy which will be focused on is Instagram SMM strategy. During the planning phase of strategy implementation, we utilized a Gantt chart, which visualizes the project's stages and helps track parallel processes and ensure timely control over task execution. The campaign's duration is six months, excluding preparation and evaluation phases. The table presents a list of tasks and their respective deadlines. It is worth noting that the entire advertising campaign is divided into three major stages, with the main stage taking up six months, accompanied by a planning stage and a concluding stage, each lasting one month.

As the tourism company model pays more attention on retail sales and direct-to-customer sales of brand products, the company would use three key words for strategy: attract, engage and convert. How it works:

- Attract new customers through your online presence, gaining a stellar reputation and providing inviting offers.
- Engage existing customers through the social, email and mobile channels to be on top of their mind always.
- Convert online visitors to guests and drive repeat business through loyalty rewards.

In short, there are three main objectives to win the loyalty of costumers:

1. Content marketing-to create more informative contents about upcoming discounts, customer-friendly(coupons) offers and explaining the advantages of e-commerce.
2. To boost the awareness via social media, creating more videos with collaboration of bloggers, using more hashtags by customers on Instagram would increase sales.
3. To keep the balance improving the website traffic, analytics, rankings by creating a list of keywords to the web content by rescheduling the plan to avoid any declines in advance and creating bot in Telegram to make orders easily and quickly.

It is created by author content plan for social media for one week, given in the Table 3.1.

Table 3.1

Content plan for social media

	Facebook	Instagram	YouTube	Twitter	TikTok
For a week	Increase online sales by posting 5-6 times in a week	Widely-used app helps us to get larger amount of people being aware of about the restaurant by posts maximum 12-14 times	Uploading professionally created videos about the restaurant, menu and ingredients, organization of kids` party maximum 2 times in a week	Writing more twits for about 8-10 times in a week	Increase the awareness of consumers through releasing short videos 6-8 times in a week

Source: author's plan based on the marketing plan of the tourism company "Anur Tour" at the time of January 2023

It is generally accepted that social media accounts are becoming more and more popular as a result of advance technologies. The growth of social networks such as Instagram, Facebook and TikTok have already changed the life of us. Knowing how to use social media accounts in catering establishments will develop hot sales, brand recognition, no risk and attractive more costumers is the simplicity itself.

To come to the point, powerful social media platforms keep costumers posted about new catering establishment as quick as possible. Utilizing strong social media strategies effectively will indeed help to build brand identity, engage with customers, and develop unique offerings.

Conclusions and proposals

The development of a well-crafted marketing strategy is essential for the success and growth of a company like Anur Tour. By analyzing the current market conditions, understanding customer needs and preferences, and strategically positioning the company, Anur Tour can leverage its strengths and overcome challenges to achieve its business objectives. Through the implementation of an effective marketing strategy, Anur Tour can increase its market share, enhance its brand image, and expand into new markets. By focusing on product development, customer satisfaction, and differentiation from competitors, the company can attract and retain customers, leading to revenue growth and improved profitability. Furthermore, the proposed marketing strategy offers the potential for long-term sustainability by staying attuned to customer feedback, adapting to emerging trends, and fostering a culture of innovation. This will enable Anur Tour to remain competitive and meet the evolving needs of travelers in a dynamic industry. Leading tour company in Central Asia, Anur Tour, provides excursions, private and group tours, and other travel-related services. They offer individualized experiences in nations like Uzbekistan, Kazakhstan, Turkmenistan, Kyrgyzstan, and Tajikistan as part of their wide variety of products, which serve to individual tourists, groups, and organizations. Anur Tour strives to provide memorable and pleasurable travel experiences by offering a variety of tour packages with varied lengths, levels of luxury, and themes, such as cultural, historical, adventure, and culinary excursions.

Anur Tour prioritizes affordability while setting prices while yet catering to their target population. They provide tour packages at various price ranges that clearly include all necessary fees and costs, including lodging, transportation, and guides. Their affordable prices guarantee that customers get the most for their money. Anur Tour uses a variety of marketing techniques to effectively sell its services. Their comprehensive and user-friendly website, which includes thorough descriptions of tours and services, itineraries, prices, and contact information, acts as a key source of information for prospective consumers. The presence of client testimonials on the website serves as proof of Anur Tour's commitment to excellence. The business also has a significant online presence on social media sites like Facebook and Instagram, where it interacts with prospective clients, posts updates, and displays client endorsements. In order to reach a wider audience and draw potential consumers, Anur Tour regularly takes part in international travel fairs and exhibitions. The business promotes repeat business and assures client happiness by providing discounts, referral programs, and loyalty awards.

Anur Tour offers its travel services through a website and actual locations in Kyrgyzstan, Kazakhstan, and Uzbekistan. The web platform makes it simple to access services including online reservations, visa assistance, and customer support. Customers are given individualized support and a physical presence in the offices during their travels. Nevertheless, despite their marketing efforts, Anur Tour still confronts a number of difficulties. Their inadequate digital marketing approach is a major problem, as evidenced by their scant social media engagement and following on Facebook and Instagram. The lack of likes, comments, and follows suggests that their social media marketing efforts are failing to reach or engage their intended audience. Additionally, the

company's inconsistent social media posting and lack of contact with followers give the impression that Anur Tour is not keeping up with market developments or disseminating accurate information. Social media are extremely important in today's digital age for marketing. Due to the platform that social media provides for advertising, consumer engagement, and feedback, Anur Tour is losing out on potential customers by not actively participating in it. Anur Tour may reach a larger audience, enhance customer contact, and increase customer happiness by fixing their ineffective digital marketing approach and utilizing social media successfully.

Another difficulty is the narrow service scope of Anur Tour, which is exclusively focused on Central Asia. The company's ability to grow and remain competitive in the market may be hampered by this restricted concentration. Anur Tour might not be a good choice for tourists interested in other locations. In order to address this, Anur Tour can think about broadening the scope of its service offerings to incorporate additional areas or nations, either through collaborations with other travel companies or by establishing their presence in new areas. Anur Tour can boost revenue streams, draw in new clients, and better meet changing client demands by expanding their service offering. The inconsistent marketing strategies used by Anur Tour are another issue. Reduced brand exposure and missed possibilities for customer acquisition are the results of infrequent social media posting and minimal participation in international travel fairs and exhibitions. To keep customers interested and effectively compete with other tour operators, marketing activities must be consistent. Anur Tour can improve brand recognition, draw in new clients, and take advantage of business opportunities and events by implementing a more consistent marketing approach.

The primary issues that Anur Tour is now dealing with, such as insufficient digital marketing, a small market reach, and inconsistent marketing efforts, are addressed in the suggested marketing approach. The strategy, which makes use of the Ansoff Matrix, concentrates on market penetration, market development, and product development in order to spur growth and strengthen the company's position in the travel and tourism sector.

The planning phase of strategy implementation utilized a Gantt chart, which effectively visualized the project's stages and facilitated the tracking of parallel processes and timely control over task execution. The six-month duration of the advertising campaign, divided into three major stages, was carefully outlined, with each stage allocated a specific timeframe. The utilization of Instagram as a primary platform for social media marketing was strategically chosen due to its large user base and the ability to target specific demographics, interests, and behaviors.

The implementation strategy highlighted the importance of setting up the Instagram account and running SMM ads through Facebook Ads Manager. The step-by-step process of creating and publishing Instagram ads was outlined, emphasizing the benefits of increasing followers and expanding brand reach through engaging and visually appealing content. Measurement and optimization of ad performance using Facebook Ads Manager's analytics were emphasized to drive better results.

Obtaining a blue tick verification badge on Instagram was identified as a crucial milestone for "Anur Tour" to enhance credibility, authenticity, and trustworthiness in the tourism industry. The blue tick badge would not only increase visibility but also open doors to valuable opportunities, such as collaborations with influencers and potential partners.

The development of a concept for managing the account, mood board creation, and style board representation were emphasized to capture the essence of experiencing joy and happiness through travel. The content planning process on Instagram was highlighted as essential for maintaining consistency, strategic storytelling, and resource optimization. The content plan for Instagram presented a comprehensive approach to promote tourism in Uzbekistan, focusing on various aspects of Central Asian travel through daily posts, stories, and reels.

Community management tasks, including direct message and comment responses, as well as participation in external platforms, were identified as crucial for fostering engagement, building relationships, and maintaining a positive brand reputation. The recommended frequency for contests and giveaways was outlined to strike a balance between user engagement and avoiding attracting prize-focused individuals.

ГОСУДАРСТВЕННЫЙ АУДИТ РЫНКА ЦЕННЫХ БУМАГ РЕСПУБЛИКИ КАЗАХСТАН

Кабдешев Дамир Каирович

Магистр экономических наук, Евразийский Гуманитарный университет имени Л.Н. Гумилева, г. Астана, Республика Казахстан

Муратова Севара Бахытовна

Магистрант 2 курса ОП «Государственный аудит», Евразийский Гуманитарный университет имени Л.Н. Гумилева, г. Астана, Республика Казахстан

Аннотация

На сегодняшний день рынок ценных бумаг является одним из важнейших направлений развития экономики страны, поэтому правильно оценивать его состояние на данный момент, делать прогнозы на будущее и уметь находить решения для развития этого вида рынка является важной проблемой.

В Послании Главы государства народу Казахстана от 31 января 2017 года «Третья модернизация Казахстана: глобальная конкурентоспособность» обозначена необходимость придания импульса для развития фондового рынка, расширения возможности для населения инвестировать свои сбережения прежде всего в различные виды ценных бумаг и принятия мер, направленных на активизацию отечественного фондового рынка.

Одним из компонентов современной рыночной экономической системы является рынок ценных бумаг, который предполагает выпуск, размещение и обращение ценных бумаг с целью привлечения дополнительных инвестиций, в том числе иностранных, в экономику страны. Создание рынка ценных бумаг имеет решающее значение для оздоровления финансовой системы и преодоления спада производства. В условиях развитого рынка ценных бумаг возникает оптимальная структура общественного производства и создается бездефицитная экономика: общественное производство в основном соответствует общественному спросу. Рынок ценных бумаг во многих отношениях является лучшим и наиболее доступным источником финансирования экономического роста, макроэкономическим регулятором стихийно протекающих в рыночной экономике процессов.

Велика роль рынка ценных бумаг и в преодолении инфляционных процессов, ликвидации нарушений платежного баланса. Развитие рынка ценных бумаг позволяет создать условия для реализации антимонопольных требований при осуществлении инвестиционно-финансовой политики. Образование и развитие современной инфраструктуры фондового рынка, включающей целый ряд различных институциональных инвесторов (конкурентный банковский сектор, сеть инвестиционных фондов, субъекты накопительной пенсионной системы, страховые компании и др.), создает конкурентную среду на фондовом рынке. Это позволяет предотвратить финансовый монополизм банковских учреждений, уйти от чрезмерной концентрации капитала в банковской системе и, таким образом, значительно снизить стоимость инвестиционных ресурсов для реального сектора национальной экономики.

В целях регулирования отношений на рынке ценных бумаг Президентом Республики Казахстан образуется государственный орган по регулированию и надзору за рынком ценных бумаг и защите прав и интересов акционеров, который в своей деятельности руководствуется нормами Конституции, законодательством о рынке ценных бумаг и иным законодательством Республики Казахстан и действует на основании Положения, утверждаемого Президентом Республики Казахстан.

Финансовая система Республики Казахстан характеризуется банкоцентричной моделью. Основная доля активов финансовой системы сконцентрирована в банковском секторе. На банковский сектор приходится порядка 78% активов финансовой системы, 8% - Банк развития Казахстана, оставшиеся 14% - остальные секторы финансового рынка.

В финансовые институты включен Банк развития Казахстана, который в соответствии с законодательством Республики Казахстан имеет особый статус и относится к институтам развития, осуществляющим финансовые услуги без лицензии регулятора.

Наблюдается динамичный рост активов финансового сектора - с 2017 года совокупные активы финансовой системы увеличились на 74,5% до 44,3 трлн тенге, активы банков увеличились на 56% до 37,6 трлн тенге, активы остальных финансовых организаций увеличились на 190,5% до 6,7 трлн тенге.

Наряду с финансовыми организациями финансирование бизнеса в Казахстане осуществляется напрямую субъектами квазигосударственного сектора, роль которых существенно растет. Так, активы Банка развития Казахстана увеличились с 2017 года на 48,2% с 2,5 трлн до 3,7 трлн тенге.

Капитализация фондового рынка на 1 августа 2022 года составила 37,2 трлн тенге, продемонстрировав значительное восстановление в июле 2022 года на 3,0% или 1,1 трлн тенге (снижение с начала года на 15,7%).

Капитализация рынка акций после трехмесячного снижения продемонстрировала рост на 4,4% или 0,9 трлн тенге до 21,8 трлн тенге за счет роста цен акций индексных компаний. Несмотря на начало восстановления, капитализация рынка акций с начала 2022 года снизилась на 24,2% или 7 трлн тенге в результате снижения цен на акции на фоне ухудшения геополитической ситуации.

В результате роста цен на акции в июле 2022 года индекс KASE увеличился на 10,4% до 2953,54 пунктов. По состоянию на 1 августа 2022 года в торговых списках АО «Казахстанская фондовая биржа» (далее – KASE) находились 118 акций 103 эмитентов, из которых 46 выпусков допущены к обращению в секторе KASE Global. Объем торгов акциями в июле текущего года составил 7 млрд тенге, снизившись относительно июня на 20,1% или 1,8 млрд тенге из-за сокращения количества сделок с акциями на 12,6%.

На 1 августа 2022 года в торговых списках KASE находились 328 выпусков корпоративных облигаций 82 эмитентов. В июле 2022 года в официальный список KASE были включены 8 выпусков облигаций 2 эмитентов (АО «Казахстанский фонд устойчивости» и АО «НК «Қазақстан темір жолы»).

Объем торгов корпоративными облигациями на KASE за июль 2022 года вырос на 11,3% или 24,2 млрд тенге до 238 млрд тенге.

Государственный долг, торгуемый на KASE, в июле 2022 года вырос на 1,8% или 337,2 млрд тенге до показателя 18,9 трлн тенге.

Совокупный объем торгов государственными ценными бумагами на KASE по итогам июля 2022 года составил 639,8 млрд тенге, увеличившись за месяц на 4,7% или 28,6 млрд тенге. Объем торгов на первичном рынке государственных ценных бумаг вырос на 8,8% или на 45,2 млрд тенге до 559,9 млрд тенге.

На рынке коллективного инвестирования на 1 августа 2022 года действовали 44 паевых инвестиционных фонда, из которых 22 интервальных, 21 закрытый и 1 открытый.

Активы под управлением на рынке коллективных инвестиций на 1 августа 2022 года составили 481,7 млрд тенге, увеличившись за июль текущего года на 4,8 млрд тенге или на 1%, в основном, за счет положительной переоценки валютного портфеля ценных бумаг.

На 1 августа 2022 года 439,7 млрд тенге или 91,3% от совокупных активов паевых инвестиционных фондов составил портфель ценных бумаг, 97,8% которого состоит из ценных бумаг, выраженных в иностранной валюте.

В июле текущего года продолжился рост количества инвесторов. Количество субсчетов клиентов депонентов увеличилось на 18 195 или 5% до 385 909 субсчетов (с начала года рост на 75% или 165,7 тысяч субсчетов).

Активы профессиональных участников рынка ценных бумаг на 1 августа 2022 года составили 518,8 млрд тенге, увеличившись в июле текущего года на 1,8% (рост с начала года - 2,7%). Обязательства в июле 2022 года выросли на 4,0% до 130,7 млрд тенге. Собственный капитал вырос на 1% или 4 млрд тенге до 388,1 млрд тенге.

По результатам последнего исследования Всемирного экономического форума (ВЭФ), проведенного в 2019 году в рамках оценки глобальной конкурентоспособности, в международном сопоставлении уровень развития финансовой системы Казахстана является невысоким. Основными сдерживающими факторами на момент проведения оценки являлись высокий уровень неработающих займов (NPL), проблемы устойчивости отдельных банков и низкий уровень страховых премий.

С 2022 года изменение глобальной геополитической ситуации оказывает влияние на финансовый сектор. Вместе с тем финансовый сектор продолжает стабильно функционировать, что подтверждается оценками международных рейтинговых агентств. В июне 2022 года Fitch Ratings подтвердило суверенный рейтинг Казахстана на уровне "BBB" со стабильным прогнозом, что в том числе обусловлено стабильностью банковского сектора с учетом потенциальных рисков, связанных с санкциями.

На 1 января 2022 года на рынке функционируют 38 брокеров, 19 управляющих компаний, 51 инвестиционный фонд, 9 банков кастодианов, 2 трансфер-агента, фондовая биржа KASE, выполняющая функции центрального контрагента, центральный депозитарий и торговый репозиторий. Кроме того, в юрисдикции МФЦА функционирует биржа МФЦА - AIX и центральный депозитарий биржи МФЦА - AIX CSD.

Фондовый рынок страны с 2017 года классифицируется международными службами индексов MSCI, FTSE и S&P как "Приграничные рынки (Frontier Markets)". Ведется работа по улучшению позиции Казахстана в индексах MSCI, FTSE и S&P.

Совокупные активы профессиональных участников рынка ценных бумаг составили 505,1 млрд тенге, увеличившись за пять лет в 2,7 раза, активы под управлением составили 1,0 трлн тенге, увеличившись в 3,1 раза. Увеличению активов способствовал рост стоимости финансовых инструментов и приток инвестиций.

Порядка 80,2% активов организаций, осуществляющих управление инвестиционным портфелем, приходится на 5 профессиональных участников. На начало 2022 года индекс Герфиндаля-Хиршмана по рынку ценных бумаг Казахстана составил 1807, что характеризует его как умеренно-концентрированный рынок.

Биржевые показатели демонстрируют стабильный рост, что свидетельствует о повышении роли фондового рынка в финансировании экономики страны. Капитализация Казахстанской фондовой биржи (KASE) на начало 2022 года составила 44,2 трлн тенге, или 52,6% по отношению к ВВП, увеличившись с 2017 года на 73%.

На сегодня казахстанский фондовый рынок представлен единственной Казахстанской Фондовой Биржей (KASE –Kazakhstan Stock Exchange) (рис. 1-2).

На 01 октября 2022 года:

собственный капитал	24 648,4 млн KZT
оплаченный уставный капитал	4 065,6 млн KZT
количество объявленных акций	5 000 000
количество размещенных акций	1 075 231
балансовая стоимость акции	22 923,8 KZT

Рис. 1- Акции и капитал KASE

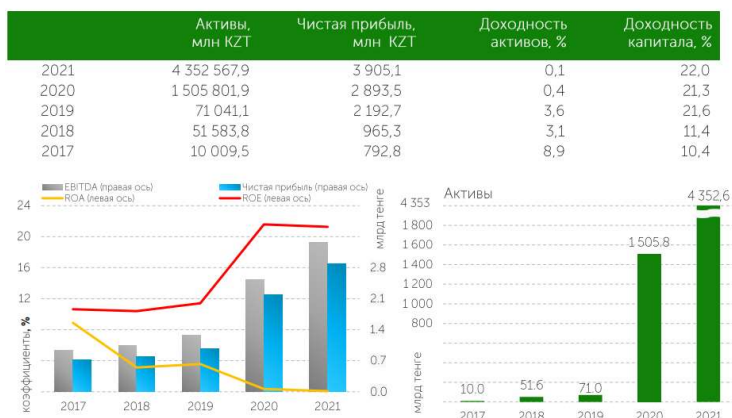


Рис. 2- Показатели доходности KASE

Основным фактором сохранения темпов роста рынка облигаций является увеличение объемов заимствований со стороны квазигосударственного сектора и банков второго уровня.

Одной из причин, препятствующей активному развитию казахстанского фондового рынка, является относительно низкая активность розничных инвесторов. Количество счетов физических лиц на рынке ценных бумаг за 5 лет увеличилось на 107 тыс. до 218 тыс. счетов, что составляет 2,5% от занятого населения. Невысокий интерес розничных инвесторов к фондовому рынку связан с низкой ликвидностью торгуемых ценных бумаг и ограниченным предложением ценных бумаг качественных эмитентов.

С 2017 года в Казахстане функционирует биржа МФЦА - AIX, являющаяся членом Федерации европейских и азиатских фондовых бирж FEAS. В группу AIX входят центральный депозитарий ценных бумаг AIX CSD и регистратор AIX Registrar, отвечающие за ежедневные операции с наличными, расчеты по ценным бумагам и депозитарную деятельность, а также хранение и поддержку центрального реестра акционеров.

В официальный список AIX вошли 136 выпусков ценных бумаг 86 эмитентов. В 2021 году объем торгов на рынке ценных бумаг AIX составил 134,3 млрд тенге.

По итогам 2021 года 35 торговых членов AIX предоставляют прямой доступ к бирже AIX, из них 12 являются иностранными. Количество счетов в AIX CSD на аналогичную дату составило 160,5 тыс. счетов. При этом основная часть данных счетов приходится на клиентов брокеров-лицензиатов Агентства, имеющих удаленное членство на AIX.

К числу нерешенных проблемных вопросов в развитии рынка ценных бумаг следует отнести:

- Улучшение законодательства и контроль за выполнением этого законодательства;
- Глобальный финансовый кризис развивающихся рынков;
- Повышение роли государства на фондовом рынке;

- Проблема защиты инвесторов;
- Низкая активность розничных инвесторов;
- Дефицит финансовых инструментов;
- Манипулирование ценами;
- Острая необходимость в повышении инвестиционной грамотности населения.

Многие страны, такие как Дания, Италия, Бельгия, Корея и другие, применяют меньшую ставку для налогообложения дивидендов по сравнению со стандартной ставкой подоходного налога. Таким образом, эти страны смягчают двойное налогообложение на дивиденды. В Люксембурге и Германии предусмотрено льготное налогообложение для физических лиц, которое заключается в освобождении от уплаты налогов от половины суммы дивидендов. Например, работающий человек помимо заработной платы получает дивиденды от участия в доле акционерного общества в размере 10 денежных единиц, налогообложению будет подвергаться 5 единиц, а остальные 5 единиц освобождаются от налогообложения. В Греции физические лица полностью освобождаются от уплаты налога на дивиденды, полученные от национальных компаний.

Таким образом, можно сделать вывод, что большинство стран придает особое значение аудиту эффективности рынку ценных бумаг, а одним из главных критериев выбора страны для размещения своего капитала является существующий в ней налоговый режим. В целом, объекты налогообложения стран похожи. Основные различия заключаются в величине налоговых ставок, порядке налогообложения, а также преференциях для инвесторов в виде налоговых льгот и вычетов. Ежегодно происходят изменения в налоговых законодательствах для того, чтобы переманить свободный капитал населения в экономику своей страны. Поэтому можно уверенно сказать, что налоговая конкуренция среди всех государств и дальше будет расти, а аудит эффективности, тем временем, будет совершенствоваться.

В ЕС в реализацию задач устойчивого развития субъекты корпоративного сектора расширяют инвестиции в проекты, направленные на достижение устойчивого и инклюзивного роста, а также управление рисками, связанными с изменением климата и социальными проблемами.

В развитых странах применяются формы "мягкого регулирования" посредством установления добровольного порядка раскрытия организациями информации о соблюдении принципов ESG. В некоторых странах публикация информации по ESG является обязательной, предусматривая поэтапное раскрытие информации о соблюдении стандартов ESG на уровне компании, а затем на уровне собственников и клиентов.

В настоящее время происходит трансформация финансовой системы под воздействием новых глобальных мега трендов и локальных вызовов.

Четыре стратегических направления развития содержат специфические секторальные задачи и инициативы для ключевых участников финансового рынка - банков второго уровня, страховых организаций, участников рынка ценных бумаг и рынка микрофинансирования.

1. Направление развития "Обеспечение финансовой стабильности и поддержание доверия к финансовому сектору"

Агентство совместно с НБ будет способствовать обеспечению стабильности финансового рынка и финансовых организаций путем реализации эффективной макропруденциальной политики и совершенствования риск-ориентированного надзора.

Усилению доверия к финансовому сектору будет способствовать совершенствование системы противодействия злоупотреблениям на финансовом рынке и укрепление сотрудничества с зарубежными регуляторами.

2. Направление развития "Развитие инноваций, финансовых технологий новых бизнес-моделей и компетенций на финансовом рынке"

Развитие новых бизнес-моделей и инноваций будет осуществляться за счет стимулирования развития новых финансовых технологий и компетенций на финансовом рынке. Будут приняты меры по созданию регуляторной среды для безопасного внедрения инноваций на финансовом рынке, формирования справедливой конкуренции за счет внедрения стандартов Open API и Open Banking, имплементации принципов ESG и "зеленого" финансирования, а также введения регуляторных и надзорных технологий (SupTech и RegTech).

3. Направление развития "Обеспечение добросовестного поведения, защита прав и интересов потребителей финансовых услуг"

Планируется внедрение новой комплексной модели защиты потребителей, предусматривающей превентивное надзорное реагирование на основе анализа бизнес-моделей и стратегий финансовых организаций для выявления недобросовестных практик и защиты прав потребителей.

В целях обеспечения добросовестной работы с потребителями будут внедрены поведенческие стандарты для финансовых организаций и стандарты финансовой инклюзии для вовлечения в финансовую систему всех групп потребителей.

4. Направление развития "Финансирование экономики и развитие банковского сектора"

Повышение роли банковского сектора в финансировании экономики является приоритетной задачей. Будут реализованы задачи по стимулированию кредитования бизнеса, совершенствованию механизмов банкротства и реабилитации заемщиков, созданию рынка неработающих активов, совершенствованию бизнес-процессов и процедур банков. Планируется принять меры по повышению эффективности механизмов возврата займов, вовлечению залогового имущества в экономический оборот, созданию институциональных и законодательных стимулов для появления частных инвесторов и управляющих на рынке стрессовых активов.

Кроме того, будут приняты меры по развитию альтернативных форм финансирования и расширению доступного для бизнеса рыночного фондирования, усовершенствованы механизмы государственно-частного партнерства.

5. Направление развития "Развитие страхового сектора как инструмента защиты финансовых интересов"

Мероприятия по развитию страхового сектора будут сконцентрированы на эффективном развитии страхового рынка, ориентированного на повышение благосостояния населения и защиту его имущественных интересов, а также повышение устойчивости страхового рынка. Будет продолжена цифровизация страховых услуг, создана база данных страховой статистики для обеспечения справедливого тарифообразования и полноценного андеррайтинга клиентов, а также эффективного надзора и регулирования.

6. Направление развития "Развитие рынка ценных бумаг как одного из эффективных инструментов финансирования экономики".

Для развития рынка ценных бумаг будут реализованы мероприятия по повышению институционального и розничного спроса, проведению IPO, улучшению позиций Казахстана в международных индексах. Будет продолжена масштабная технологическая модернизация инфраструктурных организаций фондового рынка для развития регионального учетно-расчетного хаба. Развитие рынка капитала будет осуществляться в тесном взаимодействии с МФЦА для повышения синергетического эффекта от функционирования двух бирж.

7. Направление развития "Развитие небанковского сектора и микрофинансирования".

В рамках развития рынка микрофинансирования будет расширен спектр предоставляемых субъектами рынка услуг для более полного удовлетворения спроса потребителей, реализованы меры по расширению и диверсификации источников фондирования субъектов рынка, приняты меры по улучшению качества и транспарентности микрофинансовых услуг, а также внедрению пропорционального регулирования субъектов рынка.

Список использованной литературы:

1. Закон Республики Казахстан от 20 ноября 1998 года № 304-І «Об аудиторской деятельности» (с изменениями и дополнениями по состоянию на 18.11.2022 г.)
2. План совместных действий Правительства Республики Казахстан и Национального Банка Республики Казахстан по развитию национального фондового рынка на 2018 – 2021 годы (Утвержден постановлением Правительства Республики Казахстан от «25» января 2018 года №32)
3. Указ Президента Республики Казахстан от 26 сентября 2022 года № 1021 «Об утверждении Концепции развития финансового сектора Республики Казахстан до 2030 года».
4. Теория государственного аудита. – Астана: Счетный комитет по контролю за исполнением республиканского бюджета. 2018. – 328с.
5. Государственный финансовый контроль: Учебник. – Астана: ЕНУ им. Л.Н. Гумилева. 2019. – 391с.

ISSUES OF DEVELOPING THE EXPORT POTENTIAL OF THE REPUBLIC OF KAZAKHSTAN

Tatyana Pupysheva

master of economic sciences, PhD student, specialty "State and local government", Karaganda University of Kazpotrebsoyuz, Kazakhstan, Karaganda

Anton Kurilkin

master of economic sciences, PhD student, specialty "State and local government", Karaganda University of Kazpotrebsoyuz, Kazakhstan, Karaganda

Abstract.

The article considers the need to develop export activities, including in order to ensure the economic security of the country. The authors show the benefits of export, both for individual exporting companies and for states. The incentives for companies to carry out export activities are described. The factors influencing the competitiveness of exported products, as well as the measures necessary for enterprises to enter foreign markets, are analyzed. In addition, the weaknesses of the export activities of Kazakhstan are shown, as well as the possibilities for the development of national systems of state support for exports.

Keywords: export, export potential, world market, international market, competitiveness, economic security.

The integration of Kazakhstan into the world economy is constantly increasing, this actualizes the importance of foreign trade activities. At the same time, responsible exports have significant negative features, such as: the increase in exports occurs mainly due to fuel and raw materials, mainly energy and raw materials prevail in the export structure, while the share of the manufacturing industry is insignificant. Therefore, the need for the development of export activities through qualitative changes and stimulation, first of all, of industrial exports is obvious.

In addition, special importance in any modern state is given to ensuring national security. According to the Law of the Republic of Kazakhstan "On the National Security of the Republic of Kazakhstan", the country's economic security includes only the following components:

"1) financial security, which provides for the state of protection of the financial system from real and potential threats, in which the state is able to ensure its integrity, independence and sustainable development;

2) food security, which provides for the state of security of the economy, including the agro-industrial complex, in which the state is able to provide physical and economic accessibility to the population of high-quality and safe food products sufficient to meet the physiological norms of consumption and demographic growth;

3) energy security, which provides for the state of protection of the fuel and energy, oil and gas and nuclear energy complexes of the economy from real and potential threats, in which the state is able to ensure energy independence and their sustainable development to meet the needs of society and the state in energy resources;

4) transport security, which provides for the state of protection of the transport sector of the economy from real and potential threats, in which the state is able to create conditions to

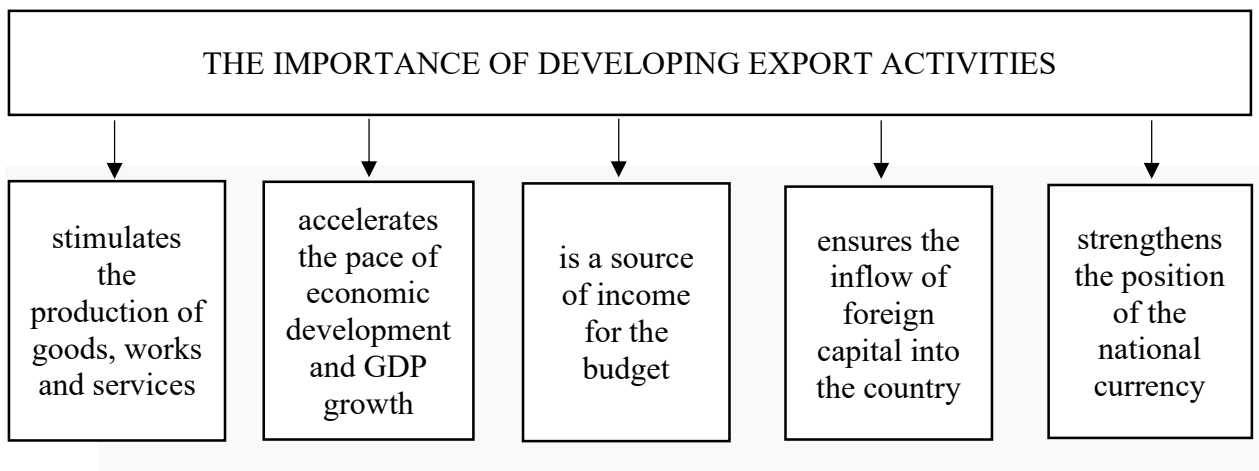
meet the needs of the economy and the population in transportation by road, rail, air, sea and river modes of transport and related services, the formation and development of transport infrastructure, as well as sustainable development and competitiveness" [1].

An important factor in strengthening the security of the state, including economic, developing its competitiveness, as well as ensuring sustainable development, is the stimulation of foreign economic relations, and therefore the development of exports.

In general, export is a type of foreign economic activity, which consists in the sale of raw materials, goods and services to foreign partners in order to make a profit. Not only individual enterprises, but also states are interested in stimulating and developing exports. Foreign trade relations for the economy of states are certainly important. Being a supplier of goods and services to international markets, the country demonstrates its competitiveness, shows itself as a reliable partner with whom it is possible to build long-term trusting relationships. All export operations are controlled by the relevant state authorities and are carried out in accordance with the customs legislation of the exporting country, since the implementation of export operations occurs at the time of crossing the state border by goods, rendering services to a foreign partner, transferring rights to the results of intellectual property.

The importance of developing export activities is undeniable. Its main manifestations are shown in Figure 1.

Figure 1 – Importance of exports



Compiled by the author

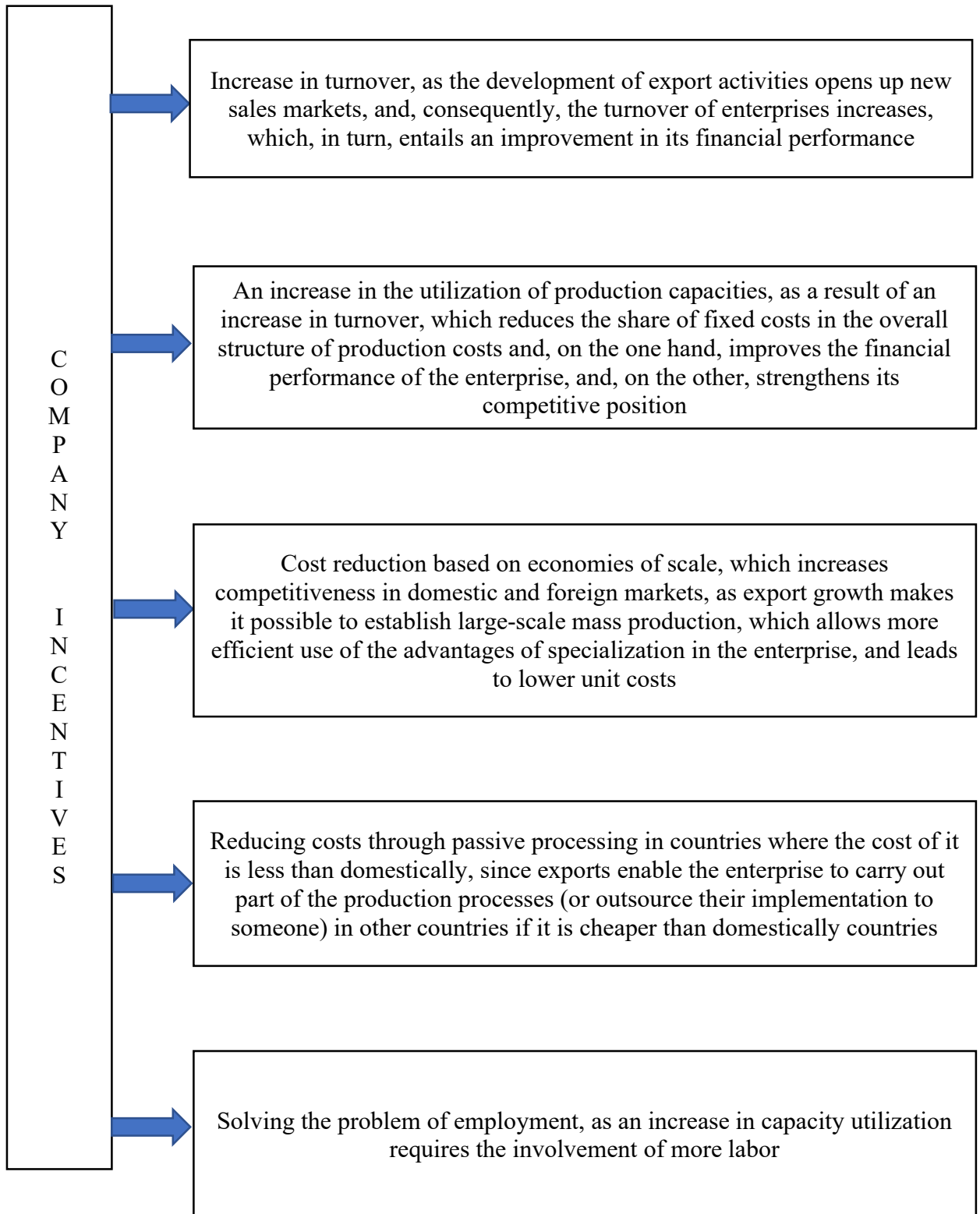
All of the above aspects describe the objective need for export development. At the same time, under such conditions, states also need to maintain a trade balance, since a significant excess of exports over imports leads to an overvalued national currency and price increases, and, accordingly, a decrease in the competitiveness of domestic goods in the foreign market. Don't forget about it. The balance of export-import operations is an important condition for the successful development of the country's economy. Enterprises, in turn, are interested in entering international markets. After all, this provides them with a lot of new opportunities. However, this process is not so simple, as evidenced by many nuances. Nevertheless, if a company strives to increase its potential, it needs to increase the volume of sales of goods / services, then foreign markets provide it with such opportunities, and entering them can lead to a significant expansion of the consumer network, and, consequently, profit growth. This gives it the prospect of long-term growth, but at the same time it is necessary to adapt to the national characteristics of each individual sales market.

At the same time, the company's entry into international markets must be approached carefully. Before making an appropriate decision, the business owner should analyze the state of his company, assess its export potential. To do this, he and his experts need to identify:

- whether its products/services are in steady demand in the local market;
- whether his enterprise has exhausted the potential of the domestic market;
- what is the competitiveness of its products/services;
- whether his company has sufficient financial resources to enter foreign markets, or can get them;
- what activities need to be implemented to enter international markets;
- what kind of assistance from the state (both financial and non-financial) the company can receive.

There are many incentives for companies to enter international markets. The main incentives that encourage enterprises to export their products are shown in Figure 2.

Figure 2 – Incentives for companies to carry out export activities

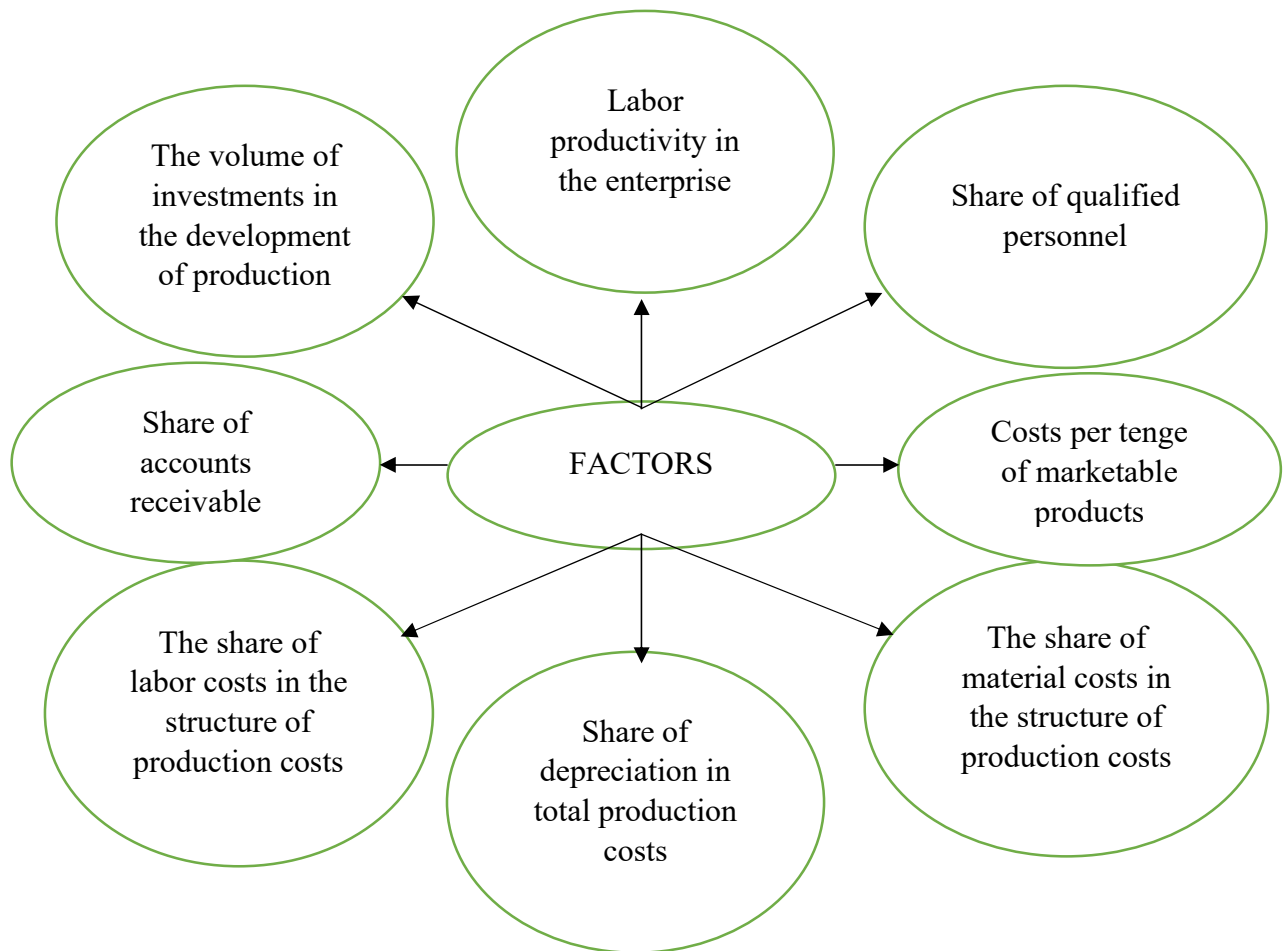


Compiled by the author

In addition, it is necessary to comprehensively assess the internal resources and environment of the company, analyze the factors affecting the competitiveness of the products/services produced.

There are many factors that affect the competitiveness of exported products. The main ones are shown in Figure 3.

Figure 3 – Factors affecting the competitiveness of exported products



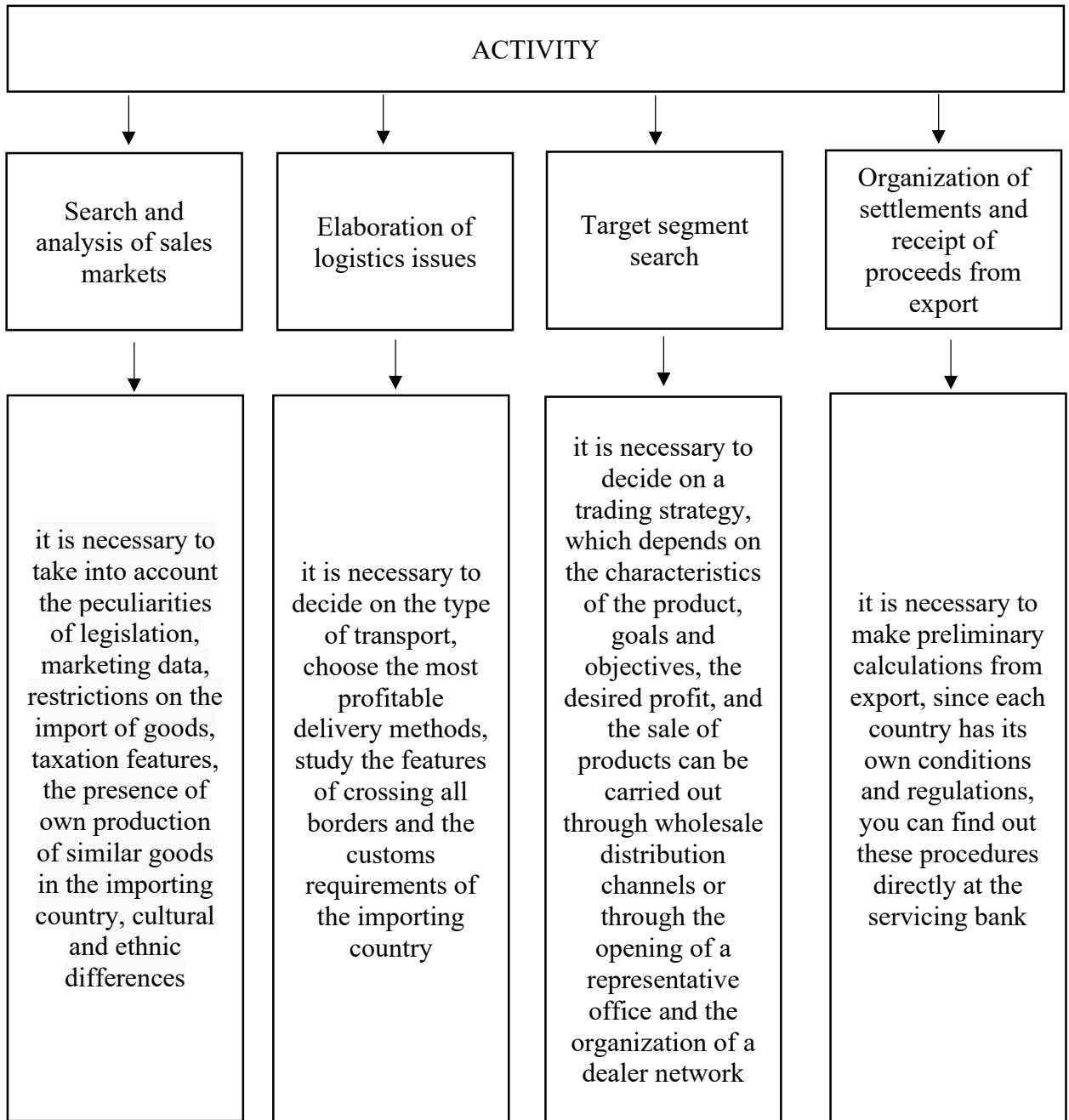
Compiled by the author

Thus, the main factors affecting the competitiveness of exported products include: the company's labor productivity, the share of qualified personnel, the cost per tenge of marketable products, the share of material costs in the cost structure, the share of depreciation of total production costs, the share of labor costs in the structure of the cost of production, the share of receivables and the total volume of investments in the development of production or services. These are the main, but not all, factors, their number can be continued, and depends on many circumstances. Only after studying all of the above factors, it is possible to determine whether it is worth it for a company to enter foreign markets and engage in export activities. But even if these factors turn out to be positive, one must be prepared for a number of difficulties, both financial and non-financial. Under these conditions, government export promotion is of particular importance. In Kazakhstan, it is based both on the best world experience and takes into account modern realities and features of our country. State support for enterprises in the field of exports includes a set of financial and non-financial measures implemented through national institutions to assist in the establishment and development of foreign economic relations. Various state structures and bodies are working on the development of export activities: ministries, national

institutions, public organizations and foundations. They carry out their work taking into account the peculiarities of the national export strategy.

However, individual companies also need to carefully develop their own export strategies, which include a number of activities. The main ones are shown in Figure 4.

Figure 4 – List of measures to enter foreign markets



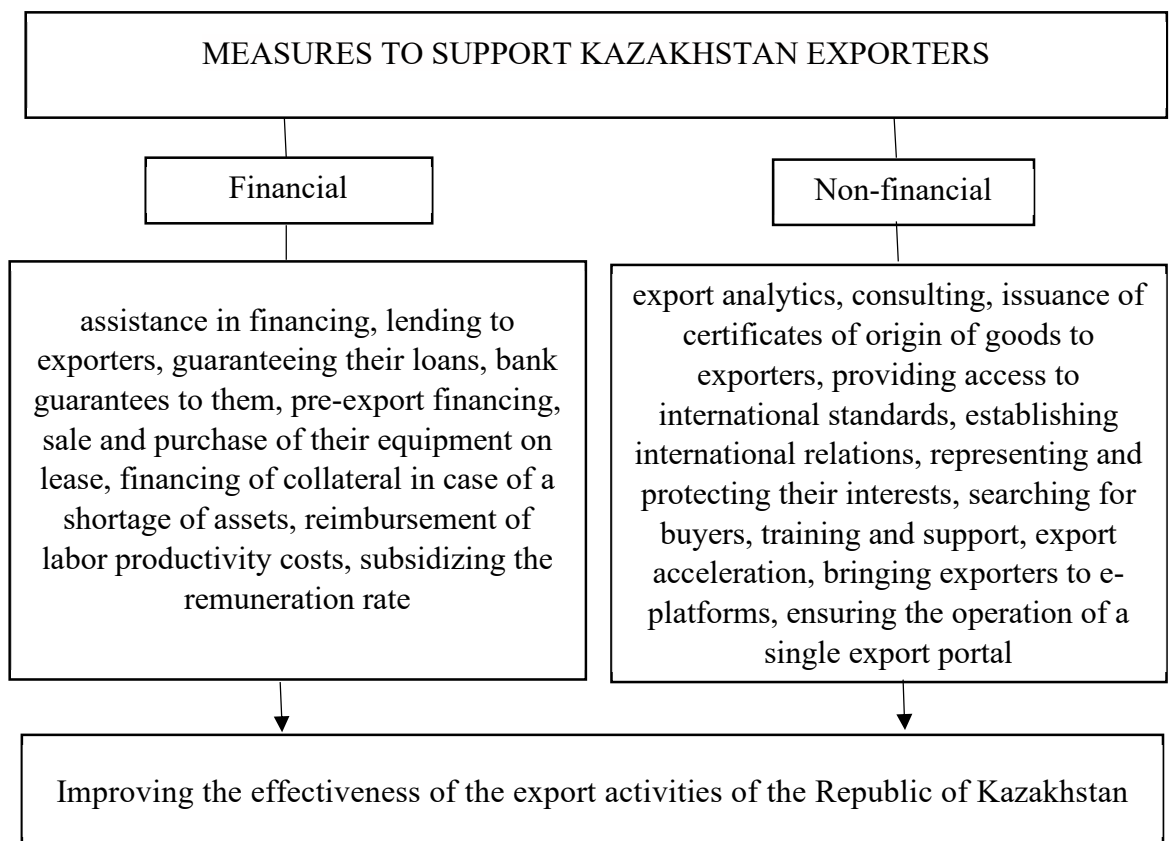
Compiled by the author

Currently, active support is being provided to exporting companies in the Republic of Kazakhstan. It is implemented through various measures, both financial and non-financial. At the moment, due to the special attention of international trade to high-added goods, financial measures are of particular importance, carried out by providing exporting companies with various

financial services, as well as funds from the state budget. Subsidies enable exporters to lower the prices of their goods, thereby penetrating hard-to-reach markets. Concessional government lending and export insurance also play a special role in this process. The main measures to support Kazakhstani exporters are shown in Figure 4.

National institutions of Kazakhstan, such as: Qaztrade Trade Policy Development Center JSC, KazakhExport Export Insurance Company JSC, DAMU Entrepreneurship Development Fund JSC, Kazakhstan Industry Center JSC and export "QazIndustry", JSC "National Company "KAZAKH INVEST" and others, carry out this activity.

Figure 5 – Main government measures to support Kazakh exporters



Compiled by the author based on [2]

All these measures have been developed in accordance with the National Export Strategy Program adopted in 2017. In addition, this Strategy indicates that the weaknesses of Kazakhstan in the implementation of export activities are:

- low-income structure of the export basket, represented by commodities and low value-added processed goods,
- high resource intensity of production and high investment needs for priority export production,
- high cost and duration of export procedures,
- insufficient development of transport and logistics services [2].

Kazakh authors Kulbatyrov N.N. and Zhanabergenova M.A. believe that in order to implement a systematic approach to the development of national systems of state support for exports, it is advisable to take as a basis similar trends in the development of these systems in the major economies of the world. These include, in particular, the following trends:

– Systematic improvement of export promotion institutions in order to achieve maximum efficiency and effectiveness of their work, following the example of the United States, where starting from 2010, on these principles, a deep institutional reform of the export promotion system is being carried out, covering all its main links, with the possible formation of a new super agency;

– Preservation of the leading role of the state while strengthening elements of public-private partnership in national export promotion systems. An example here is the co-financing by the state and business of foreign chambers of commerce in Germany, the costs of conducting marketing research in Japan, the distribution of risks between the state and business in the implementation of export support projects in the UK;

– Strengthening and expanding the functions of specialized state export promotion agencies, merging them with investment agencies or empowering export promotion agencies in fundraising, following the example of Germany and the United States;

– Expanding the network of foreign representative offices of national organizations/agencies to support foreign economic activity or strengthening their staff in diplomatic missions, for example, in dynamically developing countries with emerging markets;

– Strengthening the regional export support infrastructure in a number of countries of the world by improving the efficiency of existing and creating new institutions and tools for the development of foreign economic activity, including on the principles of public-private partnership;

– Strengthening coordination between the center and regions in the field of export support;

– Expanding the use of the international development assistance mechanism as a tool for promoting exports, as well as involving leading developing economies, including China and India, in this activity by creating appropriate institutions in these countries. Development of new programs and tools for information and consulting, promotional, credit-guarantee and other types of support for small and medium-sized businesses following the example of Germany;

– Implementation of "export initiatives", which provide for a set of measures to promote German high-tech products to foreign markets;

– Expansion of activities in the field of export support on the principles of an individual approach and achieving maximum customer focus through individual programs for entering the market or business development programs abroad, as well as improving the quality of public services by bringing them as close as possible to the needs of customers [3].

Taking into account global trends in the development of export activities, in conjunction with the currently implemented measures of state support for exporting companies, will allow Kazakhstan to increase its export potential and strengthen its position in the global trade market.

This research is funded by the Science Committee of the Ministry of Science and Higher Education of the Republic of Kazakhstan (Grant No. AP19680334).

References:

1. Law of the Republic of Kazakhstan dated January 6, 2012 No. 527-IV "On the National Security of the Republic of Kazakhstan". URL: <http://adilet.zan.kz/rus/docs/Z1200000527>.

2. Decree of the Government of the Republic of Kazakhstan dated August 26, 2017 No. 511 On approval of the Program "National Export Strategy". URL: <https://adilet.zan.kz/rus/docs/P1700000511>.

3. Kulbatyrov N.N., Zhanabergenova M.A. The mechanism of export financing as a measure to ensure the country's foreign economic security // Bulletin of KazNU. Series economic. – 2017. – No4 (122). – P.173-186.

НЕКОТОРЫЕ АСПЕКТЫ ФИНАНСИРОВАНИЯ ТУРИЗМА КАК ВАЖНОГО СЕКТОРА СФЕРЫ УСЛУГ АЗЕРБАЙДЖАНА

Исмаилзаде Юсиф Исрафил

Азербайджанский Университет Кооперации

Аннотация

В статье исследуются некоторые вопросы финансирования туризма как важной отрасли сектора услуг. Целью статьи является раскрытие основных направлений в финансировании туристических услуг. Рассматриваются экономические методы формирования финансовых механизмов туризма, а также основные фонды по финансированию туристических предприятий. В конце статьи даются обобщенные выводы.

Ключевые слова: туризм, финансы, фонды, аналитические методы, предприятия.

SOME ASPECTS OF TOURISM FINANCING AS AN IMPORTANT SERVICE SECTOR IN AZERBAIJAN

Ismailzade Yusif Israfil

Azerbaijan Cooperation University

Summary

The article examines some issues of tourism financing as an important branch of the service sector. The purpose of the article is to reveal the main directions in the financing of tourism services. Economic methods of forming financial mechanisms for tourism, as well as fixed assets for financing tourism enterprises, are considered. At the end of the article generalized conclusions are given.

Key words: tourism, finance, funds, analytical methods, enterprises.

Введение

Основные характеристики финансирования туризма определяются исходя из особенностей ценообразования. Цена туристского продукта в основном формируется в результате влияния следующих факторов [1]:

- Факторы турагента и туроператора;
- Стоимость услуги;
- Возрастные группы туристов;
- Сезонность;
- Перечень услуг, входящих в Турпакет;

Капитальные затраты являются одним из основных понятий, возникающих при расчете цены туристского продукта, производимого туристским предприятием. Капитальные затраты формируются исходя из финансовых возможностей, финансового потенциала туристской деятельности, а также необходимости его воспроизводства. Каждое туристическое предприятие или организация строится на принципе предоставления услуг высокого уровня и получения в результате прибыли. Основные характерные черты финансирования туристского предприятия измеряются следующими критериями [1]:

- Общий объем оказанных услуг с точки зрения рентабельности;
- Объем услуг, предоставляемых каждому туристу;
- Уровень рентабельности услуг, предоставляемых туристам, приехавшим с экскурсионной целью;
- Регулирование оборотного капитала;
- Прибыль;
- Заработная плата.

Каждое туристическое предприятие корректирует свой финансовый механизм с помощью методов экономического анализа. Методы экономического анализа отражены в следующей схеме:

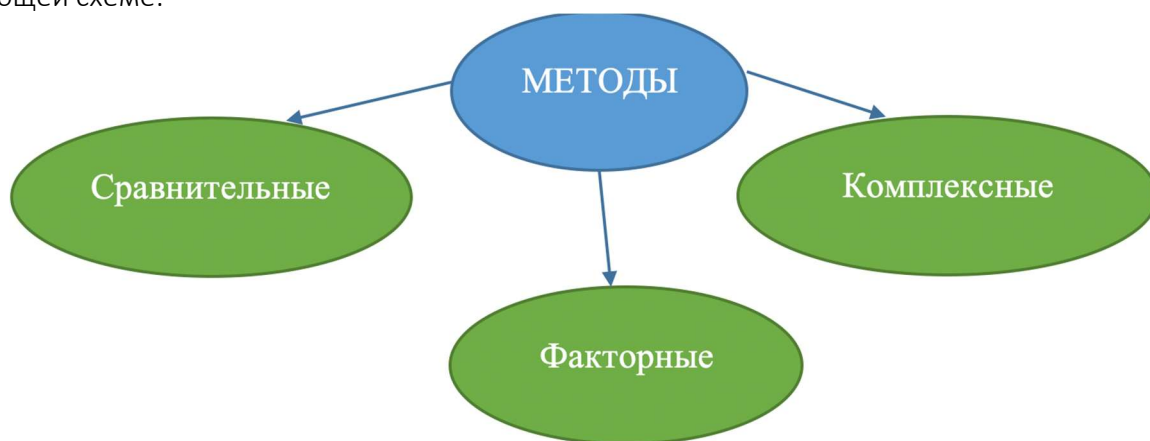


Схема 1. Методы экономического анализа

Источник: схема составлена автором на основании данных [2].

При экономическом анализе финансового механизма туристского предприятия на базе сравнительного метода за основу берется сравнение фактических показателей и прогнозных показателей. Основная цель реализации сравнительного метода экономического анализа состоит в следующем:

- Обеспечение надлежащей работы туристического предприятия;
- Определение неиспользованных резервов и финансовых ресурсов в результате туристской деятельности;
- Комплексный анализ уровня выполнения прогнозных показателей, поставленных перед производством туристского предприятия;
- Методы экономического анализа Комплексные по сравнительным факторам;
- Обеспечение реализации необходимых мер для измерения уровня предоставляемых услуг и повышения качества обслуживания.

Соответствие между фактическими показателями и прогнозируемыми показателями является доказательством того, что предприятие достигло поставленной цели. При этом факт превышения фактических показателей над прогнозными является основой прибыльной работы туристского предприятия в текущем периоде. Большое значение имеет процесс расчета прибылей и убытков предприятий в результате изменения отдельных экономических факторов посредством факторного метода метода экономического анализа, используемого при регулировании финансового механизма туристского предприятия. Посредством комплексного анализа, а также одновременного применения метода экономического анализа осуществляется процесс выявления неиспользованных экономических ресурсов в процессе деятельности туристского предприятия и вовлечения его в процесс воспроизводства. Комплексный подход к анализу финансового механизма туристского предприятия осуществляется на основе оценки хозяйственной деятельности и предварительного описания. Регулирование финансового механизма туристского предприятия посредством экономического анализа осуществляется в несколько этапов.

Эти этапы состоят из следующего:

- Стадия разработки программы экономического анализа;
- Этап отбора, проверки и анализа данных, необходимых для экономического анализа;
- Этап определения и расчета экономических показателей;
- Этап аналитической разработки и сравнения системы экономических показателей предприятия;
- Этап доработки результатов, полученных в ходе анализа и сравнения.

Как мы упоминали в предыдущих пунктах, основной объект прибыли туристского предприятия создается в результате реализации туристского продукта. и каждое туристическое предприятие или организация имеет право тратить, инвестировать и воспроизводить полученную прибыль по своему усмотрению. Таким образом, туристические предприятия завершают цикл своей коммерческой деятельности, распределяя полученную прибыль по различным фондам внутри компании. Вышеупомянутые фонды, созданные в туристских предприятиях, комплексно перечислены в следующей схеме:

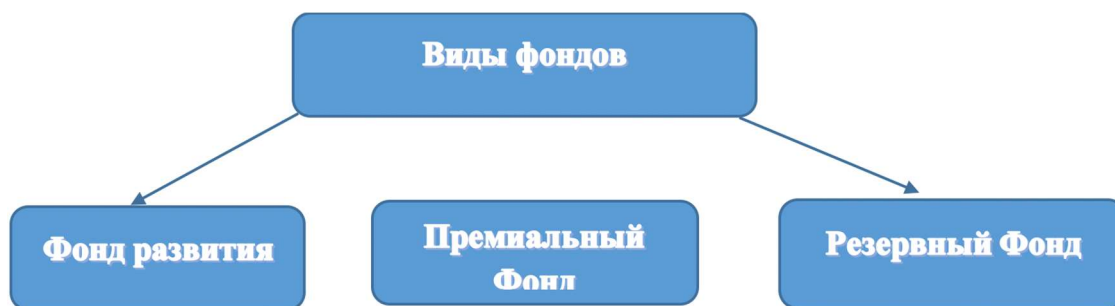


Схема 2. Фонды, созданные в туристских предприятиях
Источник: схема составлена автором на основании данных [3].

Как видно по схеме 2, любое предприятие, осуществляющее туристический бизнес, реализует три основных фонда - фонд развития, призовой фонд и резервный фонд, которые являются средствами, созданными внутри туристского предприятия и служащими его разным целям. Теперь ответим на вопрос, для чего были созданы эти так называемые фонды и чему они служат:

1. *Фонд развития.*

Назначение данного фонда в том, чтобы прибыль, полученная в результате деятельности туристического предприятия, служила развитию или дальнейшему расширению предприятия. Фонд развития заботится о реализации следующих мероприятий в целях обеспечения устойчивого развития предприятий:

- Поиск и открытие новых типов маршрутов и каналов;
- Обеспечение открытия новых представительств, заводов и подразделений;
- Установление взаимной рабочей среды с другими организациями, относящимися к соответствующей сфере, а также обеспечение расширения экономических отношений;
- Обеспечение реализации и развития дочерних организаций, которые могут функционировать при предприятии.

2. *Премияльный фонд.*

Основной целью создания данного фонда является повышение мотивации работников предприятий. Известно, что более стабильная работа предприятия – это результат именно эффективной работы персонала. А это возможно в результате должного внимания за своей работой персонала. Премияльный Фонд вознаграждает работников за счет следующих инструментов: путем предоставления различных материальных средств в дополнение к заработной плате; направления работников предприятия на бесплатный отдых в

соответствии с их потребностями и потребностями; за счет предоставления персоналу предприятия дополнительных ценных призов-подарков в целях обеспечения повышения трудоспособности.

1. *Резервный фонд.*

Любое предприятие, осуществляющее туристическую деятельность, формирует резервный фонд за счет части прибыли, полученной в результате этой деятельности. Основная цель формирования резервного фонда заключается в том, что в ряде случаев предприятие может использовать свой резервный фонд для обеспечения своей непрерывности деятельности, даже если оно не приносит прибыли. На наш взгляд, было бы уместно включить в эти непредвиденные обстоятельства следующее:

- Возмещение ущерба, неожиданно причиненного в результате коммерческой деятельности;
- Обеспечение финансирования некоторых непредвиденных событий, которые могут поставить под угрозу устойчивую работу туристического предприятия;
- Обеспечение финансирования мероприятий по урегулированию обстоятельств непреодолимой силы (форс-мажорных обстоятельств), возникших в результате процесса коммерческой деятельности и могущих помешать деятельности туристического предприятия в будущем.

Финансирование туризма играет важную роль в развитии и устойчивом росте сферы услуг в Азербайджане. Благодаря своему богатому культурному наследию, историческим местам, природной красоте и разнообразным ландшафтам Азербайджан в последние годы стал выдающимся туристическим направлением. В этом эссе будут рассмотрены различные аспекты финансирования туризма и обсуждено его значение в стимулировании роста сектора услуг Азербайджана.

Развитие туристической инфраструктуры:

Одной из основных целей финансирования туризма является развитие и улучшение инфраструктуры, необходимой для удовлетворения потребностей туристов. Сюда входят инвестиции в транспорт, средства размещения, зоны отдыха и сохранение культурного наследия. В Азербайджане значительные инвестиции были сделаны для расширения аэропортов, строительства современных отелей и улучшения транспортных сетей. Эти события способствовали улучшению впечатлений туристов и привлечению большего числа посетителей, тем самым увеличивая доходы страны от туризма.

Маркетинг и продвижение:

Финансирование туризма также играет решающую роль в маркетинге и продвижении Азербайджана как туристического направления. Финансовые ресурсы выделяются на рекламные кампании, международные туристические ярмарки и мероприятия по связям с общественностью, чтобы повысить осведомленность и вызвать интерес среди потенциальных путешественников. Такой активный подход привел к увеличению числа международных туристов и повышению заметности Азербайджана на глобальной туристической карте.

Наращивание потенциала и обучение:

Еще одним важным аспектом финансирования туризма являются инвестиции в развитие человеческого капитала. Предоставляя программы обучения и повышения квалификации, местная рабочая сила приобретает необходимые навыки и знания для удовлетворения растущих потребностей туристического сектора. Это включает в себя обучение гостиничному бизнесу, превосходное обслуживание клиентов, знание языка и культурную осведомленность. Эти усилия не только приводят к улучшению качества услуг, но также расширяют возможности трудоустройства и стимулируют экономический рост в Азербайджане.

Государственно-частное партнерство:

Для обеспечения устойчивого развития туристического сектора финансирование туризма предполагает развитие государственно-частного партнерства. Такое сотрудничество позволяет обмениваться финансовыми ресурсами, опытом и инновациями, тем самым максимизируя выгоды для обеих участвующих сторон. Государственные организации, такие как Совет по туризму Азербайджана, работают вместе с частными инвесторами, владельцами отелей, туроператорами и другими соответствующими заинтересованными сторонами для разработки и реализации стратегических планов, способствующих росту индустрии туризма.

Практика устойчивого туризма:

Финансирование туризма в Азербайджане также направлено на продвижение практики устойчивого туризма. Концепция устойчивого туризма подчеркивает ответственную экологическую и социально-экономическую практику, которая сводит к минимуму негативное воздействие на природные ресурсы и местные сообщества. Инвестиции осуществляются в экологически чистые проекты, системы управления отходами и общественные туристические инициативы. Приняв эту практику, Азербайджан обеспечивает долгосрочную жизнеспособность своей туристической индустрии, сохраняя при этом свои природные и культурные ценности.

Заключение:

Финансирование туризма играет жизненно важную роль в развитии сектора услуг Азербайджана, предлагая значительный вклад в развитие инфраструктуры, маркетинг и продвижение, наращивание потенциала, государственно-частное партнерство и устойчивость. Признавая важность этого сектора и инвестируя в его рост, Азербайджан успешно позиционирует себя как развивающееся международное туристическое направление, привлекающее посетителей со всего мира. Дальнейшие усилия по финансированию туризма будут способствовать дальнейшему укреплению отрасли, созданию возможностей трудоустройства и способствовать экономическому процветанию страны.

Литература

1. Aliyev, R., & Makarenko, M. (2020). Prospects for Financing the Development of the Tourism Industry in Azerbaijan. *Ternopil Economic Journal*, 3(94), 151-158.
2. Clare A. Gunn, Turgut Var. *Tourism Planning: Basics, Concepts, Cases*. Front Cover. Psychology Press, 2002 - Tourism - 442 pages
3. Farajov, V. (2018). Financing Tourism Development in Azerbaijan. *Journal of Tourism, Heritage & Services Marketing*, 4(1), 42-49.
4. Goldner, R. Charles & JR. Brent Ritchie (2012) *Tourism: Principles, Practices, and Philosophies* 11 Edition. John Wiley & Sons: New Jersey
5. Imanov, R., & Jaafar, M. (2017). Financing Tourism Promotion and Marketing in Azerbaijan. *Journal of Economics, Finance and Accounting*, 4(2), 192-201.
6. Mustafayev, M., & Mushfig, R. (2021). The Role of International Financial Institutions in Financing Tourism Development in Azerbaijan. *Scientific Discourses*, 2(1), 93-98.
7. Sidorenko, V., & Ibrahimli, K. (2019). Public-Private Partnership as a Tool for Financing Tourism Infrastructure Development in Azerbaijan. *European Journal of Governance*, 9(1), 131-144.
8. Turizmin əsasları: dərslik / İ. H. Hüseynov, N. T. Əfəndiyeva ; elmi red. N. Rüstəmov ; red. Bakı: Mars-Print NPF, 2007. - 442 s.

Risk Management in the Supply Chain: Building Resilience and Ensuring Continuity

Zahra Samadova Isa

Ph.D, Baku State University

Summary

In today's increasingly globalized world, the supply chain has become an essential aspect of business operations. However, it also brings significant risks that can disrupt continuity and negatively impact organizations. In the article "Risk Management in the Supply Chain: Building Resilience and Ensuring Continuity," the author explores the importance of understanding and managing these risks to build resilience and maintain business continuity. The article begins by highlighting the complexity of modern supply chains and the interconnectedness of global markets. It emphasizes that any disruption in the supply chain can have grave consequences for organizations, leading to financial losses, damaged reputation, and even regulatory compliance issues. Therefore, it is crucial for businesses to identify potential risks and develop effective risk management strategies. The author highlights the need for a systematic approach to risk management in the supply chain. This involves identifying and assessing various risks, such as natural disasters, geopolitical conflicts, supplier disruptions, and cyber-attacks. By understanding these risks, businesses can proactively plan and implement appropriate risk mitigation measures.

Key words: risk management, supply chain, global markets, strategy

Управление рисками в цепочке поставок: повышение устойчивости и обеспечение непрерывности

Захра Самадова Иса

доктор философии, Бакинский Государственный Университет

Резюме

В современном мире, который становится все более глобализованным, цепочка поставок стала важным аспектом бизнес-операций. Однако это также несет в себе значительные риски, которые могут нарушить непрерывность и негативно повлиять на организацию. В статье «Управление рисками в цепочке поставок: повышение устойчивости и обеспечение непрерывности» автор исследует важность понимания и управления этими рисками для повышения устойчивости и поддержания непрерывности бизнеса. Статья начинается с освещения сложности современных цепочек поставок и взаимосвязанности глобальных рынков. В нем подчеркивается, что любой сбой в цепочке поставок может иметь серьезные последствия для организаций, приводя к финансовым потерям, испорченной репутации и даже проблемам с соблюдением нормативных требований. Поэтому для бизнеса крайне важно выявлять потенциальные риски и разрабатывать эффективные стратегии управления рисками. Автор подчеркивает необходимость системного подхода к управлению рисками в цепочке поставок. Это включает в себя выявление и оценку различных рисков, таких как стихийные бедствия, геополитические конфликты, сбои в работе поставщиков и кибератаки. Понимая эти риски, предприятия могут заранее планировать и реализовывать соответствующие меры по снижению рисков.

Ключевые слова: управление рисками, цепочка поставок, глобальные рынки, стратегия.

Introduction

In today's rapidly evolving business landscape, effective supply chain management has become increasingly critical. Amidst various uncertainties and vulnerabilities, organizations must take proactive measures to mitigate risks within their supply chains. Risk management in the supply chain is a comprehensive approach that enables businesses to identify, assess, and address potential disruptions, ensuring continuity and resilience [1, p.24].

In today's interconnected global economy, supply chains are susceptible to a wide range of risks, including natural disasters, geopolitical conflicts, economic downturns, and unexpected disruptions like the COVID-19 pandemic. Effective risk management in the supply chain is essential to ensure the continuity of operations and minimize the impact of these disruptions. Key points related to risk management in the supply chain include:

- Risk Identification,
- Risk Assessment,
- Mitigation Strategies,
- Supply Chain Resilience,
- Technology and Data,
- Collaboration and Communication,
- Continuous Improvement,
- Regulatory Compliance [6, p.90].

In summary, "Risk Management in the Supply Chain: Building Resilience and Ensuring Continuity" is about proactively identifying and addressing the various risks that can disrupt the supply chain. By implementing effective risk management practices, organizations can enhance their ability to withstand disruptions, maintain operational continuity, and ultimately, deliver products and services to customers reliably.

Identification and Assessment of Risks:

Identification and assessment of risks play a vital role in various aspects of life, ranging from personal decision-making to business strategies. It is essential to understand the potential risks involved in any situation to mitigate their impact and make well-informed decisions. Identification of risks is the first step in managing them effectively. By identifying potential risks, individuals and organizations can anticipate and prepare for adverse events. Risks can be categorized into various types, such as financial, operational, strategic, and compliance-related risks. Within each category, there can be further subcategories to capture all possible risk factors. For instance, financial risks may include market volatility, credit default, and currency fluctuations, among others.

To identify risks, it is crucial to conduct a systematic analysis of the internal and external environment. Internal factors involve examining the organization's resources, processes, and vulnerabilities, while external factors consider political, economic, social, technological, and legal factors that might have an impact. Additionally, gathering insights from stakeholders, industry experts, and historical data can provide valuable inputs for risk identification [2, p.39].

Once risks are identified, the next step is to assess their potential impact and likelihood of occurrence. Assessing risks involves determining the severity of the impact and the probability of such an event happening. The severity of impact can range from minor inconveniences to major crises, while the probability can be low, moderate, or high. By assigning a rating to both impact and probability for each identified risk, a risk matrix can be created to prioritize risks based on their significance [7, p.102].

Risk assessment also involves understanding the interdependencies between risks. One risk may trigger other risks, leading to a chain reaction of adverse events. For instance, a natural disaster can disrupt supply chains, leading to inventory shortages, which in turn may result in

reduced sales and customer dissatisfaction. Recognizing such interdependencies helps in proactively managing risks by developing contingency plans and building resilience.

To ensure effective risk management, organizations need to adopt robust strategies. One commonly used approach is the risk mitigation strategy, where preventive measures are implemented to reduce the likelihood and impact of risks. For instance, proper fire safety measures, such as installing smoke detectors and fire extinguishers, can mitigate the risk of a fire hazard in a commercial building [3, p.78].

Transferring risks to third parties through insurance is another popular strategy. By transferring risks to insurance companies, organizations can minimize the financial impact of adverse events. For example, a business owner can purchase property insurance to protect against damages caused by natural disasters or theft.

In some cases, risks may be inherent to the business or situation and cannot be completely eliminated or transferred. In such scenarios, risk acceptance becomes the preferred strategy. However, acceptable risks still require monitoring and contingency plans to address potential negative outcomes.

Regular review and evaluation of risks are essential to ensure ongoing effectiveness of risk management. As the external environment changes, new risks may emerge, while existing risks may evolve. By continually assessing and adapting risk management strategies, individuals and organizations can stay ahead of potential threats and take proactive measures [8, p.65].

By hence, identification and assessment of risks are crucial steps in effective risk management. By understanding potential risks, individuals and organizations can develop robust strategies to mitigate their impact. This involves systematically identifying risks, assessing their severity and likelihood, understanding interdependencies, and adopting appropriate risk management strategies. Regular review and evaluation of risks are also necessary to adapt to changing circumstances. By proactively managing risks, individuals and organizations can navigate uncertainties with confidence and ensure a secure future.

Mitigation Strategies:

Having identified and assessed the risks, organizations can then implement appropriate mitigation strategies to minimize potential disruptions. These strategies may include [4, p.53]:

1. **Diversification of Suppliers:** Relying on a single supplier increases the vulnerability of the supply chain. By diversifying the supplier base, businesses can reduce the risk of a single point of failure. This can be achieved through dual sourcing, establishing partnerships with multiple suppliers, or nurturing long-term relationships with alternate suppliers.

2. **Demand Forecasting and Inventory Management:** Accurate demand forecasting and proper inventory management can help businesses maintain optimum stock levels. This reduces the risk of stockouts during unexpected disruptions. Advanced analytics, machine learning, and collaborative planning tools can provide valuable insights for more accurate demand forecasting.

3. **Supply Chain Visibility and Information Sharing:** Enhanced supply chain visibility allows organizations to promptly identify and respond to potential disruptions. Real-time access to data and information sharing with partners and suppliers can enable faster decision-making and proactive risk mitigation. Technologies such as Internet of Things (IoT), blockchain, and cloud computing can be leveraged to achieve greater supply chain visibility.

4. **Continuity Planning and Business Continuity Management (BCM):** Developing continuity plans and implementing Business Continuity Management practices enables organizations to effectively respond to and recover from disruptive events. These plans should include processes for alternate sourcing, logistics rerouting, and cross-training of staff. Regular testing and updating of the plans are essential to ensure their effectiveness.

5. **Collaborative Relationships and Risk Sharing:** Establishing collaborative relationships with suppliers, customers, and other stakeholders can facilitate risk sharing and ensure collective

resilience. This can involve the development of mutual risk assessment frameworks, sharing best practices, and jointly investing in risk mitigation measures. Strong relationships built on trust and collaboration can create a network that collectively manages risks [9, p.81].

Continuous Improvement and Monitoring:

Supply chain risk management is an ongoing process that requires continuous improvement and monitoring. Regular review of risk mitigation strategies, benchmarking against industry standards, and incorporating feedback from stakeholders can help identify areas of improvement. By staying updated with market trends, emerging risks, and technological advancements, organizations can proactively adapt their risk management strategies for maintaining supply chain resilience [5, p.88].

Continuous improvement and monitoring play a crucial role in the supply chain management of any organization. In today's highly competitive and dynamic business environment, it is imperative for companies to continuously improve and monitor their supply chain processes in order to stay competitive, meet customer demands, reduce costs, and maximize overall efficiency.

Continuous improvement in supply chain management involves ongoing efforts to optimize and enhance various aspects of the supply chain, such as sourcing, procurement, production, storage, transportation, and distribution. It goes beyond just making incremental changes; it involves identifying opportunities for transformational improvements and implementing them to achieve better outcomes.

One of the key benefits of continuous improvement in the supply chain is increased efficiency. By continually reviewing and analyzing supply chain processes, organizations can identify bottlenecks, eliminate wasteful activities, streamline operations, and improve overall productivity. For example, implementing lean manufacturing principles can help in minimizing inventory carrying costs, reducing lead times, and improving order fulfillment rates.

Moreover, continuous improvement also facilitates better customer service. By regularly monitoring customer feedback and reviewing performance metrics, companies can identify areas for improvement and take corrective actions. This helps in aligning supply chain activities with customer expectations, resulting in improved satisfaction levels and strengthened customer relationships. For instance, by tracking delivery performance, organizations can identify and rectify any delays or errors, ensuring timely and accurate deliveries.

In addition to continuous improvement, monitoring is equally important in supply chain management. Monitoring involves the collection and analysis of data related to key performance indicators (KPIs) to evaluate the performance of the supply chain and measure the effectiveness of implemented improvements. By monitoring KPIs such as on-time delivery, inventory turnover, order accuracy, and cost per unit, organizations can gain valuable insights into the efficiency and effectiveness of their supply chain operations [2, p.55].

By closely monitoring supply chain performance, organizations can identify trends, spot any issues or inefficiencies, and make data-driven decisions. For example, by monitoring inventory levels and demand patterns, companies can optimize their inventory management strategies, prevent stockouts, and reduce carrying costs. Similarly, monitoring transportation activities can help in identifying potential optimization opportunities and reducing shipping costs.

Furthermore, monitoring enables organizations to detect and respond to supply chain disruptions in a timely manner. By continuously monitoring supply chain activities and events, companies can identify any potential risks or disruptions, such as delays, quality issues, or supplier failures. This helps in implementing proactive measures to mitigate the impact of such disruptions and maintain continuity of supply. For instance, by monitoring weather conditions and traffic patterns, organizations can adjust delivery routes accordingly to minimize delays and ensure timely deliveries [8, p.33].

To conclude, continuous improvement and monitoring are critical components of effective supply chain management. They enable organizations to identify and implement process enhancements, enhance customer service, improve operational efficiency, and mitigate risks. By embracing continuous improvement and monitoring practices, companies can stay ahead of the competition, adapt to changing market dynamics, and achieve long-term success in today's complex business landscape.

Conclusion

Risk management in the supply chain is crucial for organizations to navigate the uncertainties and vulnerabilities inherent in today's global marketplace. By identifying and assessing risks, implementing effective mitigation strategies, and continuously improving their approach, businesses can build resilience and ensure the continuity of their supply chains. A proactive and integrated risk management approach enables organizations to respond swiftly to disruptions, protect their reputation, minimize financial losses, and maintain customer satisfaction.

References

1. Waters, D. (2007). "Supply Chain Risk Management: Vulnerability and Resilience in Logistics." Kogan Page.
2. Tang, O., & Musa, P. (2011). "Supply chain risk management: Review, classification and future research directions." *International Journal of Production Economics*, 133(1), 25-34.
3. Zsidisin, G. A., & Ritchie, B. (2009). "Supply chain risk: A handbook of assessment, management, and performance." Springer.
4. Manuj, I., & Mentzer, J. T. (2008). "Global supply chain risk management strategies." *International Journal of Physical Distribution & Logistics Management*, 38(3), 192-223.
5. Sheffi, Y. (2017). "The Resilient Enterprise: Overcoming Vulnerability for Competitive Advantage." MIT Press.
6. Christopher, M., & Peck, H. (2004). "Building the resilient supply chain." *The International Journal of Logistics Management*, 15(2), 1-14.
7. Blackhurst, J., Dunn, K. S., & Craighead, C. W. (2011). "An empirically derived agenda of critical research issues for managing supply-chain disruptions." *International Journal of Production Research*, 49(18), 5395-5419.
8. Chopra, S., & Sodhi, M. S. (2004). "Managing risk to avoid supply-chain breakdown." *MIT Sloan Management Review*, 46(1), 53-61.
9. Manners-Bell, J. (2017). "Supply Chain Risk: Understanding Emerging Threats to Global Supply Chains." Kogan Page.

THE MAIN DIRECTIONS OF PROVIDING SUSTAINABLE ECONOMIC DEVELOPMENT IN THE TERRITORIES LIBERATED FROM OCCUPATION

Konul Gocayeva

Summary: Under the leadership of Commander-in-Chief, President İlham Aliyev, the Azerbaijani Army showed its power to the whole world. Our territorial integrity was ensured by our glorious victory. The 44-day war for the liberation of Karabakh, which has been under the occupation of Armenia for nearly 30 years, caused great resonance not only in this region, but throughout the world.

The implementation of large-scale measures in the direction of the restoration of territories freed from occupation, ensuring their long-term development, creating the necessary infrastructure and returning the population to their native lands will make an important contribution to the economy of Azerbaijan in the coming years. It is very important to effectively use the rich economic potential of these areas to ensure sustainable economic development of our country.

The article talks about the main directions of sustainable economic development of territories freed from occupation.

Key words: socio-economic infrastructure, macroeconomic stability, economic dividend, investment, entrepreneurship, employment.

It was the Great Leader who created the foundation for the formation of the political and international legal foundations of the magnificent Karabakh victory. The Karabakh problem was resolved as a result of purposeful activity of İlham Aliyev, who declared the national leader Heydar Aliyev's wise, far-sighted and flexible, domestic and foreign policy as his political course, a worthy follower of the Heydar Aliyev school of administration. It is no coincidence that the great leader Heydar Aliyev said: "I believe that with your help and support, İlham Aliyev will be able to finish the fateful issues, plans and works that I could not finish. I believe in him as much as myself and have hopes for his future."

The liberation of our occupied regions from the hands of the enemy once again proved to the world how strong our state is, both politically and socio-economically.

The fact that Azerbaijan is among the countries that glorify the sustainable development model in the economy has determined new development prospects in the economy. In the regions that have already been freed from occupation, the restoration of the functioning of the important administrative structures of the state, the involvement of tourism and water resources in Sugovushan, the road-infrastructure works started in these areas, the use of water reservoirs in the territory of Khudafar for the purposes of hydropower and melioration are coming up as purely economic measures. The revival of the economy of Karabakh suggests that in the near future this land will again become a developing cultural center of the entire South Caucasus, a popular tourist destination.

In 2020, Azerbaijan engraved the words "Azerbaijan" and "victory" in world history. The glorious victory of the 44-day war once again showed the power and politics of Azerbaijan to the world. Ensuring the territorial integrity of Azerbaijan occupies a great place in the centuries-old

history of our nation. The territories freed from occupation as a result of the victory will give a great impetus to the development of our country. Thus, benefiting from the economic potential of those areas and the opportunities of international and regional transport-logistics corridors will add strength to the power of Azerbaijan.

Currently, the main goal ahead is the restoration of territories freed from occupation. Reconstruction of a large area of 10,000 square km is a priority in order to provide decent living conditions for more than one million former internally displaced persons. The Great Return to territories freed from occupation was reflected in "Azerbaijan 2030: National Priorities for socio-economic development" approved by the Decree of the President of the Republic of Azerbaijan dated February 2, 2021, and this issue is one of the five national priorities for the country's socio-economic development in the next decade. being identified as one of them is a clear example of how much importance the Azerbaijan state attaches to this work. ("Azerbaijan 2030: National Priorities for socio-economic development", Baku 2021).

2. The Great Return

Ensuring the return of the population to the territories freed from occupation in order to accelerate economic growth is the basis of Azerbaijan's new development highway. This Great Return will be a bridge in the sustainable settlement of our citizens in the territories freed from occupation and the joining of these territories to the economic activity of the country. This region will become one of the most prosperous corners of the country by ensuring the safe living of the people returning to the liberated territories. In order to restore decent living, which is the basis of modern life, construction must be achieved in all areas. This should be done on the basis of incentives and within the framework of the development of public-private partnerships. Only in such conditions is it possible to ensure the full integration of the liberated territories into the great future of Azerbaijan.

3. Construction works carried out in Karabakh

Restoration works have already started on the freed lands. Approximately 6.5 billion manats have been allocated from the state budget in 2021 and 2022 for construction works in Karabakh. As a result of the construction works, the relocation of the first internally displaced families to Agalı village of Zangilan district was ensured in 2022. In order to ensure the "Great Return", the Action Plan on the creation of the "green energy" zone in the territories freed from occupation in 2022-2026 was approved. (www.stat.gov.az).

Gülebird Hydroelectric Station, 7 semi-stations, roads leading to Sugovushan and Talys have been put into use, huge and magnificent projects such as Zafar road, Fuzuli International Airport have been completed. Shusha's water and electricity supply was ensured, the house-museum of Bulbul, the mausoleum of Molla Panah Vagif, the statue of Uzeyir Hajibeyli, the opening of Kharibbulbul and Karabakh hotels were written down in history as a significant day. Fuzuli, Hadrut Digital Substation and Control Centers, which were laid by President Ilham Aliyev and First Lady Mehriban Aliyeva in October 2022, as well as Shusha Digital Control Center, which was put into operation on May 10, 2022, will further the reconstruction process in Karabakh, which was freed from occupation. is a clear example that it will accelerate. (www.virtualkarabakh.az).

4. Activities of the Karabakh Revival Fund

According to the Decree of the President of the Republic of Azerbaijan Ilham Aliyev dated January 4, 2021, in order to ensure a modern and decent life for sustainable settlement in the territories freed from occupation, to carry out construction-restoration and improvement works

in all areas, as well as to support safe living, efficient activity and continuous growth of well-being "Karabakh Revival Fund" was established. This fund provides financial support and attraction of investments for the restoration and reconstruction of the liberated territories of the Republic of Azerbaijan, as well as the transformation into a stable economy and a region with high prosperity, which ensures the development of public-private partnership in this field, as well as within and outside the country. outside the public, which carries out the necessary promotional activities, is a legal entity.

One of the important issues for economic development in the liberated territories is the identification of potential areas of comparative advantage in the region. When determining both domestic and international advantages, the economic resources of the liberated territories, traditional employment before the occupation, and the level of habit and professionalism of the repatriates should be taken into account. Also, the framework of interaction in the production-processing-sale chain between the post-conflict areas and other regions of the country should be evaluated. In general, it is intended to determine the areas of comparative advantage for the region based on scientific research using the latest digital methodologies. It is very necessary to use local and international experience in the development of liberated territories.

5. The economic potential of Karabakh

Our liberated territories have great economic potential and natural resources. These areas are part of the state policy in terms of attracting local and foreign investments and providing employment to the population.

There are favorable conditions for the development of agriculture - cattle breeding and farming in the areas with fertile lands, which are the basis of the economic potential of the Karabakh region. The agricultural production and export potential of these areas is quite large. Provision of large and small animals to the population living in the liberated territories, creation of beekeeping farms, re-specification of specialization according to regions are the steps to be taken in terms of the development of the agricultural sector. The development of agriculture in those areas will, first of all, contribute to ensuring the country's food security, employment, attract new investments and use water resources. This process will lead to an increase in the export of non-oil products, will increase crop turnover, and will improve the supply of farm water to agricultural fields. The development of areas with significant potential in terms of agriculture will play a major role in strengthening Azerbaijan economically in the region and ensuring its economic security.

The economic potential of the lands freed from occupation is multi-spectral, covering various fields of agriculture, industry and tourism. The lands freed from occupation have great potential for the development of viticulture, tobacco, cotton, cocoon, fruit and vegetable, horticulture and animal husbandry. Maize, peas and grapes are characteristic crops of the region. As it can be seen, the natural resources and agricultural potential of our territories freed from occupation can create conditions for the faster recovery of the economy in the region. The share of agriculture and tourism sector in the gross domestic product of Azerbaijan is high. Both sectors have a considerable impact on employment. From this point of view, there is a great perspective in the direction of ensuring the employment of the able-bodied population. (Ibrahimov, 2016).

6. "Azerbaijan 2030: National Priorities for socio-economic development" Program

Azerbaijan is among the countries that glorify the sustainable development model in terms of economy. Azerbaijan's victory has defined new development prospects in the economy. The expansion of economic progress ensures the development of the country and the welfare of the people. The next initiative that serves the development of our state and the welfare of the society

was the approval of the program called "Azerbaijan 2030: National Priorities for socio-economic development", which is the embodiment of strategic planning in the management of the state. The program we mentioned is a strategic management method that serves to reduce risks, rapid development of areas, as well as determination of sectoral priorities in directions, and at the same time determines the future development landscape of our country.

7. Attracting local and foreign investors

One of the main goals in the new era is to attract investments to our liberated territories. The President of the Republic of Azerbaijan sends a message to partner countries and companies in all the conferences and meetings he participates in, inviting them to invest in Karabakh. In the period before the Patriotic War, Azerbaijan was considered one of the most attractive places for all investors. Today, there are better opportunities for investors. Investing in any infrastructure in our liberated territories can yield huge economic dividends.

Raw materials for the production of construction materials are available in almost all of our liberated areas. All this will allow those natural resources to be used, especially in the construction of industrial enterprises. This will ensure the creation of new jobs and the growth of the gross domestic product in Azerbaijan. They are also important in terms of production growth in the non-oil sector.

8. Directions for using mineral resources

In addition, there are 155 different types of mineral deposits in the liberated territories, including 5 gold, 6 mercury, 2 copper, one lead and zinc, 19 facing stone, 10 sawstone, 4 cement raw materials, 13 different types of building stones, one soda production raw materials for, 21 pumice and volcanic ash, 10 clay, 9 sand-gravel, 5 construction sand, 9 gypsum, anhydride and tar, one perlite, one obsidian, 3 vermiculite, 14 deposits of nonferrous and ornamental stones (agate, jade, onyx, jade, pefritoid, etc.) are located. The mentioned minerals are the factors that show the economic importance of the Karabakh region.

The processing of natural resources and minerals promises a great perspective in terms of investments in these areas. In recent years, gold occupies an important place in Azerbaijan's non-oil exports. Both the rise in the price of gold in the world markets and the fact that the companies in this field have modern production technologies suggest that the exploitation of gold deposits in the liberated territories will make a great contribution to the economy of Azerbaijan in the coming years.

These regions are favorable in terms of raw material base and processing industry production. Therefore, the development of Nagorno-Karabakh and its surrounding Lachin, Kalbajar, Gubadli, Zangilan, Jabrayil, Agdam Fuzuli administrative regions requires a comprehensive approach that will cover numerous and diverse sectors.

By bringing new natural resources into circulation, Azerbaijan has the potential to ensure the development of the western region, the rise of the mining industry, as well as the metallurgical complex. The development of metallurgy will speed up the development of the military industry along with a number of industries in Azerbaijan.

We can evaluate the industrial potential of the region in 4 directions: rich water supply, electricity, industrial recreation opportunities and processing of rich minerals. (Ibrahimov & Karimov, 2017).

The region is also favorable for the development of processing and food industry. Our lands freed from occupation are rich in mineral and thermal water sources. These resources will be used for drinking water, reclamation, and electricity production.

As can be seen from our research, the industrial and agricultural potential of Nagorno-Karabakh and its surrounding Lachin, Kalbajar, Gubadli, Zangilan, Jabrayil, Agdam Fuzuli administrative regions is wide. The base of raw materials and natural resources is quite large. All this suggests that the economy of that region will develop rapidly after the recovery process.

9. Development of tourism economy in Karabakh

After ensuring security in Karabakh, renewing infrastructure and resolving demographic issues, it seems realistic to implement complex projects for the organization of tourism. On this platform, the tourism potential of Nagorno-Karabakh should be developed, natural and anthropogenic tourism resources should be reviewed, thanks to the joint efforts of the state, private sector and scientists. Since Karabakh is mainly a mountainous area, mountaineering and mountaineering tourism can be specially mentioned. Karabakh is a region that will develop as an ecotourism and ethnotourism zone due to its natural richness, antiquity, and historical and cultural monuments. It will be a region that tourists will visit as one of the most beautiful tourist destinations in the world. In addition to the development of tourism in Karabakh, the restoration of the monuments forged by Armenians to their history is one of the important issues waiting to be resolved. (Soltanova, 2015).

The new economic value that will be created in the territories freed from occupation will many times exceed the financial costs of the Azerbaijani state. The restoration of these areas will create a large number of new jobs. Thus, the implementation of new infrastructure projects will have a positive effect on the employment of our citizens. The development of the economy will create the basis for the opening of new jobs. The victory of our victorious army will stimulate the growth of the non-oil sector and the further prosperity of Azerbaijan's economy.

Determination of the National Priorities for the country's socio-economic development for the next 10 years by President Ilham Aliyev lays the foundation for achieving unprecedented results in this field. The achieved high socio-economic indicators and great political achievements, formed national and multicultural values create confidence that the power of the state will increase even more in the coming years.

The established National Priorities unequivocally emphasize the successful connection of society, business and the state, which is necessary for ensuring the long-term sustainable development of Azerbaijan.

The envisaged directions will bring the socio-economic development of the country to a new, qualitatively higher stage in the next decade.

Legal, organizational-economic, technical-technological, social, ecological, etc. complex character based on a systematic approach, which meets the requirements of the modern era, reflects advanced international experience, for the organization, management and development of entrepreneurship in the regions freed from occupation. development and implementation of special measures is required. In other words, priority should be given to a conceptual approach to the restoration of territories. 9. Development of tourism economy in Karabakh

After ensuring security in Karabakh, renewing infrastructure and resolving demographic issues, it seems realistic to implement complex projects for the organization of tourism. On this platform, the tourism potential of Nagorno-Karabakh should be developed, natural and anthropogenic tourism resources should be reviewed, thanks to the joint efforts of the state, private sector and scientists. Since Karabakh is mainly a mountainous area, mountaineering and mountaineering tourism can be specially mentioned. Karabakh is a region that will develop as an

ecotourism and ethnotourism zone due to its natural richness, antiquity, and historical and cultural monuments. It will be a region that tourists will visit as one of the most beautiful tourist destinations in the world. In addition to the development of tourism in Karabakh, the restoration of the monuments forged by Armenians to their history is one of the important issues waiting to be resolved. (Soltanova, 2015).

The new economic value that will be created in the territories freed from occupation will many times exceed the financial costs of the Azerbaijani state. The restoration of these areas will create a large number of new jobs. Thus, the implementation of new infrastructure projects will have a positive effect on the employment of our citizens. The development of the economy will create the basis for the opening of new jobs. The victory of our victorious army will stimulate the growth of the non-oil sector and the further prosperity of Azerbaijan's economy.

Determination of the National Priorities for the country's socio-economic development for the next 10 years by President Ilham Aliyev lays the foundation for achieving unprecedented results in this field. The achieved high socio-economic indicators and great political achievements, formed national and multicultural values create confidence that the power of the state will increase even more in the coming years.

The established National Priorities unequivocally emphasize the successful connection of society, business and the state, which is necessary for ensuring the long-term sustainable development of Azerbaijan.

The envisaged directions will bring the socio-economic development of the country to a new, qualitatively higher stage in the next decade. Legal, organizational-economic, technical-technological, social, ecological, etc. complex character based on a systematic approach, which meets the requirements of the modern era, reflects advanced international experience, for the organization, management and development of entrepreneurship in the regions freed from occupation. development and implementation of special measures is required. In other words, priority should be given to a conceptual approach to the restoration of territories.

10. Karabakh in the "state program for socio-economic development of regions in 2019-2023"

"The state program for the socio-economic development of regions in 2019-2023" includes the territories freed from occupation, along with other cities and regions of the Republic. The implementation of the program will create the basis for the further acceleration of the development of the area. The main goal of the program, along with other regions, is to ensure the sustainable and balanced development of territories freed from occupation, including the formation of an ecological security system that ensures a competitive economy based on the principles of sustainable development, social welfare that meets high standards, efficient use of natural resources, and reliable protection of the environment. is to create an enabling environment. ("State Program on the socio-economic development of regions in 2019-2023").

In general, the restoration of our liberated territories based on a unified concept will lead to the expansion of the country's economic potential. The reintegration of these areas will have a positive effect on the country's economy and will lead to economic growth. As the reconstruction process of Karabakh is multifaceted, new opportunities will arise for the development of many sectors of the country's economy, not only in those areas.

In short, the lands of Karabakh freed from occupation under the leadership of the President of the Republic of Azerbaijan, Commander-in-Chief Ilham Aliyev mean new potential economic opportunities and economic power for the economy of Azerbaijan in the near future. The restoration of the economy in Karabakh and its reconstruction at the level of modern requirements will add strength to our economic power, and our economy will increase and grow at a noticeable level. According to its economic indicators, Azerbaijan will strengthen its role as

the leading state of the region, the reputation of our country on the world scale will increase, the competitiveness of our economy, socio-economic indicators and the standard of living of the population as a whole will also increase.

Reference list

1. "Azerbaijan 2030: National Priorities for socio-economic development" approved by the Decree of the President of the Republic of Azerbaijan dated February 2, 2021
2. "State Program on the socio-economic development of regions in 2019-2023"
3. Habiba Soltonava. Tourism and its development in the Republic of Azerbaijan, Baku, 2015.
4. Islam Ibrahimov. Economy of the agrarian field, (Monograph), Baku 2016.
5. Islam Ibrahimov, Karim Karimov. Investment and innovation activity in industry, (Textbook), Baku 2017.
6. www.stat.gov.az
7. www.virtualkarabakh.az.

Agricultural Sciences

Productive indicators of waterfowl in the northern region of Kazakhstan

Shamshidin Alzhan Smailovich

Candidate of Agricultural Sciences, Vice-Rector for Science of Non-profit limited company "West Kazakhstan Agrarian and Technical University named after Zhangir Khan" .

Temirbekova Gulzhan Ayazovna

Candidate of Agricultural Sciences, Head of the Poultry Laboratory of "North Kazakhstan Research Institute of Agriculture" LLC.

Nyurenberg Assem Sagandykovna

Master of Animal Sciences, Junior Researcher of the Poultry Laboratory of "North Kazakhstan Research Institute of Agriculture" LLC.

Bekmaganbetov Nurumbet Esimovich

Animal Sciences, zoo engineer, senior researcher at the animal livestock department of "North Kazakhstan Research Institute of Agriculture" LLC.

Relevance. In providing the country's population with diverse and high-quality livestock products, a special place should be given to the production of meat from waterfowl species of poultry, as one of the sources of biologically complete protein in human nutrition. The creation of effective breeding programs and the breeding of new domestic breeds, lines, and crosses of waterfowl species of birds with breeding and productive qualities at the level of the best world samples, possibly not only due to the transfer of genetic material but also with the wide use of the existing domestic gene pool of birds.

The challenge of agricultural poultry conservation has faced scientists in the field over the years. It was especially acute with the transfer of poultry production to an industrial basis, which led to the creation of highly productive specialized lines and crosses of agricultural poultry for the production of eggs and meat from limited genetic material [1,2,3].

Keywords: poultry farming, waterfowl, line, cross, selection, productivity, livestock safety, methods, techniques, selection parameters, ducks.

On the basis of "Bishkul Poultry Farm" LLC, the hatching egg was collected in the breeder from the laid lines, and a second laying was carried out (16.03.2022).

The progenitor herd was formed from the daily ducklings of the "Bishkul Color" cross and the "Medeo" cross from the laid incubation eggs, 100 selection nests (60 nests of the maternal line and 40 nests of the paternal line) (conclusion March 2021) ratio in nests 1:4.

Individual weighing of ducks and drakes before the breeding season (500 heads) was carried out.

The average weight of a male is 3.4 kg to obtain young paternal lineage. To form the maternal line, the drakes of less weight were chosen - 2.9 kg.

The growth and development of ducklings from the breeding building was studied, by weekly weighing from daily to 7-week age. The average weight of young animals in ducks was

2581.4 kg, and in the spleen, 2792.3 kg, Low weight gain in the breeder's body is explained by the fact that the bird is in the breeder of the first year of life.

A blood test was performed (60 heads), and biochemical blood parameters from each line (paternal line, maternal line) were studied. The results of the biochemical blood test of the ducks were within the normal range in all groups, which indicates that the level of protein nutrition corresponds to the biological needs of the body of the studied bird.

Egg production per carrier for 40 weeks of the cycle was 185 eggs on the maternal side and 190 eggs on the paternal side; the average weight of eggs on the maternal side is 69.7 g and on the paternal side 65.3 g; yield of incubation eggs 96% and 95%, respectively; maternal hatching eggs yield 93% and paternal eggs yield 95%; fertilization in the range of 86-87% in both lines; hatching 70% on the maternal side and 66% on the paternal side; the safety of daily ducklings 85% and 70%, respectively, along the lines; exit ducklings on the bed 140 heads on the maternal and 130 heads on the paternal lines.

References:

1. Моисеева И. Г. и др. Исследование генофонда сельскохозяйственных кур по биохимическим маркерам / Научно-технический прогресс в племенном и промышленном птицеводстве // Тез. докл. - Самарканд. - 1983. - С.31-32.
2. Гадиев Р.Р. Резервы промышленного птицеводства России / Р.Р. Гадиев.- Сергиев – Посад-Уфа: Изд-во БГАУ, 2002. - 325с.
3. Алтухов Ю.П. Генетические процессы в популяциях / Ю.П. Алтухов. – М.: ИКЦ «Академкнига», 2003. – 431с.
4. Кочиш И.И. Птицеводство / И.И. Кочиш, М.Г. Петраш, С.Б. Смирнов. – М.: Колос, 2003. - 407 с.
5. Y. Chen, C. Aorigele, F. Yan, Y. Li, P. Cheng, Z. Qi. Effect of production system on welfare traits, growth performance and meat quality of ducks South African Journal of Animal Science, 45 (2015), pp. 173-179
6. O. Adeola Recent advances in duck nutrition Proceedings of the 24th Western Nutrition Conference, 10–11 September 2003, Winnipeg, Manitoba, Canada (2003), pp. 191-204.
4. Альпейсов Ш.А. Утководство Казахстана: монография / Ш.А. Альпейсов, К.А. Молдажанов.-А: Бастау, 2002.-179 с.
7. Альпейсов Ш.А. Инструкция по бонитировке сельскохозяйственной птицы: метод.рекоменд./ Альпейсов Ш.А., Ильницкая И.В., Серикбаева Ш.К. – Алматы: Каз.НИИП, 2001.-10с.
8. M.S. Ali, G.H. Kang, H.S. Yang, J.Y. Jeong, Y.H. Hwang, G.B. Park, S.T. Joo A comparison of meat characteristics between duck and chicken breast Asian-Australasian Journal of Animal Sciences, 20 (2007), pp. 1002-1006
9. BERNACKI, Z., M. ADAMSKI, J. KUZNIACKA, D. KOKOSZYNSKI, 2006: Comparison of meat traits in ducks of different origin to 9 weeks of age. Roczn. Nauk. Zoot. 33, 41-57.
10. KOKOSZYNSKI, D, 2011: Evaluation of meat traits in commercial crossbreds of Pekin type ducks. UTP Bydgoszcz (Poland), 1-113.

Philological Sciences

Types of occasionalisms in Brandon Sanderson's "The Stormlight archive"

Алтынбеков Азат Муратович

докторант

Altynbekov Azat Muratovich

PhD Student, Karaganda Buketov University

Мажитаева Шара

д.ф.н., профессор, Карагандинский Университет им. академика Е.А. Букетова, Караганда, Казахстан

Shara Mazhitaeva

Какжанова Фазира Айдархановна

к.ф.н., профессор, Карагандинский Университет им. академика Е.А. Букетова, Караганда, Казахстан

Kakzhanova Fazira Aidarhanovna

It is impossible to keep track of the current state of a modern language, especially English, the language spoken by half the world. It is worth noting that in addition to the appearance of new words, language develops at the phonetic, lexical, syntactic and semantic levels. In this way, language manifests itself as an instrument of cognitive interpretation, reflection on the surrounding world. And the more the composition of the language is replenished with new lexical units, the more developed are the various spheres of our life, because the cultural wealth of each nation is measured and manifested by its language.

In our study we will talk about occasionalisms. It is generally believed that this term was introduced in the 60-70s of the XX century by E. Khanpira, describing it in this way: "an occasional word (lexical occasionalism), or as it is often written, an author's neologism, is a word formed by an unproductive, unproductive, or even unknown to the language (occasional) word-formation model" [1].

F. de Saussure in his time interested the scientific world by introducing the distinction between the concepts of "language" (langue) and "speech" (parole), where the occasional word in turn represents the completion of the analogy that is found in speech. This "new formation" is the result of the creativity of an individual - the author, which, in turn, makes it possible to reveal the meaning of this new word only in connection with its context [2; 266]. In other words, he is the originator of the trend of distinguishing "neologism - a fact of language; occasionalism - a fact of speech".

The Handbook of Linguistic Terms by D.E. Rosenthal and M.A. Telenkov defines occasionalism as "a word formed by an unproductive model, used only in the conditions of a specific context", and the concept "occasional" as not corresponding to the generally accepted usage, having an individual character, conditioned by a specific context [3; 157].

N.I. Feldman (occasionalisms are not part of the vocabulary of the language), E. Khanpir (occasionalisms are unproductive), V.V. Eliseeva (occasionalisms are relevant only within the

context), F. de Saussure (occasionalism belongs to the author). Eliseeva (occasionalisms are relevant only within the context), F. de Saussure (occasionalism belongs to the author).

At the moment, Akhmanova's dictionary has established this definition: "non-usual, not corresponding to common usage, characterized by individual taste, conditioned by the specific context of use" [4; 284].

Д. Crystal defines "nonce-words" (occasionalisms) as a lexeme created for temporary use, for solving an instant communicative task [5; 132]. "Nonce-words" are not part of the vocabulary of native speakers, thus do not belong to anyone. Hence the name - "no one('s)".

In turn, Popova T.V. argues that occasionalisms are a deviation from the norm, and, as a rule, fulfill a special connotative function, "carry aesthetic information" [6; 34]. For the same reason, occasionalisms are an ideal tool for expressing creative thought in artistic texts and in media texts, especially in the headlines of articles. That is, occasionalisms are the main tool for expressing the author's thought and originality, conveying the emotionality of his text.

Invented for use at the moment of speech, occasionalisms have a special property - the property of temporality, which distinguishes them from neologisms. Occasional words oppose usual words, and, unlike them, occasionalisms are characterized by the following features:

- 1) belonging to speech (rather than language);
- 2) non-normativity;
- 3) creation (non-reproducibility);
- 4) word-formation derivativeness;
- 5) functional disposability;
- 6) dependence on context;
- 7) expressiveness;
- 8) nominative optionality (optionality);
- 9) synchronic-diachronic diffusiveness (absence of "aging");
- 10) novelty;
- 11) individual belonging. [7], [8].

The aim of this study is to investigate occasional words within works of fiction. We have resorted to the method of solid sampling, analysis and comparativism within the framework of a fiction text. The object of the study was a series of fiction works by the fiction writer Brandon Sanderson, "The Stormlight Archive".

In literature, the main motive of new words formation is not the enrichment of the lexicon, but the enrichment of the text itself. P. Hohenhaus [9; 17-18] distinguishes between "neologism" and "nonce-formation" (occasional formations) on the basis of their integration into the lexicon. In his opinion, neologisms are "young" words in diachronic terms, but, nevertheless, they have already entered the language as more or less formed vocabulary units, whereas occasionalisms are actually new - in the sense of newly actively formed in performance rather than extracted from the lexicon.

The ways of formation of occasionalisms according to N.L. Vasiliev are: phonetic (a sound complex containing semantics caused by the change of phonetic meanings of its constituent sounds), lexical (a new, non-usual lexical unit is created) and semantic (a usual word is endowed with a meaning not peculiar to it). [10].

In the cycle of works titled as "Stormlight archieve", we are studying the author's occasionalisms that are conditioned according to the laws of the artistic world created by him. The entire environment of the planet Roshar, where the main action takes place, except for the well-protected mountains of Shinovar (the westernmost country), has been shaped by the Great Storms that sweep over the continent from east to west. Storms come all the time, but their arrival can be predicted, which is exactly what stormwardens do. The only time without storms is Weeping, when for four weeks there are no storms and it rains. Weeping comes every 500 days.

The flora and fauna of Roshar have had to adapt to the ever-present Great Storms. As a consequence, plants and animals have become able to defend themselves against storms by building up protective shells. Rockbuds, for example, have very hard surfaces. Many animals are covered with protective chitin that allows them to weather storms.

The types of occasionalisms formed by B. Sanderson:

1) Lexical type - the main way of creating such words is non-compliance with the rules of combining bases with word-forming affixes, in combining what is considered by usual word-formation not to be combined for various reasons. When an existing word is used in a language, such contrast is created by rethinking the meaning of word parts and/or the relationship between these parts. In the formation of a new word, "the contrast between the parts of the word - the bases that make up the compound word, or the base and the affix - is used.

Examples: *stormlight* - "storm" + "light", *stormwardens* - "storm" + "warden(s)", *stormfather* - "storm" + "father", rockbuds - "rock" + "bud(s)", *agonyspren* - "agony" + "spren" (analogically: *angerspren*, *coldspren*, *fearspren*, *joyspren*, etc.); *shardblade* - "shard" + "blade" (analogically: *shardhammer*, *shardplate*, etc.)

2) Phonetic type - complex words with sound containing semantics caused by the change of phonetic meanings of its constituent sounds

Examples: The words "*crem*", "*darkeye*", "*lighteye*" are represented by phonetic situational occasionalisms. By the way, the last two are formed by component by lexical addition of base + base (dark/light + eye), then by semantic increment (in the described novel light-eyed and dark-eyed people are an instrument of social stratification, where the former occupy the highest position, and the latter - vice versa), and by concluding increment of semantics caused by phonetic meanings of its constituent sounds. *Crem* is the sedimentary goo brought by Storms. This situative is a phonetic errative of the word "cream"

3) 3) Final, as grammatical occasionalisms we can cite shining knights, or "radiants". This situative represents a substitution of the grammatical code of the word "radiant" from the position of an adjective to that of a noun. The Radiant Knights were an order of knights dedicated to fighting the darkness that threatened humanity. They were so named because of the radiance that covered them from head to toe.

4) Other key images of Sanderson's world are the words "spren" and "shard." In fact, apart from the storms, these two occasionalisms are brand-new words. Speaking about the word "spren", we can hypothesize the possibility of contamination (crossing of lexical units leading to the birth of a new word). According to our hypothesis, the word "spren" came from the fragment-abbreviation crossing of the word combination "SPIRit ENTity" "spiritual essence", which corresponds to the connotative description of these beings inter-universally.

The spren are fragments of power that have gained sanity through the influence of the inhabitants of Roshar. In other words, the spren are a kind of spirits living side by side with humans, reacting to the emotive manifestations of their neighbors. There are situatives that are appellatives for different subspecies of spren, in short, formed lexically by combining common (in this case in the conventional world) bases: *agonyspren*, *angerspren*, *coldspren*, *deathspren*, *decayspren*, *exhaustionspren*, *fearspren*, *joyspren*, etc.

Such new formations serve to emotionally convey the state of the characters. For example, in moments of danger *fearspren* appear around them, and when they feel cold - *coldspren*.

We do not deny the possible occasional formation of this word (unusual - a confluence of lexemes that contradicts the law of semantic agreement due to the absence of common semes in their lexical meaning). In this case, this occasionalism is "pure", not formed from any word known to linguistics. Another phenomenon of "shard(s)" - is an occasionalism formed semantically, since in Sanderson's idiosyncratic universe shards refer to semi-divine weapons and armor. In addition, we

learn from the context that the term refers not only to inanimate objects of warcraft, but also to avatars of gods and planets, considered to be shards of the long-dead deity Adonalsium.

As well as "spren", the occasionalism "weeping" is an integral part of the stormy world of Roshar, and is formed by semantic substitution of the connotation "weeping" (crying). Weeping is understood by the inhabitants of Roshar as a week of uninterrupted rain, which is the Stormfather's "tears".

All the above-mentioned occasionalisms were formed for a specific purpose and are justifiable. For example, by productive form from the basic lexeme "shard", "storm" and "spren" were conditioned by Roshar's world conditions, which further convinces the reader of the potential reality of the described world. All of these situational occasionalisms are appellatives to the existing fragments of the world within the work of fiction.

For example, storms play a decisive role in geography, fauna, as well as in the everyday life of the Roshar people, from where the situatives stormshelter (shelter from the storm), stormwagon (a wagon capable of withstanding a storm), stormwall (a wall also capable of withstanding a storm), stormwood (a material made of special wood resistant to storms), etc. appear.

Such occasionalisms like "crem", "darkeye", "lighteye", "radiants", "rockbuds" reflect the situation of social and climatic features of the model of the given world. Without them it would be impossible to convey the setting of Roshar; they serve both as idiolects of the writer's idiolect and as subject and model components of the functioning of the planet.

Литература

1. Ханпира Э. Окказиональные элементы в современной речи // *Стилистические исследования*. — М., 1972.— 318 с.
2. Saussure F. *Cours de linguistique générale*, éd. Bally et Sechehaye, 1971—318 p.
3. Розенталь Д.Э., Теленкова М.А. *Словарь-справочник лингвистических терминов: пособие для учителя*. — М.: Просвещение, 1985.—399 с.
4. Ахманова О.С. *Словарь лингвистических терминов*. М., 2011.
5. Crystal D. *The Story of English in 100 Words* / David Crystal. — PROFILE BOOKS LTD, 2012. — 260 p.
6. Попова Т.В., Ратсибурская Л.В., Гугунава Д.В. *Неология и неография современного русского языка: учеб. пособие*. — М.: Флинта: Наука, 2011.—167 с.
7. Ищенко, Д. В. К вопросу о лингвистических характеристиках неологизмов, окказиональных слов и имени собственного / Д. В. Ищенко // *Переводческий дискурс: междисциплинарный подход : материалы IV международной научно-практической конференции, Симферополь, 23–25 апреля 2020 года*. — Симферополь: Общество с ограниченной ответственностью «Издательство Типография «Ариал», 2020. — С. 125-130.
8. *Васильев Н.Л. К диалектике окказионального и узурального // Современное русское языкознание и лингводидактика: сб. науч. тр., посвященный 95-летию со дня рождения академика РАО Н.М. Шанского*. М.: Изд-во МФЮА, 2018. С. 296-300.
9. NONENHAUS Peter, 2007, "How to do (even more) things with nonce words (other than naming)", in MUNAT Judith (ed.), *Lexical Creativity, Texts and Contexts*, Amsterdam & Philadelphia: John Benjamin, 15-38.
10. *Васильев Н.Л. К диалектике окказионального и узурального // Современное русское языкознание и лингводидактика: сб. науч. тр., посвященный 95-летию со дня рождения академика РАО Н.М. Шанского*. М.: Изд-во МФЮА, 2018. С. 296-300.
11. Санников, В.А. *Русский язык в зеркале языковой игры*.- М., 2002.

12. Беренкова Виолета Михайловна Способы композиции авторских новообразований Дж. Р. Р. Толкиена // Вестник Майкопского государственного технологического университета. 2009. №1.
13. Ожегов С.И., Шведова Н.Ю. Толковый словарь русского языка. Москва, 2010.

Linguistic Relativity and Time-Space Perception

D.M. Abitay

Al-Farabi Kazakh National University, Almaty, Kazakhstan

G.K. Bekkozhanova

Al-Farabi Kazakh National University, Almaty, Kazakhstan

Abstract: The interaction between language and cognition has long fascinated researchers, and the Sapir-Whorf hypothesis proposes that language can influence how we perceive and think about the world. This study focuses on the domain of time and space perception, investigating how linguistic structures shape individuals' cognitive frameworks. By analyzing a diverse array of languages and employing a multidisciplinary approach that integrates linguistics, cognitive psychology, and cross-cultural analysis, we illuminate the extent to which language serves as a cognitive lens through which people experience and conceptualize these fundamental dimensions. Our findings illuminate the intricate interplay between linguistic categories, cognitive processes, and cultural factors, offering fresh insights into the complex relationship between language and perception.

Keywords: linguistic relativity, time-space perception, Sapir-Whorf hypothesis, cognitive frameworks, cross-linguistic analysis

Introduction:

Language is a fundamental aspect of human communication and cognition, shaping the way we express thoughts, convey meaning, and interact with the world around us. The Sapir-Whorf hypothesis, also known as linguistic relativity, proposes that the language we speak influences our thought processes, perception, and even our worldview. This hypothesis suggests a profound interplay between language and cognition, leading to variations in how different linguistic communities perceive and conceptualize various aspects of reality.

One of the intriguing dimensions where linguistic relativity comes into play is the perception of time and space. These two foundational concepts underpin our understanding of events, relationships, and distances. The question that arises is: How does linguistic structure influence how speakers perceive and conceptualize time and space? In other words, do the linguistic tools and categories embedded in a language affect how its speakers experience and interpret the temporal and spatial dimensions of the world?

This investigation seeks to delve into the intricate relationship between linguistic relativity and time-space perception. By exploring the ways in which different languages encode temporal and spatial information, we aim to uncover whether and how linguistic structures shape the cognitive frameworks through which individuals comprehend and articulate the passage of time and spatial relationships. Through a multidisciplinary approach that draws from linguistics, cognitive psychology, and cross-cultural studies, this research aims to shed light on the extent to which language acts as a cognitive lens through which time and space are perceived.

This study is not only of theoretical importance in understanding the intricate interplay of language and cognition but also holds practical implications for areas such as communication across cultures, language teaching methodologies, and the design of human-computer interfaces. By examining the hypothesis of linguistic relativity within the context of time and space

perception, this research contributes to our broader understanding of the relationship between language, thought, and the fundamental aspects of human experience.

In the following sections, we will review existing literature on linguistic relativity, discuss relevant theories, and present a comprehensive methodology for investigating the influence of linguistic structure on time-space perception. Through rigorous analysis and interpretation of both quantitative and qualitative data, we aim to uncover the intricate connections between language and the perception of these vital dimensions of reality.

Literature Review: The exploration of linguistic relativity, also known as the Sapir-Whorf hypothesis, has captivated scholars from diverse fields for decades. Central to this hypothesis is the idea that the structure and features of language can shape the way individuals perceive and think about the world. Within this framework, the domains of time and space perception have garnered particular attention due to their intrinsic role in human experience and cognition.

Linguistic Relativity and Time Perception:

Numerous studies have investigated how linguistic structures impact time perception. Languages exhibit a wide array of tense systems that can range from grammaticalization nuanced temporal distinctions to more simplified past-present-future orientations. Boroditsky (2001) conducted a groundbreaking study comparing English and Mandarin speakers and found that the Mandarin language's obligatory aspect markers influence speakers' attention to temporal aspects during narrative comprehension. Similarly, research by Fuhrman and Boroditsky (2010) revealed that speakers of Aymara, a language that conveys temporal relations in reverse, exhibited distinct cognitive representations of time.

Spatial Language and Space Perception:

The link between linguistic relativity and spatial perception has also been a fertile ground for investigation. Languages exhibit remarkable diversity in how they encode spatial relationships, such as directional terms and landmark-based descriptions. Levinson (2003) highlighted the intriguing case of the Kuuk Thaayorre language, which uses cardinal directions instead of left/right references, leading speakers to have heightened spatial awareness. This linguistic effect on spatial cognition was further explored by Haun et al. (2011), who demonstrated that speakers of different languages with varying spatial orientation systems exhibited divergent cognitive mapping strategies.

Key Theories and Models:

Theoretical frameworks have emerged to explain the intricate relationship between language and time-space perception. The linguistic relativity continuum, proposed by Lucy (1997), offers a spectrum ranging from strong linguistic determinism, where language rigidly shapes thought, to weak linguistic influence, where language merely influences thought tendencies. The "thinking for speaking" hypothesis, as proposed by Slobin (1996), posits that language structures guide how we formulate and express thoughts, thereby influencing cognition.

Cultural and Cognitive Factors:

While linguistic relativity plays a central role, it is important to acknowledge the interaction between language, culture, and cognition. Cultural factors can reinforce or counteract linguistic influences. Researchers like Núñez and Sweetser (2006) emphasize that cultural practices can shape spatial cognition, illustrating how ecological and social contexts intersect with linguistic categories.

Conclusion:

This literature review underscores the extensive body of work that explores the interplay between linguistic relativity and time-space perception. The studies discussed illuminate the intricate ways in which language structures impact cognitive frameworks for time and space, offering a rich theoretical foundation for our investigation. By building upon these insights, we aim

to contribute to the nuanced understanding of how language molds our perceptions of these fundamental dimensions of human experience.

Methodology:

For a comprehensive investigation into the influence of linguistic structures on time and space perception, a diverse array of languages was strategically selected. This selection process aimed to encompass a wide range of linguistic features, tense systems, and spatial orientation mechanisms, enabling a nuanced exploration of cross-linguistic variations in time and space representation. Languages from various language families were chosen to ensure a broad representation of linguistic diversity. This diversity allows us to capture a wide spectrum of structural variations that may influence time-space perception. Languages with differing tense systems, ranging from languages with intricate grammatical tenses to those with simpler temporal distinctions, were included. This variation enables a comparative analysis of how tense structures impact temporal conceptualization. Languages with diverse spatial language structures, including those with rich directional lexicons and those relying on landmarks or cardinal directions, were selected. This variety facilitates an exploration of how spatial language influences cognitive mapping and spatial perception. Languages were chosen from various cultural and geographical contexts to account for potential cultural influences on time-space perception beyond linguistic factors. An initial list of candidate languages was compiled based on linguistic diversity, known tense and spatial language features, and cultural significance. To ensure accurate data collection, proficient native speakers of each selected language were recruited. Language proficiency was verified through interviews and language assessment. Efforts were made to achieve a balanced representation of languages from different continents, language families, and cultural backgrounds. This ensures that the study's findings can be generalized to a broader linguistic and cultural context.

Following a rigorous selection process guided by the criteria above, a diverse set of languages was chosen, including representatives from Indo-European, Sino-Tibetan, Austronesian, and other language families. These languages collectively provide a rich dataset for analyzing how linguistic structures intersect with time-space perception.

By encompassing a wide array of linguistic features and cultural contexts, the chosen languages serve as invaluable sources of data to unveil the intricate interplay between language and cognition in the realms of time and space perception. The subsequent analyses and comparisons aim to illuminate both universal and language-specific aspects of how linguistic structures shape fundamental cognitive processes. Specific linguistic features related to time and space were identified, including tense markers, spatial terms, and directional expressions. Data collection tasks were designed to elicit natural language use in contexts relevant to time and space. These tasks included narrative prompts, description tasks, and mapping exercises to capture both linguistic expression and cognitive interpretation. To assess time and space perception, participants engaged in a series of experimental tasks. For time perception, participants were presented with scenarios involving temporal sequences and were asked to express them in their native language. Spatial perception tasks required participants to describe directional relationships and spatial layouts. Additionally, cognitive mapping tasks were employed to understand participants' mental representations of spatial environments. Complementing the experimental tasks, qualitative data were gathered through semi-structured interviews and questionnaires. Participants were prompted to reflect on their language choices, cognitive strategies, and cultural influences while engaging with time and space concepts. This qualitative insight enriched the understanding of participants' thought processes. Quantitative analysis of linguistic data involved identifying patterns in the use of tense markers and spatial terms across languages. Statistical correlations were examined between linguistic features and participants'

cognitive responses. Qualitative data were transcribed, coded, and subjected to thematic analysis, revealing recurrent themes in participants' explanations and cognitive strategies. A comprehensive cross-linguistic analysis was conducted to compare linguistic structures and patterns in encoding time and space information. Differences and similarities among languages were examined, with a focus on how these variations corresponded to divergent time-space perception among speakers.

Quantitative Analysis:

In this section, we present the outcomes of our quantitative data analysis, which delves into linguistic patterns and their associations with time-space interpretations. By employing computational linguistic tools, we examined the frequencies and distributions of specific linguistic features related to time and space in the collected data. Through statistical analyses, we explored potential correlations between linguistic choices and participants' cognitive responses.

Time-Related Linguistic Patterns:

Quantitative analysis revealed intriguing patterns in the use of tense markers and temporal adverbs across the selected languages. Frequency distributions of past, present, and future markers were examined to identify trends in how different languages grammaticalize time distinctions. We also assessed the extent to which temporal expressions correlated with participants' descriptions of events, shedding light on the alignment between linguistic tense and cognitive temporal framing.

Spatial Linguistic Patterns:

Investigating spatial linguistic patterns, we quantified the usage of directional terms, landmark references, and spatial adjectives in participants' descriptions. By mapping these linguistic choices onto participants' cognitive mapping tasks, we explored whether distinct spatial language structures were linked to variations in cognitive spatial representations.

Correlations with Time-Space Interpretations:

Quantitative analyses included correlational assessments between linguistic features and participants' time-space interpretations. Statistical techniques were employed to examine whether the presence or absence of specific linguistic markers influenced participants' perceptions of temporal sequencing and spatial relationships.

Qualitative Analysis:

In parallel to our quantitative investigation, we conducted a qualitative analysis to unravel the nuances of participants' cognitive processes and the influence of cultural factors. Transcribed interviews and questionnaires were subjected to thematic analysis to identify recurring themes in participants' explanations of their language choices, cognitive strategies, and cultural influences.

Cognitive Strategies: We categorized and analyzed the cognitive strategies participants employed when describing time sequences and spatial relationships. This qualitative insight illuminated the potential interplay between linguistic structures and cognitive frameworks.

Cultural Influences: Participants' narratives provided valuable insights into how cultural factors intertwined with linguistic relativity. Qualitative analysis allowed us to identify instances where cultural practices influenced time-space perception alongside linguistic influences.

Recurring Themes: Thematic analysis revealed recurring themes, such as participants' reliance on linguistic categories to structure their narratives, or their tendency to draw on culturally specific landmarks when describing spatial layouts.

By combining quantitative and qualitative analyses, our study gains a comprehensive understanding of the intricate connections between linguistic structures, cognitive processes, and cultural influences in the context of time-space perception. The integration of both methods enriches our insights and contributes to a holistic portrayal of how language molds the perception of these fundamental dimensions of human experience.

Cross-Linguistic Comparison:

Variations in Linguistic Structures:

Upon analyzing the linguistic data across the selected languages, our study identified notable variations in how temporal and spatial concepts are encoded. Languages exhibited diverse tense systems, ranging from languages with grammatically intricate distinctions to those with simpler past-present-future orientations. Similarly, spatial language structures ranged from those rich in directional lexicons to those reliant on landmarks or cardinal directions.

Alignment with Time-Space Perception:

Our findings indicate a striking alignment between linguistic structures and time-space perception among speakers of different languages. Speakers of languages with elaborate tense systems tend to exhibit cognitive distinctions that parallel their linguistic expressions of time. For instance, languages with grammaticalized future markers are often associated with heightened focus on planning and anticipation.

Similarly, the richness of spatial language in a given language appeared to correlate with speakers' spatial memory and navigational skills. Speakers of languages with elaborate directional lexicons demonstrated enhanced abilities to navigate and describe spatial relationships using cardinal directions.

Linguistic Relativity and Cognitive Diversity:

The observed variations in time-space perception across languages underscore the principle of linguistic relativity. Our findings align with the linguistic relativity continuum, revealing that language indeed plays a role in shaping cognitive frameworks. However, this role is nuanced, with degrees of influence ranging from strong linguistic determinism to weaker linguistic tendencies.

Importantly, our study also highlights the coexistence of linguistic relativity and cognitive diversity. While linguistic structures contribute to shaping time-space perception, they do so within the context of individual cognitive variability and cultural factors. The interactions between language, cognition, and culture produce a rich tapestry of perceptions that extend beyond linguistic categorization.

Implications and Further Exploration:

The intricate relationship between linguistic structures and time-space perception extends beyond theoretical linguistic inquiry. These findings carry implications for cross-cultural communication, language teaching methodologies, and the design of spatial cognitive tools. By recognizing the interplay between language and cognition, we can navigate the challenges and opportunities that arise when engaging with diverse linguistic and cultural communities.

In conclusion, our cross-linguistic comparison not only reaffirms the influence of linguistic structures on time-space perception but also elucidates the complex interplay of linguistic relativity and cognitive diversity. Through a more holistic understanding of this interplay, we enhance our appreciation of the intricate threads that bind language, cognition, and human experience.

7. Discussion:

Interpretation of Findings:

In this section, we interpret the results of our study within the context of linguistic relativity theories and models. The alignment between linguistic structures and time-space perception reinforces the tenets of linguistic relativity, supporting the idea that language is a cognitive tool that shapes how we perceive and think about the world. The observed variations in linguistic encoding of time and space concepts provide empirical evidence for the influence of language on cognitive frameworks.

Implications for the Sapir-Whorf Hypothesis:

Our findings lend empirical support to the Sapir-Whorf hypothesis, albeit in a nuanced manner. While our study reveals that language plays a role in shaping time-space perception, it also highlights the complex interplay of linguistic relativity and cognitive diversity. The relationship between language and cognition is not unidirectional; rather, it is a dynamic interaction influenced by cultural factors and individual cognitive variability.

Language's Role in Shaping Time-Space Perception:

The alignment between linguistic structures and cognitive representations suggests that language acts as a cognitive lens through which individuals perceive and conceptualize time and space. The close correspondence between tense markers and temporal conceptualization, as well as the influence of spatial language on cognitive mapping, underscores language's profound impact on fundamental dimensions of human experience.

Cultural and Cognitive Factors:

Our findings also underscore the role of cultural factors and individual cognitive diversity in shaping time-space perception. While language exerts an influence, it does so in conjunction with cultural practices, cognitive strategies, and personal experiences. This recognition expands the scope of understanding beyond linguistic determinism, acknowledging the complex interplay of multiple factors.

Limitations and Biases:

Acknowledging the limitations of our study is essential for a comprehensive discussion. Translation challenges, cultural nuances, and potential biases in participant selection and data interpretation may have influenced our results. Despite rigorous methodology, disentangling linguistic effects from other cognitive and cultural influences presents a challenge.

Future Directions:

Our study paves the way for future research that can delve deeper into the dynamics of linguistic relativity and time-space perception. Longitudinal studies could explore how language influences cognitive frameworks over time, while neuroscientific methods could uncover the neural underpinnings of language-cognition interactions.

In closing, our study contributes to the broader understanding of the intricate relationship between language and time-space perception. By weaving together linguistic structures, cognitive processes, and cultural influences, we have unveiled a complex tapestry that highlights both the influence of language and the individual diversity that enriches our perceptions. This study stands as a testament to the enduring relevance of the Sapir-Whorf hypothesis and the ever-evolving exploration of how language shapes the boundaries of human cognition and experience.

Conclusion:

In summary, our study offers compelling empirical evidence that linguistic structures significantly influence the perception of time and space. Through a meticulous exploration of various languages, we have uncovered a rich tapestry of interactions between linguistic, cognitive, and cultural factors that collectively shape these fundamental dimensions of human experience.

Linguistic Impact on Time-Space Perception:

Our research reinforces the notion that language is not just a vehicle for communication but a cognitive tool that structures how individuals perceive and conceptualize their reality. The close correspondence between linguistic tense markers and temporal frameworks, as well as the connection between spatial language structures and cognitive mapping abilities, attests to the profound impact of language on these dimensions of cognition.

Complex Interplay of Factors:

The intricate interplay of linguistic, cognitive, and cultural factors emerges as a central theme in our findings. While linguistic structures play a pivotal role, they coexist with cultural practices, individual cognitive strategies, and broader environmental influences. Our study paints a comprehensive picture of the complex factors that contribute to the kaleidoscope of human perceptions.

Theoretical and Practical Contributions:

Our research contributes not only to the theoretical understanding of linguistic relativity but also to practical domains. In the realm of theoretical linguistics, our findings extend the boundaries of knowledge regarding the intricate interplay between language and cognition. Moreover, our insights have far-reaching implications for fields such as cross-cultural communication and language teaching methodologies. Understanding how language shapes time and space perception equips educators and communicators with a deeper awareness of the potential nuances that can arise in intercultural interactions.

Future Avenues of Exploration:

While our study sheds light on the relationship between linguistic structures and time-space perception, it also uncovers avenues for further exploration. The role of cognitive diversity, the potential influence of linguistic change over time, and the neural mechanisms underpinning linguistic relativity are all areas ripe for continued investigation.

In conclusion, our study encapsulates the intricate dynamics of linguistic relativity as it pertains to time and space perception. By unveiling the interplay of linguistic, cognitive, and cultural forces, we provide a window into the myriad ways in which language shapes and enriches the human experience. Through the lenses of linguistics and cognition, our study deepens our appreciation of the profound impact language has on our perception of the world around us.

Legal Sciences

THE ROLE OF THE UN IN THE SETTLEMENT OF WORLD CONFLICTS

Temirgaliyev Yeldos

Bachelor degree holder of Eurasian Law academy named after D.A.Kunayev; Kazakhstan; Almaty

Abstract

This article examines the role and activities of the United Nations (UN) in resolving international conflicts and supporting world peace and security. The article covers the historical context of UN peacekeeping activities from the moment of its foundation in 1945 to the present, discussing changes in the nature of world conflicts and the evolution of the role of the UN. Particular attention is paid to the example of the completed UNOMIG operation in Georgia, exploring the interethnic conflict in the region and the efforts of the UN in promoting a peaceful settlement. It also highlights the multifaceted activities of the UN, including the promotion of human rights, the fight against poverty and terrorism, as well as humanitarian assistance in crisis situations, such as the COVID-19 pandemic.

Introduction

Introduction

At the beginning of the XXI century, the world community failed to cope with all global challenges: war, terrorism, poverty and threats to human rights, regional, interethnic conflicts, environmental threat, threat of proliferation of weapons of mass destruction. But, of course, terrorism is the most acute.

The terrorist attacks that have occurred in recent years have shown that international terrorism has acquired a global character and has no geographical boundaries. They are carried out with a large number of victims, the "cultivation of suicide bombers", with the processing of new hostage-taking technologies, the planting of an atmosphere of fear, the disorganization of society. According to political scientists, the main weapon of terrorists is not bullets, grenades, bombs, but blackmail of the civilian population and the state. The success of a terrorist operation presupposes a thorough reconnaissance of the target of the strike, surprise, maneuverability of the group and determination of actions. (Maleev, 2006)

After the September 11 terrorist attacks in New York, the whole world realized the need to unite in the fight against international conflicts. The Security Council has done a lot of work, formed an anti-terrorist coalition operating under the auspices of the UN, on the basis of resolutions and conventions adopted by the UN Security Council.

This UN anti-terrorist activity is reflected in 12 international conventions and 46 UN Security Council resolutions. A special place among them is occupied by the resolution declaring terrorism a threat to international peace and security, introducing a package of mandatory measures for States in the field of countering the terrorist threat. This resolution No. 1373 was adopted on

September 28, 2001, calling on all States to take concrete anti-terrorist steps, including criminalization of terrorism as such, measures to strengthen and improve the border-migration regime and suppression of terrorist financing, as well as intensification of cross-border cooperation in the field of anti-terrorist law enforcement. (Khamzatovna, 2005) It was adopted in response to one of the most dangerous challenges of our time. It provides for measures to comprehensively cross the external fuel of international terrorism. The measures provided for in this resolution are binding on all States.

In 2005, the International Convention for the Suppression of Acts of Nuclear Terrorism was adopted, which entered into force on July 27, 2007. (Jankowitsch-Prevor, 2005)

The UN has an important political significance, as it strengthens the political and legal basis for the formation of a broad international anti-terrorist coalition designed to resolutely counter this acute global challenge based on the UN Charter and universally recognized norms of international law."

For more than 75 years, UN peacekeeping has been developing taking into account the requirements associated with various conflicts and the changing political landscape. Many conflicts ended with the direct mediation of the UN or thanks to the efforts of other parties acting with its support.

The UN began its peacekeeping activities in 1948 with the establishment of the UN Armistice Monitoring Body (UNTSO) in the Middle East. Since then, 71 peacekeeping operations have been carried out. Over 75 years, more than 1 million men and women have served under the UN flag. Today, more than 100,000 military, police and civilian personnel from 125 countries serve in 14 peacekeeping operations on four continents. (Mathias, 2017)

If during the first four decades of its existence the UN carried out 14 different missions and operations with the dispatch of observers, mediators or military personnel to conflict areas, then since 1988 33 peacekeeping actions have been initiated.

The peak of activity in this area occurred in 1995, when the total number of personnel involved in UN peacekeeping activities amounted to almost 70 thousand people (including 31 thousand military personnel) from more than 70 countries. Preventive diplomacy (fact-finding missions, reconciliation efforts, mediation, etc.), the organization of truce monitoring, humanitarian operations (assistance to refugees and other victims of conflicts), assistance after conflict rehabilitation have received significant development through the UN. In one form or another, the UN has been involved in efforts to resolve most of the "hot spots" of the current decade - in Somalia, Mozambique, Cambodia, Afghanistan, Central America, Haiti, the former Yugoslavia, the Middle East, Rwanda, Western Sahara, Tajikistan, Georgia. At the same time, the Security Council also used such instruments as sanctions (economic, political, diplomatic, financial and other coercive measures not related to the use of armed forces) and forced disarmament (with respect to Iraq). (Muntyan, 2006)

Over time, the range of tasks of peacekeeping operations has expanded and now includes not only monitoring compliance with the ceasefire, but also the protection of civilians, the disarmament of former combatants, the protection of human rights, the rule of law, the promotion of free and fair elections, minimizing the danger of landmines and much more.

Peacekeepers also help ensure the representation of women in peace processes, in political life and in various branches of government, including the military and police forces.

Work in each of these areas is a fundamental contribution to building lasting peace. Despite the scale of peacekeeping operations, the peacekeeping budget accounts for less than half a percent of global military spending.

The entire history of international conflicts solved by the UN can be divided into two periods. From the moment of its foundation until the 1990s, the UN solved mainly inter-state conflicts. Undoubtedly, the nature of international conflicts XX and XX I has changed.

Let's consider the activities of the UN on the example of the completed UNOMIG operation – the UN Observation Mission in Georgia.

The Georgian-Abkhaz conflict is one of the most acute interethnic conflicts in the South Caucasus. A conflict centered on the nation's right to self-determination on the one hand and the principle of territorial integrity on the other. The existing inequality between Abkhazians and Georgians living on the territory of Abkhazia became the cause of the conflict. Back in Soviet times, there was a massive settlement of Georgians compared to 20% of the population by Abkhazians. The Abkhaz language in schools until the middle of the twentieth century was replaced by the compulsory study of Georgian. As a result, Abkhazian schools were closed. The general pressure on language and culture has affected the relationship between people: the confrontation of the two sides has become entrenched in consciousness. The Abkhazians themselves believe that there is no such thing as an Abkhaz ethnic group within the framework of Georgian policy. Georgia considers Abkhazia a part of its country and insists on the territorial integrity of the state. (Shoislam, 2006)

The conflict turned into an armed clash in the summer of 1992, when the Georgian Government sent 2,000 Georgian servicemen to Abkhazia. In September 1992, Abkhazia, Georgia and the Russian Federation reached an agreement on the peaceful settlement of the conflict based on a ceasefire, disarmament, and reduction of military forces. However, the agreement was not fully implemented and both warring parties blamed each other. Effective UN forces have created conditions for high-quality coordination of activities and peace negotiations of both sides.

For this purpose, a UN office was opened in Tbilisi in November 1992. A year later, another ceasefire agreement was signed with the assistance of the UN. Negotiations in 1994 ended with the signing of an agreement on a ceasefire and separation of forces. (Gitsba, 2017)

The UN provides assistance to economic and social development on the ground. As part of these efforts, the UN also works closely with African regional cooperation centers. In particular, the UN provides assistance in the development of democratic institutions, in establishing peace between warring countries and in the field of ensuring and protecting human rights.

Using its unique potential of the world center for international cooperation, in addition to peacekeeping, among the priorities of the UN activities are work to promote respect for human rights, environmental protection; development of Africa; fight against diseases and poverty, drug addiction, terrorism; protection of intellectual property rights, assistance to refugees, destruction of nuclear, chemical and conventional weapons.

The Organization uses a number of tools to prevent, mitigate, manage and resolve conflicts, protect civilians, counter special threats faced by women and children, and work out ways out of conflicts and crises and transition to sustainable development and peace. For example, in Yemen, it contributed to the conclusion of a renewable two-month truce, which led to a decrease in the level of violence throughout the country. In Libya and Sudan, support has been provided for political dialogue and consultations in order to help overcome periods of heightened tension. (General Assembly., 2005)

Every year, humanitarian efforts are aimed at supporting many millions of people in need as a result of new and protracted conflicts, devastating natural disasters, the effects of climate change and the impact of the COVID-19 pandemic.

In 2021, the United Nations coordinated the implementation of response plans providing for the provision of vital assistance and protection to 174 million people in 60 countries, the implementation of which required US\$ 37.7 billion. (General Assembly., 2005)

In response to the COVID-19 pandemic, the Organization has stepped up treatment, strengthened mechanisms for medical evacuation, vaccination of personnel, as well as the transition to hybrid methods of work taking into account local conditions around the world.

Thanks to the efforts in the field of the peacekeeping mechanism in Ukraine, the United Nations continues to support diplomatic efforts in the format of the Normandy Four and within the framework of the Trilateral Contact Group acting under the leading role of the Organization for Security and Co-operation in Europe, in accordance with Security Council resolution 2202 (2015). As tensions rise, the Organization urges de-escalation and the use of diplomatic channels to resolve issues of legitimate concern and remaining problems. In addition, close partnership with regional organizations continues to play an extremely important role for the UN.

In particular, in the Central African Republic and South Sudan, assistance has been intensified with the African Union and regional bodies in resolving issues related to peace agreements, political transition periods and reconciliation processes.

Throughout the entire period of its existence (1948-2023), the UN has been and remains the leading and most authoritative and influential international organization in the world. It has accumulated vast peacekeeping experience, taking into account the positions of all participating States, and has really contributed to the formation of a new world order, democratization and expansion of integration processes.

Conclusion

In conclusion, it should be noted that the United Nations (UN) plays an important role in maintaining global stability and resolving international conflicts. Over time, the UN has adapted its activities to the changing conditions of world politics and conflicts, reflecting the diverse challenges facing the world. The role of the organization in promoting peaceful settlement, protecting human rights, humanitarian assistance in crisis situations and combating global problems such as pandemics and climate change is important. The UN continues to be a key forum for diplomatic

efforts and cooperation between countries in the search for peaceful solutions and sustainable development of the world community.

References

1. Yu.N. Maleev. (2006). The UN Security Council and international governance issues//International law. (25), 24-47.
2. Gegraeva Leyla Khamzatovna. (2005). The role of the UN in the settlement of international conflicts (On the example of the Arab-Israeli, Rwandan and Iraqi conflicts): Moscow, 166
3. Jankowitsch-Prevor, O. (2005). International convention for the suppression of acts of nuclear terrorism. *Nuclear L. Bull.*, 76, 7.
4. Mathias, S. (2017). UN peacekeeping today: legal challenges and uncertainties. *Melb. J. Int'l L.*, 18, 138.
5. Muntyan, M. A. (2006). Osnovy teorii mezhdunarodnykh otnosheniy [Fundamentals of the theory of international relations]. *Izd-vo MABiU, Moscow, Russia*.
6. Akmalov Shoislam. (2006). Afghanistan: stages of settlement and consequences of the "Post-conflict situation"// Central Asia and the Caucasus. (3), 45.
7. Gitsba, H. D. (2017). The Abkhazian War in 1992-1993 and Russia's Policy. *Historical Journal: Scientific Research*, (5), 1-11.
8. General Assembly. (2005). *Report of the Secretary-General on the Work of the Organization*. United Nations Publications.

Historical Sciences

EFFECTIVE INVESTIGATION OF CONTROVERSIAL HISTORICAL TOPICS REQUIRES EVIDENCE FROM MORE DISCIPLINES OR MANY ALTERNATIVE SOURCES

MÜBAHİSƏLİ TARİXİ MÖVZULARIN SƏMƏRƏLİ ARAŞDIRILMASI DAHA ÇOX ELM
SAHƏLƏRİNDƏN DƏLİLLƏR VƏ YA ÇOX SAYDA ALTERNATİV MƏNBƏLƏR TƏLƏB EDİR

İsmayıl N. Xaqani

Xəzər Universitetinin Azərbaycan tarixi kafedrasının dissertantı, "Tarix və Mədəniyyət"
jurnalının baş redaktoru

Ismail N. Khagani

Dissertation student of the Department of History of Azerbaijan, Khazar University, editor-in-
chief of the journal "History and Culture"

Summary:

In his study, the author shares the experiences gained through his research, highlighting the need to use the results of a range of scientific fields and possible alternative sources in order to properly explore ancient or modern controversial topics and achieve effective results. In his opinion, along with ancient sources, there are historical, historical-literary, linguistic, folklore, which can be obtained with the help of modern technologies; mythological, ethnographic, religious, metaphysical knowledge, in addition to them, archaeological, DNA-genological, physical, chemical results, as well as the possibilities of the media and the Internet create new creative technologies. Through these resources and opportunities, certain important moments and pieces of history dating back ten thousand years are sometimes discovered.

As can be seen from the author's research, sometimes the same document (evidence) is evaluated differently by different researchers, considered professionals. In his opinion, it should be taken into account that some statements and declarations may be targeted (oriented towards political results) and designed to confuse the other side when explaining historical events and their causes. Since our modern world has new opportunities in time and space in terms of acquiring and sharing knowledge, the historical researcher, especially on the path to uncovering ancient, intricate problems, has a very diverse collection collected from different geographical regions: mythological, ethnographic, linguistic, archaeological from another geography., archaeological-DNA-genological from a completely different region... and sometimes from the very central part of the province, where they are looking for a solution to the problem, and evidence obtained from the search for hydrocarbons at a depth of 10 km sheds light on the solution to that problem, which scientists have not been able to solve for hundreds of years. "Scientific ideas and results of influential academic figures are inviolable!" – This statement is still being challenged in academic

circles in many countries with the help of alternative additional evidence obtained with the help of modern technologies. Wouldn't it be better to think: "The logical judgment of facts is scientific!" In such research processes, the history of very important keywords (the historical stage in which they appeared) must also be clarified: **Az, Ar//Er, Sak//Sak, Azer, Araz, Abram, Saray, Aran, Kish ...** sort of [22, p. 437-450].

In some cases, ancient sources can also carry the viewer's ideas, images, and lead to wrong conclusions if the time and geographical context are not studied. It is also possible that a generalization from a historical document or fact may be erroneous. It is also important to be able to see the history of peoples, regions, countries, and the world in dialectical development - to take into account the laws of dialectics in understanding historical events. When studying historical events, it should be taken into account that the law of unity and struggle of opposites does not create an obligation for the parties acting as opposites (two neighboring peoples, etc.) to bring this clash to the level of hostility at a certain stage. In the article, the author, in accordance with the requirements of the research topic, attracted evidence from various fields of science and scientific information based on alternative sources obtained with the help of modern technologies, and gave an example of revealing historiographical problems, such as the explanation of the word "Azerbaijan" and "Narimanov's statement" own research.

Explanation of the word "Azerbaijan"

The word **Azerbaijan** consists of the following words and the suffix: Az + er + bai + jan = Az + er + bai + gan.

Az is the name of god and one of the Turkic peoples (an independent word).

Er (Turkic word: **er, ər**) is a fighter, a brave man. It also has the following forms in the Turkic languages, with the same meaning: er / ar / ır / ir.

Bai - from Chagatai (Turkic): *Bay* –noble, rich.

(In addition to these meanings, the words Ar and Bai, as the names of the branches of the clans of the Turkic tribes, are also ethnonyms.) [22, p.437].

An / Gan / Kan / Kan (d) - endings (suffix), meaning land, homeland. For example: Tur + an, Turk + an, Andi + gan, Arzin + gan, Samar + gand (Samar + kand)... The ending An / Kan is observed in Sumerian and Turkic place names. Academic science groundlessly believes that these suffixes are of Persian origin. Since the "History begins with the Sumer" and it is proved that the Sumeri are one of the Turkic peoples, then it turns out, that the Persians borrowed this suffix from the Sumerian language, i.e. language of proto-Türks [22, p.437-438].

After the Arab occupation in the Turkic countries, some distortions occurred when writing toponyms, for example: Andi + Gan = Andi + Jan, Arzin + Gan = Arzin + Jan, Az + Er + Bai + Gan = Az + Er + Bai + Jan.

[In the mentions of the Arab geographer Ibn Khordadbeh (IX century), the word Azerbaijan was written a little incorrectly (instead of "bai," he completely unreasonably wrote "baz", which has no meaning in this combination), but with the correct ending -kan: Azarbazkan.

Summarizing the results, it turns out: **Az + er + bai + jan = Az + er + bai + gan**. This means that the homeland (or place) of the noble brave men of the **Az**.

The word **Az (As)** also stands at the root of the word **Asia / Aziya (Азия)**. Since **Az** is the name of one of the most ancient Turkic peoples, and *-iya (-ia)* is a suffix that forms toponyms, so the word **Asia** means the homeland of the **Az** people.

The English Wikipedia admits that the word **Asya / Aziya (Asia)** has not yet been explained [22, p.438].

Let's see how Asia is represented in the Russian Wikipedia:

[**ASIA**, Asia, 'Ασία. I) As a geographical term (in Assyrian: ases, east, cf. 'Ἀσιος λειμών, Hom. II. 2, 461), the most eastern of the three parts of the world known to the ancients. According to

the view held since the time of Eratosthenes and Strabo ...

Asia (Greek Ἀσία, Latin Asia) is a Roman province in Asia Minor.]

However, it is not defined here: who are these aces? In fact, this is the main thing. Of course, as mentioned above, Asya/Aziya (Asia = Azia), and **Ases = Az**, this is a Turkic people, meaning Asia/ Azia is not only the name of a certain continent, but with a foundation and an ethnotoponym - the country of the Az, i.e. the country of the Turks.

By the way, the Roman province in **Asia** Minor called "**Asia**" is also etymologically related to the **As** people, who lived in **Turova (Truva, Troya)**, who then moved to Europe and brought their Turkic features there [22, p.438-439].

The author, who presented the main document to explain the historical problem called "Narimanov Statement" – the protocol of the joint meeting of the Bureau of the Communist Party of Azerbaijan and the Organization Committee on November 30, 1920 (that protocol is also familiar to rare researchers), explains the mechanism how was falsified this document by the Kremlin, Joseph Stalin and his henchman Sergo Orzonikidze, and later by the Armenian leadership. The main points of that protocol related to our topic are as follows: **q) Zangezur passes to Armenia; d) The mountainous part of Karabakh is given the right to determine its own destiny; i) It is entrusted to Comrade Narimanov to announce the existence of the Soviet coup in Armenia in the Plenum of the Council and to sound the statement.**

The position according to these clauses was reflected in the declaration that was entrusted to Nariman Narimanov at the solemn meeting of the Baku Soviet on the establishment of Soviet power in Armenia on December 1, 1920, and announced by him at that meeting [14]. But the main fraud started after this speech. Rather, the scenario was completed by adding several forgeries to the decisions made by the occupying power: In those days, Ordzhonikidze, the Kremlin's commissar for the South, sent to Moscow on December 2, 1920, added the word "Nakhchivan" to this statement in addition to the word "Zangazur" [15, c. 139-141].

The position according to these clauses was reflected in the declaration that was entrusted to Nariman Narimanov at the solemn meeting of the Baku Soviet on the establishment of Soviet power in Armenia on December 1, 1920, and announced by him at that meeting [14]. But the main fraud started after this speech. Rather, the scenario was completed by adding several forgeries to the decisions made by the occupying power: In those days, Ordzhonikidze, the Kremlin's commissar for the South, sent by his telegram to Moscow on December 2, 1920, added the word "Nakhchivan" to this statement in addition to the word "Zangazur" [15, c. 139-141].

The author states that one of the researchers of this contradiction, Stanislav Tarasov, a pro-Armenian Russian author, was wrong in his first study, but in his second study, he realized the forgery and realized that another forgery came from Stalin: after Ordzhonikidze's telegram, this text was included in Stalin's statement of December 4, 1920 with perfect forgery. As a source, S.Tarasov indicates Stalin's "Selected Works" [16, p. 414]. It also presents Stalin's statement: "On December 1, Soviet Azerbaijan voluntarily renounced the disputed provinces and announced that Zangezur, Nakhchivan, and Nagorno-Karabakh were given to Soviet Armenia." [17, p. 15].

However, the forgery does not end there: this time, Armenia reveals its fraudulent creativity: on June 12, 1921, the Council of People's Commissars of Armenia signed the following decree:

"According to the statement of the Azerbaijan Revolutionary Committee and the agreement between Armenia and Azerbaijan Soviet Republics, Nagorno-Karabakh is an integral part of Soviet Armenia from now on.

In other words, the author cites other evidences and forms an official opinion that when the Kremlin invaded Armenia, it tried to gift Azerbaijani lands to Armenia in order to attract it to its side, and to facilitate this process, allegedly Narimanov (chairman of the Revolutionary

Committee of Azerbaijan) donated these disputed lands to the Armenians”, and puts the responsibility on Narimanov in front of his people.

The author exposed the authors of documents falsified under the leadership of Stalin in the archives of Russia and Armenia, but which today serve only as official sources; and also presented a number of historical documents – clarifying the political school of Narimanov, who was later elected as the first Chairman of the USSR, adhered to internationalism and was also based on healthy and national thinking, and in order to avoid a greater loss in the tumults of history (for example, the loss of the status of an independent republic; the danger of joining Baku region to Russia...) in some issues, he had to choose a relatively acceptable one from several mandatory bad options [19, p. 162-163, 411-419...]. Thus, the author of this article cleans the Kremlin's stain on the Azerbaijani people with the document called "Narimanov statement".

[Let us recall that Narimanov sees the Sovietization of Azerbaijan differently than the Russian model, has a different approach to religion, to small and medium enterprises business, the rights of oppressed peoples, mass education of citizens, internal party democracy, uncompromisingly fights corruption, demands that the Soviet republics should be in an alliance with Russia only on parity beginnings as independent states; he competed with Stalin at the highest level within the party. And 2 years after discussing his letter with these demands to Stalin and the Central Committee of the Bolshevik Party [19, p. 406-410, 420], he was poisoned and killed by Stalin (through Orzonikidze).]

Keywords: Asia, Azerbaijan, Az, Ar, Er, Bay, Gan, modern, science, technology, archive, Narimanov, Ordzhonikidze, Stalin, Russia, Bolshevik, communist, Nakhchivan, Karabakh, Zangezur, "Narimanov statement", Armenia

Tarixin, xüsusilə də qədim tarixi dövr problemlərinin obyektiv öyrənilməsində və araşdırılmasında əsas maneələrdən biri bir sıra hallarda tarixin tərəfli olmasıdır. Təbii ki, tarix tərəfli olduğu, çox zaman siyasiləşdiyi durumlarda elm olmaqdan çıxır. Sovetlər Birliyi dönəmində yazılmış akademik səviyyəli tarixi əsərlərdə həm qədim dövrlərə, həm Sovetlər dövrünə aid, həm də SSRİ-də yaşayan xalqların tarixinə aid məqalə və kitablarda tarixi təhrif etmə, əsassız mülahizələr yayma, tarixi saxtalaşdırma, toponimləri və etnonimləri bilərəkdən yanlış yozma, rusların tarixini daha qədimə bağlamağa çalışma, tatarların, Orta Asiya xalqlarının, azərbaycanlıların tarixi yaşını cavanlaşdırma və s. kimi saysız-hesabsız mənfi örnəklər vardır. Müxtəlif imperialist dövlətlərə xidmət edən tarixi nəzəriyyələr də o qəbildəndir. Tək qütblü dünya yaradaraq tək güc olmaq istəyən imperialist dövlətlərin sifarişli nəzəriyyələri ön sıradadır. Belə dövlətlərin nümunəsində tarixin dərsləri yetərli olmadı, üstəlik bu iddiada olan yeni dövlətlər yarandı. Ona görə, dünyada ədalətin qalib gəlməsi və ədalətli nizamın yaranmasını istəyən hər bir araşdırmaçı öz missiyasının məsuliyyətini dərk edərək gerçəkliyi üzərə çıxarmaq üçün bütün mümkün elmi vasitələrdən yararlanmalıdır.

Araşdırma mövzusu tələblərinə uyğun olaraq, müxtəlif elm sahələrinin dəlillərini və müasir texnologiyaların köməyi ilə əldə etdiyimiz alternativ mənbələr əsəsindəki elmi məlumatları cəlb edərək, Abram, Saray, Aran kimi açar sözlərin izahını kitabımızda [22, p. 440-443] və elmi məqalələrimizdə [23, p.205-221; 24, s.62-77] verdiyimiz üçün, indiki halda **“Azərbaycan”** sözünün elmi izahını və **“Nərimanov bəyanatı”** kimi tarixşünaslıq problemini açma nümunəsini təqdim edirik.

“Azərbaycan” sözünün izahı

“Azərbaycan” sözünün izahına, bütün bir çox tarixi məsələlərin izahı kimi, ən çox yabançı, türkdilli olmayan müəlliflər tərəfindən çaba göstərildiyi üçün qurama, yanlış sonuclara gətirmişdir. Bir sıra əski və çağdaş alimlər, o sıradan Strabon, Xronik Karki, İbn Mükaffa, Müqəddəsi, İbn al-Faqix, Yaqut Həməvi, Həmdullah Mustofi, M.Ştrek, T.Holsk, E.Xersfeld, F.Qrişman və b. “Azərbaycan” sözünün adam adı “Atropat”dan yarandığını bildirirdilər [1, s.82; 2, s.13].

X.Bartolome, M.N.Boqolyubov kimi bir sıra alimlər isə “Azərbaycan” yer adını “Avesta”dakı od tanrısı “atar”la bağlamağa çalışırlar [2, s.13]... “Elə araşdırıcılar da var ki, heç bir əsası olmadan “Azərbaycan” sözünü irandilli sayır: İran sözü “Atarpat”ın mənsubluq affiksi İran dilindəki “kan”dan əmələ gəlir” («От иранской имени Атарпата –суффикс принадлежности «кан»а») [2, s.13-14]... Ancaq XIII yüzilliyin tanınmış alimi Rəşid-əd-din, XVII yüzillikdə İbn Xələf-ət Təbrizi “Azərbaycan” sözünü haqlı olaraq Azərbaycan dilinin aid olduğu dil qrupu sözü kimi izah etməyə çalışmışlar [2, s.14]...

Elmi araşdırmaları ilə Orta Asiya və Türkiyədə böyük nüfuz qazanmış görkəmli alim Mirəli Seyidovun tamamilə haqlı olaraq bildirdiyi kimi, “Azərbaycan” sözünün açımı xalqımızın etnik-soy kimliyini aydınlaşdırmağa yardım edir.

Azərbaycan sözü “Azər//Azəri” haqqında R.Qurbanın elmi yanaşmasını [3, s. 85] doğru sayan professor Mirəli Seyidov onun bir çox dillərdən materiallar cəlb etməklə gerçək sonuca yetişdiyini önə çəkir: “Azər” –“az” və “ər” tərkibindən ibarətdir və “az kişisi”, “az adamı” deməkdir [2, s.15]. R.Qurban Mahmud Qaşğari sözlüyünə və türk dillərinə dayanaraq, “az”ın – “yaxşı niyyət”, “uğurlu”, “tale” kimi anlamları olduğunu göstərir [4, s.108].

M.Seyidov bildirir ki, “Deyəsən, “Az” çox uzaq keçmişdə uğur, yaxşıistərlilik tanrısının adı imiş. Elə buna görə də qəbilə özünü onqonu, tanrısı “Az”ın adı ilə adlandırmışdır.” [2, s. 15].

R.Qurbanın “Azərbaycan” sözünün açımı ilə bağlı Azərb. SSR EA Xəbərlərində yayınlanması gözə alınan yorumunun ardı (II yazı) ortada olmadığından (güman ki, senzura yasağına görə) bu qonuda sonrakı ünlü uzmanların araşdırmalarına üz tuturuq: “Azərbaycan” sözünün açımını verməzdən öncə Mirəli Seyidov və Firudin Ağasıoğlu “Azərbaycan” sözünün bir necə dildə yazılışını göstəririlər. Mirəli Seyidova görə, “Azərbaycan” sözünün ilkin yazılışı “Azərbayqan (can)” şəklində imiş. [Haşiyə: Ərəb istilasından sonra bir kəsim sözlərin bənzər şəkilçilərində M.Seyidovun göstərdiyi dəyişikliklər baş vermişdir: Andiğan/Andukan → Andican/Əndican, Qurqan → Curcan, Balasağan → Balasacan, Ərzinqan → Ərzincan, Diliqan → Dilican, Zənqan → Zəncan... İbn Xordadbeh və b. bilim adamları bu yöndə bir sıra örnəklər sunmuşlar (5, s. 109). Ərəb, fars, latın, erməni dilində də “Azərbaycan” sözünün “qan//kan” fonetik tərkibi var. “Azərbayqan (can)” sözünün tərkibi olan “can” əski fars və erməni qaynaqlarında “qan” şəklindədir. Ərəb, fars dillərində də bu sözün “az”la başlaması belə fikir yürütməyə imkan verir ki “az” tərkibi doğmadır, yəni “Azərbaycan” sözünün ilkin yazılışı bu ünsürlə (sözlə) başlayır, yabançı etkilərə uğramış başqa süni/qurama yozumlara yer qalmır (özəlliklə də “Az” sözünün anlamını görkəmli rus alimlərinə/bilim yazarlarına/bilginlərinə (S.Y.Malov, V.V.Bartold) dayanaraq açıqladıqda). Ünlü bilgin Mirəli Seyidov, ən doğru seçim kimi, “Azərbaycan”= “Az+ər+bay+qan/can/” halının üzərində dayanır [2, s.15-16].

Mirəli Seyidova görə, “Azərbaycan/Azərbayqan” sözünün ilk “Az” tərkibi əski türkdilli qəbilənin adıdır. “Az” qəbiləbirləşməsi, xalq [S.Y.Malov Az-ları xalq sayır [6, c. 362]. – // az – народ, КТ, 38: Çolgi az – степные азы. Топ., 23. Азский (конь), КТ, 45(5). Акад. В. В. Бартольд [7, с. 21] указывал на возможность сопоставления этих азов – с азийцами, поколением тюргешей Семиречья (V III в.)] adı ilə “Gültəkin”, “Tonyuquq” və b. abidələrdə qarşılaşırıq. “Gültəkin” abidəsinin 23-24-cü xəttində “Az”-ların adı ilə bağlı çöl yad edilir: “Çöldi Az ari bultym. Özüm Az jirim, anı bil”. [6, c. 62]. [Azərbaycancası: “... Az çöllərində Az ər (kişi) tapdım. Bil, mənim yerim Azdır.”] Belə aydın olur ki, bu abidədə birinci Az yer adı (çöl), ikinci Az isə insan, qəbilə adı kimi işlənmişdir. “Gültəkin” abidəsindən bəlli olur ki, Az-lar atlarını da öz adları ilə adlandırmışlar. [7, c.32 —: (45)(5) Kyl TiriH Азман акыг; биHиn, оп л ажу тагд), алты әpir санчды, су т а п с ш т а jиTiH'i 'әpir кылычлады; әKиHTи Кушла^акда ад1з биplә суцуншмгз, Kyl TiriH Аз jar;би3биH2 биHиn оп лажу Tәrin, бир әpir, санчды. — Rusçaya çevirmәsi: <45> (5) Кюль-Тегин, сев на белого (коня) Азмана, бросился в атаку, шесть мужей он заколол, в свалке он порубил мечом седьмого. Во второй раз мы сразились с эдизами при Кушлагаке. Кюль-Тегин, сев на своего бурого азского (коня) и бросившись в атаку, заколол одного мужа [6, с.42].]

Ünlü dilçi uzman Mirəli Seyidov yazır ki, "Azərbaycan" sözünün "ar//ər" tərkibi haqda araşdırıcılar arasında fikir fərqliliyi çox olsa da, onlar sırasından D.Y.Yeremeyev kimi bəzi bilginlər bu sözü İran, Hind-Avropa kökənli olduğunu güman etsə də, əslində "ar//ər" və onun "ir//ır" fonetik səslənməsi bir çox türk dillərində olmuşdur və indi də vardır. Ünlü bilginlərdən V.K.Kelmakov "ar//ər"-i türk dillərindən ayırmağa, onu yad dillərin qucağına atmağa çalışan bilim adamlarına etiraz edərək, onların elmdən uzaq söz açımlarına, yozumlarına qarşı çıxmışdır:

" (...) Keçən yüzillikdə "ar" sözünün açımı –etmologiyası ilə daha çox etnoqraf və tarixçilər məşğul olurdular, buna görə də doğal olaraq, onların bu sözün mənşəyi haqda fikirləri sözlərin təsadüfi forma oxşarlığı üzərində qurulmuşdur.

"...ar" sözünün türk "ar"-ı mənşəli olduğunu elmi baxımdan tamamilə düzgün sayırıq." [8, c. 191]. Mirəli Seyidovun araşdırmalarından aydın olur ki, hələ V.K.Kelmakovdan qabaq V.V.Radlov [9, c. 1456], L.Budaqov [10], Jiran Makloş [11, oldal 224] və b. da "ar//ər//ir//ır"-ı türk mənşəli söz saymışlar. Türk dillərindən "ar//ər"-i azərbaycanlılar "ər", "kişi", "igid"; çuvaşlar, türkmənlər "insan", "kişi", özbəklər, qırğızlar, tatarlar, başqırdlar "kişi", "igid"; Qaraqalpaqlar "kişi" mənasında işlədirlər. "Ar" türk dillərində "qırmızı" anlamını da verir [12, c.50]. O halda "Az-ər (ar)" "yaxşıistər qırmızı" mənasını verə bilər, Mirəli Seyidovun gümanına görə, bununla da Günəş göz qarşısına gətirilmişdir. O üzdən ki, Günəş yaxşıistər, yaradıcı sayılmışdır. Yuxarıda da bildirdiyimiz kimi, "ar//ər"-in bir sıra türk dillərində "ir//ır" fonetik səslənməsi və onun da "kişi-insan", "ər", "igid" və b. anlamları vardır [9, c. 1456]. Türk dillərində "igid", "kişi" anlamında olan "ar//ər//ir//ır" bir sıra sözlərə qoşularaq qəbilə, qəbiləbirləşməsi, onqon, tanrı adı yaratmışdır. Örnək üçün: Av-ar, Xəz-ər, mac-ar, Suv-ar (su-bar), Qac-ar, Qab-ar, qutsal adlardan Xız-ır (ir//ar//ər -in fonetik səslənməsi kimi). Erkən, orta yüzillik qaynaqlarından, "Gültəkin" anıtından və b. abidələrdən, çağdaş türk dillərindən başqa örnəklər də gətirmək sorun deyil [2, s.17-18].

Bizim özgür olaraq, gəldiyimiz sonuca görə, **Asiya/Aziya** sözü də başlanğıcını, bənzər olaraq, "Az" sözündən götürmüşdür. Doğrudan da: *Asiya//Aziya = As+iya//Az+iya/* (əslində türk səslənişinə görə: *As+ya* olmalıdır) [Bolqar— Bolqariya; Rumın —Rumıniya; Eston — Estoniya, Alman//German —Almaniya//Germaniya və b. kimi]. Birinci hissə etnos, boy adı, ikinci hissə ölkə anlamını yaratmaq üçün yunan, latın dillərindən alınmış şəkilçi: *-iya// -ya*. Başqa sözlə, quşqusuz olaraq demək olar ki, *Asiya//Asiya* "Az"ların// "As"ların ölkəsi, yeri anlamındadır. "Az"lar tarixi gəlişmə sürəci ilə "Az+ər"lərə, "H(az)+ər" = "Xəzər"lərə, "K(az)+ax(ğ)"lara və b. ayrı-ayrılıqda ayrıca *etnik identifikasiya /boy özləşməsi/* qazanmışdır. Və o da görünür ki, ən əski çağlarda "Az"ların o qədər uğuru, ucalanmış (yaxşı) şanı... olmuşdur ki, indiki Asiya yerində bu göstəricilər, gerçəkliklər ölkəadına, ölkəadından da genişlənərək qitə adına keçə/verilə bilmişdir. [Fransada türk yazıları, İtaliyada etrusk mədəni abidələri, başqa Avropa ölkələrində türk mədəniyyəti izləri, Troyada (Turovada – X.İ.), Skandinaviyada, Baltıqyanı ölkələrdə *Az//As* izləri, güman etməyə əsas verir ki, bəlkə də qədimlərdə Avrasiya özü bütövlükdə **Az//As**-ların yerləşmə alanlarından imiş—X.İ.]

Çağdaş dönmənin türk xalqları tarixinin ən ünlü bilginlərindən Firudin Ağsioğlu isə daha çox "Azərbaycan" = "Az+ər+bi+qan" = "Az+ər+bi/bay+qan/can" halını daha uyğun sayır. O, "Azərbaycan" sözünü "Az+ər+bi+qan" kimi açıqlamaq istərkən buradakı *-bi* şəkilçisinin anlamı haqda belə yazır:

Ön Asya izoqlosları içində *-ba/-ma, -be/-me/-pe, -bi/-pi, -bu/-mu* allomorfları ilə görünən *-bi* şəkilçisi diqqət çəkir. Azər xalqının tarixində aparıcı yer tutan *kaspi, azərbi* boyadı da *-bi/-pi* formantı ilə düzəlmişdir. *Kaspi—Kas eli, Azərbi—Azər eli* anlamına gəlir... Azərbaycanda *Kaspi* yeradı, Altayda *Kaspa* (=Kas-ba/bi/pi) çayı vardır [5, s. 71-72].

Biz, Sovetlər Birliyindən ayrılmış respublikaların tarixi araşdırmaçıları üçün arxivlərdə işləmək də yeni texnologiyalar sırasındadır, çünki Stalin dövründəndən başlayaraq, ölkəmiz qapalı, təcrid olunmuş halda yaşamış, arxivlərə giriş məhdudlaşdırılmış, bir çox önəmli mövzular üzrə

fondlar üzərində işləmək yasaqlanmışdı. SSRİ dağıldandan sonra bu yasaqlar xeyli dərəcədə aradan qalxmış, gərək olduğu zaman bir elmi problemin açılmasında həm öz, həm başqa postsovet respublikalarının, həm də bir çox başqa xarici ölkələrin arxiv və elmi mərkəzlərindən önəmli məlumatlar toplamaq olur. Son onilliklərdə bəzi arxiv materiallarının, arxiv nəşrlərinin internet resursları sırasına daxil edilməsi bu sahədə yeni texnologiyalar sırasında olduqca səmərəli sayıla bilər. Bu vasitələrlə biz də ABŞ və Almaniya arxivlərindən öz mövzumuz üçün çox əhəmiyyət daşıyan sənədlərin surətini almışıq. Xarici ölkələrin mərkəzi kitabxanaları ilə yeni kitabların mübadiləsi təcrübəsi də bizim ölkəmizdə son onilliklərin təcrübəsi kimi yadda qalıb. Yeni texnologiyalar sırasında medianın rolu əvəz edilməzdir. Yeni əsərlərin təqdimi, paylaşımı, bir qisim problemlərin işıqlandırılması vasitəsilə hansısa açılmamış başqa tarixi problemin müzakirəsinə səbəb olaq və s. kimi...

Azərbaycan, SSRİ və dünya tarixşünaslığı üçün maraq kəsb edən məsələlərdən biri olaraq Zəngəzur məsələsini saymaq olar. Öncəliklə onu bildirək ki, I Dünya Savaşı sonuna doğru Rusiyada Bolşevik çevrilişi nəticəsində V.Lenin Rusiyanın çar dövründəki imperialist niyyətlərindən geri çəkilməklərini bildirdi və Almaniya və müttəfiqləri ilə 3 mart 1918-ci il tarixində sülh sazişi imzaladı. Həmin sazişdə Almaniyanın tələbi ilə ucqarlardakı Rusiya xalqlarının öz müqəddəratını təyin etmə hüququ V.Lenin hökuməti tərəfindən tanındı. Məhz bu sazişdəki öhdəliklərin əsasında Paris Sülh Konfransında Azərbaycan, Ermənistan, Gürcüstan, Polşa və b. keçmiş Rusiya vilayətləri ayrıca dövlət kimi de-fakto tanınmışdı. Yeni dövlətlərin ərazilərinin təsdiqi zərurəti yaranmışdı və belə bir dövərdə Ermənistanla ona qonşu olan dövlətlər arasında ərazi mübahisələri yaranmışdı. Ermənistan Azərbaycanın Qarabağ, Zəngəzur, Naxçıvan və b. vilayətlərini, Gürcüstanın Ahalkələk, Borçalı bölgələrini, Türkiyənin isə Doğu Anadolu və Kilikiya vilayətlərini tələb edirdi. Bu səbəblə də Ermənistanla bu ölkələr arasında müəyyən zaman aralıqlarında savaşlar gedirdi. Məlumat üçün xatırladaq ki, erməni xalqının əsas hissəsi Friqiyadan köç edərək b.e.ö. VII yüzillikdə Urartuya – indiki Türkiyə Respublikasının Van və b. vilayətlərinin yerləşdiyi Doğu Anadolu bölgəsində məskunlaşmışdılar. XIX əsrin ilk illərində Gürcüstan, 1804-1827-ci illərdə isə Azərbaycan xanlıqları Rusiya tərəfindən işğal olunduqdan sonra isə bu torpaqlara İran və Türkiyədən ermənilər köçürülməyə başlamış, mərhələlərlə onların sayı İrəvan quberniyasında və Qarabağ xanlığı ərazisinin dağlıq hissələrində, habelə Gürcüstanın Ahalkələk bölgəsində əhəmiyyətli, bəzən də azacıq üstünlük yaradan say təşkil etmişdi.

İndi isə müasir elmi texnologiyaların köməyi ilə aydınlaşdırdığımız problemlərdən birinin açılışına diqqət edək:

“Nərimanov bəyanatı”

Azərbaycan alimlərinin böyük əksəriyyətinin və milli ziyalılarının görkəmli dövlət adamı, ictimai-siyasi xadim, Azərbaycan İnqilab Komitəsinin Sədri Nəriman Nərimanov haqqında bir qınaq kölgəsi dolaşmaqdadır: guya o, 30 noyabr 1920-ci ildə bəyanat verərək, Zəngəzurun və Naxçıvanın Ermənistana bağışlanması, Dağlıq Qarabağın isə müstəqilliyinə –dolayısıyla, Azərbaycandan ayrılmasına razılıq bildirib. Bunun da sayəsində “Zəngəzur Azərbaycandan qoparılarq Ermənistana birləşdirilib”.

Bu ittihamda əsas şübhə kölgəsini aradan qaldırmağın düzgün yolu AR Siyasi Sənədlər və İctimai Hərəkətlər Arxivində saxlanan AKP Bürosunun və Təşkilat Komitəsinin 30 noyabr 1920-ci il tarixli birgə iclasının protokolu ilə tanış olmaqdır. Bu haqda eyni zamanda başqa detallara, həmçinin Qarabağ və Naxçıvan məsələləri ilə bağlı Nərimanovun fəaliyyətini əks etdirən digər sənədlərə də diqqət edərək aydınlıq gətirək.

AKP Bürosunun və Təşkilat Komitəsinin birgə 30 noyabr 1920-ci il tarixli iclasının protokolundan bəzi məqamlar:

İştirak edirlər: Nərimanov, Kaminski, Stasova, Orconikidze, Qasımov, Qarayev, Sarkis, Yeqorov, Hüseyinov, Serebrovski yoldaşlar.

Soydaşlarımız sırasından Əliheydər Qarayev keçmiş eser – sonradan bolşevik olub, Mirzə Davud Hüseynov keçmiş müsavətçi –sonradan, 1920-ci ilin fevralında AKP-nin I katibi olub! Bu siyahıda adı keçən, ictimaiyyətin tanımadığı Qasimov milli yönümlü və qərəzdən uzaq kommunist kimi tanınır və Nərimanovun ardıcıllarıdır. Yerdə qalanların mövqeyinə etibar yoxdur, çünki yadellidirlər. Ancaq protokolda kimin necə səs verməsi göstərilir, sadəcə səs çoxluğu ilə aşağıdakı qərarlar alındığı bildirilir:

Dinləndi: Ermənistanda Sovet hakimiyyətinin elan edilməsi haqqında Erməni İnqilab Komitəsinin teleqramı.

Qərara alındı:

a) (Ermənistan) Daşnak səfirliyinin aparatı Ermənistan Mərkəzi Komitəsi və Erməni İnqilab Komitəsi vasitəsilə sovet nümayəndəliyinə verilir. Konkret olaraq, bu göstərişi yerinə yetirmək yoldaş Hüseynova tapşırılır.

b) Şura və İnqilab Komitəsi adından Ermənistan hökumətinə bəyannamə ilə müraciət edin.

c) Salam göndərilsin. Qeyd olunsun ki, Sovet Azərbaycanı ilə Sovet Ermənistanı arasında heç bir sərhəd yoxdur.

q) Zəngəzur Ermənistana keçir

d) Qarabağın dağlıq hissəsinin öz müqəddəratını təyin edə bilmə haqqı verilir.

f) Sovet Azərbaycanı Sovet Ermənistanı ilə ayrılmaz hərbi və iqtisadi ittifaqa girir (xüsusən də nefti qeyd edin).

g) Hərbi-Dəniz Xalq Komissarlığı Ermənistana qarşı hərbi əməliyyatları cəbhə boyu dayandırmaq barədə əmr vermək.

i) Şuranın Plenumunda Ermənistanda Sovet çevrilişinin olmasını bildirmək və bəyanatı səsəndirmək yoldaş Nərimanova həvalə olunur.

Mərkəzi Komitənin katibi Q.Kaminski” [21; 13].

Bu, arxiv sənədindən edilmiş çıxarışdan görüldüyü kimi, 30 noyabr iclasında Naxçıvanın adı çəkilmir (o haqda heç müzakirə getmir), Dağlıq Qarabağla bağlı isə referendum haqqı tanınır (Dağlıq Qarabağın Ermənistana verilməsi gündəmə gətirilmir).

İştirakçıların kimliyindən asılı olmayaraq, burada aydın olan məsələlərdən biri bu idi: Qafqazda ermənilərlə dinc qonşuluq prinsiplərinə riayət etməklə yanaşı, onların əsassız iddialarını cilovlayıb ədalətli nizama tabe tutmaq düşüncəsinə sahib olan Nərimanov burada Qasimovla birgə milli kommunistlər kimi, özündən asılı olmayaraq, mövqe baxımından 2/8 nisbətində azlıqda idi. Ermənistana “salam” göndərməkdən tutmuş, neft və Ermənistanla iqtisadi-hərbi münasibətlər Kremlin təyin etdiyi bolşevik rəhbərliyin səsverməsi yolu ilə müəyyən edilirdi. O səsvermədə yadellilərin üstün iştirakı isə işğalçı tərəflə bağlı amil idi.

Yeri gəlmişkən, bu mövqe 1920-ci il dekabrın 1-də Bakı Sovetinin Ermənistanda Sovet hakimiyyətinin qurulmasına dair təntənəli iclasında səsəndirilməsi Nəriman Nərimanova həvalə edilən və onun həmin iclasda elan etdiyi bəyannamədə də öz əksini tapmışdır. [14]. Ancaq əsas saxtakarlıq bu çıxışdan sonra başlamışdır. Daha doğrusu işğalçı gücün aldığı qərarlara bir neçə saxtakarlıq da əlavə olunaraq ssenari tamamlanmışdır: Həmin günlər Kremlin Cənub üzrə komissarı Orconikidze özünün Moskvaya göndərdiyi 2 dekabr 1920-ci il tarixli teleqramında bu bəyanata Zəngəzur sözünün yanında bir Naxçıvan sözü də əlavə etmişdir. [15, c. 139-141].

Qeyd edim ki, bizdən daha öncə bu ziddiyyəti araşdıran ermənipərəst Rusiya müəllifi Stanislav Tarasov ilk tədqiqatında yanılsa da, ikinci araşdırmasında saxtakarlığı anlayaraq, növbəti bir saxtakarlığın da Stalindən gəldiyini anlayır: Orconikidzenin teleqramından sonra bu mətn Stalinin 4 dekabr 1920-ci il tarixli bəyanatında mükəmməl saxtakarlığı ilə yer alıb. Qaynaq olaraq, o, Stalinin “Seçilmiş əsərləri”ni göstərir [16, c. 414]. Həm də necə: “1 dekabrda Sovet Azərbaycanı könüllü olaraq mübahisəli vilayətlərdən imtina edərək, Zəngəzurun, Naxçıvanın, Dağlıq Qarabağın Sovet Ermənistana verildiyini bildirir.”[17, s.15].

Ancaq saxtakarlıq bununla bitmir: bu dəfə də Ermənistan öz saxtakar yaradıcılığını ortaya qoyur: 12 iyun 1921-ci ildə Ermənistan Xalq Komissarlar Söveti belə bir dekret imzalayır:

“Azərbaycan İnqilab Komitəsinin bəyanatına və Ermənistan - Azərbaycan Sovet Respublikaları arasındakı razılığa görə, bundan sonra Dağlıq Qarabağ Sovet Ermənistanının ayrılmaz hissəsidir.

Ermənistan Xalq Komissarlar Sövetinin Sədri: Al.Myasnikov (Al.Martuni)
Ermənistan Xalq Komissarlar Sövetinin Katibi: M.Karabekyan” [18].

Yuxarıdakı saxtakarlığın yol xəritəsindən göründüyü kimi, Nərimanov “Naxçıvan” sözünü işlətməmiş, bununla yanaşı, o, AKP Bürosu və Təşkilat Komitəsinin 30 noyabr 1920-ci il tarixli Zəngəzurla bağlı və b. qərarlarının müəllifi deyil, əksinə orada ölkəsinin mənafeyinə zidd qərarlarla sonadək mübarizə aparmışdır. Naxçıvanı Atatürk hökuməti ilə strateji tərəfdaşlıq fəaliyyəti sayəsində Azərbaycanın tərkibində saxlatdırmışdır. Bu qərarın alınmasında Türk ordusu əsas rol oynamış, ikinci rol da həm Naxçıvan əhalisinin dəyanətinə, həm də Nərimanov və Şaxtaxtinskiyin fəaliyyətlərinə bağlıdır. (Ümumilikdə Naxçıvan mövzusu çox geniş izahat tələb edir və bizim kitablarımızda da xeyli dərəcədə yer alır.) [19, s.169-186].

İndi Qarabağ uğrunda mübarizəyə diqqət yetirək:

Qafqaz Bürosunun 4 iyul 1921-ci il tarixli yığıncağında Kremlin təzyiqi və Stalinin birbaşa iştirakı ilə Dağlıq Qarabağın Ermənistana verilməsi haqda qərarı qəbul olunur. Nərimanov qərarla razılaşmayaraq dərhal daha yüksək instansiyaya, RSDFP-nın Mərkəzi Komitəsinə, Leninə müraciət edərək qərarı dəyişdirməyə nail olur.

5 iyul 1921-ci il.

İştirak edirlər: Stalin (Mərkəzin nümayəndəsi), Orconikidze, Maxaradze, Kirov, Nazaretyan, Oraxelaşvili, Fiqatner, Nərimanov, Myasnikov; Az SSR Xalq Xarici İşlər Komissarı M.D.Hüseynov.

Göründüyü kimi, burada Nərimanov mövqə baxımından tək olsa da, Mərkəzdə ədalətpərəst imici, nüfuzu, habelə iradə və biliyi hesabına qalib gəlir. (Nərimanovun 1920-ci ildən bəri mövqeyi bundan ibarət idi ki, keçmiş Azərbaycan xanlığının ərazisi olan Qarabağ Vilayətində ermənilər və azərbaycanlılar arasında referendum keçirilsin. Ancaq Kreml öncə tələb edirdi ki, yalnız ermənilərin toplu yaşadığı Dağlıq Qarabağ hissəsində səsvermə təşkil olunsun. Sonra isə Qafqaz Bürosunun 4 iyul 1921-ci il tarixli yığıncağında Dağlıq Qarabağın Ermənistana birləşdirilməsi haqda qərar çıxarmışdı.) [20, s.15].

O dövrdə başqa ərazi məsələləri də həll olunmamışdı. Məsələn, Qazax qəzası ilə, Göyçə ilə bağlı və s.

Əslində bolşevikləşmədən sonra da Azərbaycan hökuməti Nərimanovun öndərliyi ilə millətçi erməni dəstələrinin hərbi təcavüzünə və Ermənistanın torpaq iddialarına qarşı prinsipal mövqedə dayanaraq bir müddət ciddi mübarizə aparmışdı. Ancaq şərtlər Azərbaycanın xeyrinə olmadığı üçün Dağlıq Zəngəzurla bağlı itki qaçılmaz oldu. Xatırladaq ki, hələ Müsavat hakimiyyəti dönəmindən Nərimanov Ermənistanın təcavüzünə qarşı fəal çıxış edir, Moskva hökumətinə müvafiq arayışlar göndərirdi. Onun Q.Çiçerinə yazdığı (surəti Vladıqafqaza: Orconikidzeyə) belə məktubların birinə hətta Qafqazın kommunist liderləri Mdivani, Mikoyan, Nuricanyan da imza atmışdılar. Ermənistan Xarici İşlər Naziri Ohancanyanın Sovet Azərbaycanı hökumətinin 8 may 1920-ci il tarixli notasına cavabı da Nərimanov hökumətinin əsl mövqeyini ortaya qoyur. Həmin notadakı faktlara Ohancanyan əməli və punktual cavab verə bilmədiyi üçün mətləbdən yayınaraq yazır: **“İndi Azərbaycanda Sovet çevrilişinin məqsədi aydınlaşır. Bu çevriliş bəy-xan müsəlman hökumətini guya inqilabi sosialist hökuməti ilə əvəzləyib, əslində isə Azərbaycanın dövlət həyatında və siyasi həyatında heç bir niyyət dəyişikliyi yoxdur. Azərbaycanın guya inqilabi və sosialist olan hökumətinin ilk addımları Qarabağ və Zəngəzur ermənilərinin kölələşdirilməsinə yönəlib...”** Bu və bizim kitablarımızda yer alan çox sayda tarixi sənədlər də Nərimanov siyasi məktəbinin beynəlmiləçiliyə sadıq qalaraq, həmçinin sağlam və milli təfəkkürə söykəndiyini, ancaq tarixin keşməkeşlərində daha böyük itkiyə (məsələn, müstəqil respublika statusunun itirilməsi; Bakı

bölgəsinin Rusiyaya birləşdirilməsi təhlükəsi...) getməmək üçün bəzi məsələlərdə bir neçə məcburi pis variantdan nisbətən məqbulunu seçmək zorunda qaldığını sübut edir [19, s.162-163, 411-419...].

Yuxarıdakı nümunələr kimi, ziddiyyətli tarixi problemlərin səmərəli araşdırması üçün, çoxsaylı faktlardan da görüldüyü kimi, çox sayda elm sahəsi nəticələrinin və ya çox müxtəlif, alternativ mənbələrlə çalışmağın zəruri olduğu öz təsdiqini tapır.

Ədəbiyyat / Literature:

1. М.Азерлу, Т.Мүсеви, З.Ямпольский. О слове « Азербайджана», Azərb. SSR EA Məruzələri, XXX с., 1974.
2. Mirəli Seyidov. Azərbaycan xalqının söykökünü düşünərkən. Bakı, Yazıçı, 1989. – 496 s.
3. R.Qurban. “Azəri”, “Atropaten”, “Azərbaycan” sözləri haqqında, Azərb. SSR EA Xəbərləri, (Ədəbiyyat, dil və incəsənət) seriyası, 1968, №3
4. Maxmud Kaşkarıi. Turkii suzlar devoni., Toşkent, 1960–1963, с. 1–3; 1960, I с.
5. Firudin Ağasioğlu. Azərbaycan türklərinin islamaqədərki tarixi. (Doqquz bitik); II bitik: Tarixi coğrafiya. Bakı, “Ağrıdağ” nəşriyatı, 2014.– 280 s.
6. С.Е.Малов. Памятник древнотюркской письменности. Издательство Академии Наук СССР, Москва, –Ленинград, 1951. – 446 с.
7. В.В.Бартольд. Очерк истории Семиречья, Фрунзе : Киргизгосиздат, 1943. – 104 с.
8. Кельмаков В. К. Происхождение и первые упоминания этнонима ар // Этнонимы: Сборник статей / Институт этнографии им. Н. Н. Миклухо-Маклая АН СССР; Отв. ред. В.А. Никонов. — М.: Наука (Главная редакция восточной литературы), 1970. — С. 191.
9. В.В.Радлов. Опыт словаря тюркских наречий., 1893, СПб., т. I, часть II
10. Л.Будагов. Сравнительный словарь турецко-татарских наречий., Типография Императорской Академии Наук, СПб., т. I, 1869 – 829 стр.
11. Zriai Miklos. Finnigesrokonsugunn., Budapest, 1927 – Bax: Mirəli Seyidov. Azərbaycan xalqının söykökünü düşünərkən. Bakı, Yazıçı, 1989. – 496 s.
12. Древнетюркский словарь. Изд-во «Наука», Ленинградское отделение, 1969 – (XXXIX+678) стр.
13. Станислав Тарасов: Где акт Аз ССР от 1 декабря 1920 года о вхождении Карабаха в состав Армении?, 22 июля 2011 – <https://regnum.ru/news/polit/1428130.html> / *reference date 08.09.2022/*
14. Газета "Коммунист", 2 декабря 1920.
15. Сборник избранных речей и статей Г.К. Орджоникидзе, изданный в Москва, 1956 г.
16. И. В. Сталин. Сочинения. Т. 4.
17. Ülviyyə Şükürova. Nərimanov Naxçıvanı ermənilərə vermək istəyib? (III hissə), Hürriyyət” qəzeti, Bakı, 23 may 2023.
18. "Хорурдаин Аймастан", 19 июня 1921 года.
19. İsmayıl Xaqani. “Erməni məsələsi” və türk-müsəlman soyqırımı. Bakı: Nərgiz nəşriyyatı, 2012, 508 səh.
20. Ülviyyə Şükürova. Nərimanov Naxçıvanı ermənilərə vermək istəyib? (IV hissə), Hürriyyət” qəzeti, Bakı, 23 may 2023
21. ПААФ ИМЛ. Ф.1. СП.74. Д.124. Л.58-59.
22. İsmail Khagani. Prehistoric Events in Primary Sources. Baku, “Müəllim” Publishing House, 2021, 462 p-s. / Xaqani İsmayıl. “Öntarix olayları ilkin qaynaqlarda”. – Bakı: “Müəllim” nəşriyyatı, 2021. – 462 s.
23. İsmail N. Khagani. THE QUALITY OF HISTORICAL RESEARCH CAN AFFECT REGIONAL PEACE PROCESSES: TURKICNESS OF THE SUMERIANS AND PEACE IN THE EASTERN

MEDITERRANEAN AREA., Publisher.agency: Proceedings of the 4th International Scientific Conference «Theoretical Hypotheses and Empirical results» (September 1, 2023). Oslo, University of Norway, 2023. 222 p.

24. İsmayıl Xaqani. Sumerlər bir qədim öntürk boyudur. AMEA Nəsimi ad. Dilçilik İnstitutu, “Dilçilik araşdırmaları” elmi jurnalı, 2023, №2.

Qısaltmalar / Abbreviations:

p. – page

с – страница

ПААФ ИМЛ. – Партархив Азербайджанского филиала Института марксизма-ленинизма при ЦК КПСС (ПААФ ИМЛ при ЦК КПСС)

SSRİ – Sovet Sosialist Respublikaları İttifaqı

Az SSR – Azərbaycan Sovet Sosialist Respublikası

Аз ССР – *kirill əlifbası ilə*: Azərbaycan Sovet Sosialist Respublikası

AR – Azərbaycan Respublikası

AKP – Azərbaycan Kommunist Partiyası

RSDFP – Rusiya Sosial-Demokrat Fəhlə Partiyası

s. – səhifə (azərbaycanca); sayfa (türkcə)

X.İ. – məqalə müəllifinin adının qısaltılmış forması (qeyd və şərhlər zamanı yazılışı)

Medical Sciences

UDC: 618.19-006.6-07-036.22 (574)

BREAST CANCER: EPIDEMIOLOGY, ALGORITHM AND SCREENING RESULTS IN THE REPUBLIC OF KAZAKHSTAN

Arman A. Khozhayev

Professor of the Department of Oncology named after S.N. Nugmanov, Asfendiyarov Kazakh National Medical University, Almaty, Republic of Kazakhstan

Ayaulym M. Nurmukhambet

Resident oncologist, Asfendiyarov Kazakh National Medical University, Almaty, Republic of Kazakhstan

Shuak K. Mukhtar

Resident oncologist, Asfendiyarov Kazakh National Medical University, Almaty, Republic of Kazakhstan

Nursultankhan E. Akkazin

Resident oncologist, Asfendiyarov Kazakh National Medical University, Almaty, Republic of Kazakhstan

Zhanara K. Mayukova

Resident oncologist, Asfendiyarov Kazakh National Medical University, Almaty, Republic of Kazakhstan

Moldir K. Yelbassy

Resident oncologist, Asfendiyarov Kazakh National Medical University, Almaty, Republic of Kazakhstan

Nazerke K. Turarbekova

Resident oncologist, Asfendiyarov Kazakh National Medical University, Almaty, Republic of Kazakhstan

Adelya A. Samikhova

Resident oncologist, Asfendiyarov Kazakh National Medical University, Almaty, Republic of Kazakhstan

Aibek B. Bekali

Resident oncologist, Asfendiyarov Kazakh National Medical University, Almaty, Republic of Kazakhstan

Annotation: This scientific and analytical work reflects the morbidity and mortality rates from breast cancer in the context of the regional characteristics of our country. A detailed step-by-step algorithm of mammographic screening is presented and the principles of organization and diagnostic capabilities of this method for the active detection of precancerous diseases and breast cancer in clinically asymptomatic individuals are reflected. In addition, the results of the screening program used and its effectiveness were analyzed. It is shown that in order to achieve a productive result, information, maximum coverage of the population and strict adherence to the methodology of this type of screening are necessary.

Key words: breast cancer, epidemiology, morbidity, mortality, screening, mammography.

The concept of "Screening" in medicine (English screening - screening) is a method of actively identifying individuals with any pathology or risk factors for its development, based on the use of special diagnostic studies, including testing, in the process of mass examination of the population or its individual contingents. The key concept of screening is the detection of oncopathology at a stage when further treatment changes its prognosis and further clinical course. It is carried out for the purpose of early diagnosis of a disease or predisposition to it, which is necessary to provide timely treatment and preventive care. Screening results are also used to study the prevalence of the disease (or group of diseases) being studied, risk factors for its development, and their relative importance. The main conditions for screening are the availability of trained personnel and a standard approach to identifying the trait under study and evaluating the results. The applied methods should be sufficiently simple, reliable and reproducible. At the same time, it is necessary that they have sufficient sensitivity and high specificity [1,2,3].

Breast cancer is in the 1st ranking place in the structure of the frequency of malignant tumors of both sexes of the population with a specific weight of 15.4% (2020 - 14.5%). This situation has been stable since 2004. In addition, breast cancer occupies the 1st ranking place and constantly remains at this position in the structure of female oncopathology.

The incidence rate of breast cancer per 100 thousand population in 2021 in the country as a whole increased to 26.3 (22.8 in 2020). In the structure of the incidence of regions, breast cancer occupies the 1st ranking place in most regions and cities of the country, except for four: Akmola, Atyrau, Kyzylorda and North Kazakhstan regions, where lung cancer has taken the 1st ranking place.

Above the average republican level, the incidence of breast cancer was established in 9 regions of the country: Pavlodar - 47.4 - the highest level, Karaganda - 40.1, East Kazakhstan - 39.9, North Kazakhstan - 38.2, Kostanay - 35.8, Akmola - 29.8, West Kazakhstan - 28.4 regions and Almaty - 34.5, Nur-Sultan - 28.4. The indicator is lower in 8 regions: Turkestan - 11.7, Kyzylorda - 14.4, Zhambyl - 15.1, Atyrau - 15.7, Mangystau - 17.3, Almaty - 17.7, Aktobe - 24.3 regions and Shymkent - 21.9 per 100 thousand population [4].

In the structure of the causes of death of both sexes from this disease, for the twelfth year in a row, it occupies the 3rd position, amounting to 8.7% in 2021 (7.8% in 2020). In general, the mortality rate from breast cancer in the republic increased from 5.9 to 6.2 per 100,000 population.

The regions where the mortality rate from breast cancer is above the average level in the republic include: North Kazakhstan - 11.4 (maximum level), Pavlodar - 10.0, East Kazakhstan - 8.5, Akmola - 8.2, Kostanay - 7.5, West Kazakhstan - 6.9 regions and years. Almaty - 9.5 and Nur-Sultan - 6.6 per 100 thousand population. The lowest rates were noted in Atyrau - 3.0, Aktobe - 3.5, Turkestan - 3.6, Mangystau - 3.6, Kyzylorda - 4.1, Zhambyl - 4.8 and Almaty - 5.8 regions [4].

Mass screening to identify breast cancer patients should mainly involve healthy women without any signs of the disease or symptoms. Screening not only helps to detect hidden forms of cancer that can be treated, but also has psychological value for women. As a result of screening, women are convinced that they do not have breast cancer, and this is the most important

potential success of such programs. While the ultimate goal of screening is to reduce breast cancer mortality, its immediate goal is to detect cancer before clinical manifestation. However, breast cancer is a heterogeneous disease, which can significantly affect the effectiveness of screening. Screening models for breast cancer are usually based on the fact that the majority of detected tumors are invasive cancers in the early stage of progression. In addition, it must be taken into account that the detection of cancer (or its precursors) before clinical manifestation increases the risk of false positive diagnosis [5,6].

Mammography has a sensitivity of 95% and a specificity of 97%. These indicators decrease when examining women with denser mammary glands (young age, use of hormone therapy), with low quality mammography, and also with insufficient qualifications of the radiologist. Detection of high-grade invasive cancer by screening, when the tumor is not yet detected by clinical examination (palpation), means the possibility of reducing mortality from breast cancer [7].

Preventive screening for early detection of breast cancer in the Republic of Kazakhstan includes [8]:

1) mammography of both mammary glands in two projections - direct and oblique in the mammography room of the city, district polyclinic (mobile medical complex). All digital mammograms in the presence of a system for archiving and transferring medical images are copied to CDs and other electronic media and transferred to the server of the mammography room of the Cancer Center using specialized licensed software integrated between medical organizations; in case of impossibility of digital transmission - they are printed on X-ray film at a scale of 1:1 - 100% (1 patient - 1 set - 2 or 4 mammograms) with subsequent transfer to the mammography room of the Cancer Center;

2) interpretation of mammograms according to the BI-RADS classification (M0t, M0d, M1, M2, M3, M4, M5) by two or more independent radiologists of the same medical organization - double reading or different medical organizations: a radiologist of the mammography room city, district polyclinic (mobile medical complex) - the first reading, and the radiologist of the mammography room of the Cancer Center - the second reading;

3) in-depth diagnostics - targeted mammography, ultrasound examination (hereinafter - ultrasound) of the mammary glands, trepanobiopsy, including under ultrasound or stereotaxic control for histological examination, which is carried out in case of detection of pathological changes on mammograms (M0d) in the mammography room of the Cancer Center.

◆ An average medical worker or a responsible person of the organization of outpatient care sends the patient for mammography to the district, city polyclinic.

◆ The X-ray laboratory assistant of the mammography room of the city, district polyclinic (mobile medical complex) performs mammography, fills out a referral for double reading of mammograms and transmits the referral through information interaction.

◆ Radiologist of the mammography office of the city, district polyclinic (mobile medical complex): fulfills the requirements for the safety and quality of mammographic examinations; evaluates the quality of the images provided and the correctness of the installation; performs repeated mammography in the M0t category (technical errors of mammography); determines the radiological density of the mammary glands on the ACR scale (A, B, C, D) indicating this parameter in the study protocol; conducts the first reading of mammograms with interpretation of the BI-RADS classification results. In the M0d category (undetermined or suspicious radiological changes requiring additional examination), the study protocol indicates the predominant pathology: education, asymmetry, violation of architectonics, microcalcifications; sends mammograms, electronic copies of mammograms through the archiving system and transfer of medical images to the workplace of the mammography office of the Cancer Center together with directions for double reading of mammograms; directs low-dose computed tomographic images through the system of archiving and transferring medical images to the workplace of the computer

tomography office of the Cancer Center together with copies of images recorded on CD-ROMs or other electronic media and directions for double reading.

◆ The radiologist of the mammography room of the Cancer Center: evaluates the quality of the provided images and the correctness of the styling. Viewing digital x-ray images transferred to the server or on digital media (CD, DVD) is carried out on a monitor for interpreting digital x-ray images with a resolution of at least 5 megapixels, which has a certified grayscale transmission in accordance with the DICOM standard; conducts a double (second) reading of mammograms with the interpretation of the results according to the BI-RADS classification, using, if necessary, archival images. Organizes the third reading according to indications. With double reading, an independent interpretation of the images is carried out (blinding method - the second radiologist does not know the results of the first reading); in the M0m category (technical errors in mammography), recommends repeat mammography; in the M0d category (uncertain or suspicious radiographic changes requiring additional examination), the study protocol indicates the predominant pathology: education; asymmetry, violation of architectonics, microcalcifications; recommends that the outpatient care organization, according to indications, invite the patient for in-depth diagnostics (targeted mammography, ultrasound of the mammary glands, trephine biopsy, including under ultrasound or stereotaxic control, followed by histological examination of the material); collects and archives all mammograms (films and electronic media) made as part of the examination. The shelf life of mammograms is at least 3 years after leaving the age subject to a screening study; the results of the double (second) reading are transferred to the outpatient care organizations through information exchange.

◆ Indications for in-depth diagnostics are the conclusions of double reading mammograms M0d (uncertain or suspicious X-ray changes requiring additional examination).

◆ In-depth diagnostics is carried out in two stages. At the first stage, ultrasound is performed, according to indications, targeted mammography, possibly with an increase (with asymmetry, violation of architectonics and the presence of microcalcifications). When visualizing a suspicious pathology (M4 and M5), the second stage is performed - trepanbiopsy, including under ultrasound control and stereotaxic control for histological examination.

◆ Histological examination is carried out in the laboratory of pathomorphology or pathological bureau. Morphological interpretation of the biopsy is carried out in accordance with the recommendations of the World Health Organization.

◆ Physician or responsible person of the outpatient care organization:

- 1) upon receipt of a mammography result according to the BI-RADS classification:
 - in case of M0t (technical errors in mammography) - sends the patient for a second X-ray examination to the mammography room of the city, district polyclinic (mobile medical complex);
 - with M0d (undefined or suspicious X-ray changes requiring additional examination) - sends the patient for in-depth diagnostics to the mammography room of the Cancer Center;
 - with M1 (no changes detected) - recommends that the patient undergo a follow-up mammography examination after 2 years. With radiological density of the mammary glands, C and D are sent for ultrasound of the mammary glands to exclude a false-negative result of mammography;
 - with M2 (benign changes), refer the patient for a consultation with an oncologist (mammologist) of the clinical diagnostic department, followed by a screening mammography examination after 2 years;
 - with M3 (probable benign changes) - sends the patient for short-term dynamic radiation observation to the local doctor with the recommendation of control mammography or ultrasound in 6 months;
 - with M4 (signs that cause suspicion of malignancy), M5 (practically reliable signs of malignancy) and if it is technically impossible to perform a trepanbiopsy or a biopsy is refused, a

referral to an oncologist (mammologist) of the clinical diagnostic department for dynamic observation and decision on the verification of the identified pathology;

2) upon receipt of the result of a histological examination:

- benign education - refers the patient to an oncologist (mammologist) of the clinical diagnostic department for dynamic monitoring, followed by a screening mammography examination after 2 years;

- formation with an indeterminate malignant potential or carcinoma in situ - refers the patient to the Cancer Center for consultation and treatment, followed by dynamic observation by an oncologist (mammologist) of the clinical diagnostic department at the place of her attachment;

- malignant neoplasm - refers the patient to the Cancer Center for treatment and follow-up;

3) communicates the results of the screening examination to the patient in any available way (by telephone, in writing, through electronic means of communication);

4) enters the results of double reading, in-depth diagnostics, histological examination, recommendations of the radiologist of the Cancer Center mammography room into the information system.

Establishing the size of the primary tumor is especially important in screening. Tumor size is an important criterion for evaluating the quality of screening and determining the ability of X-ray mammography to detect non-palpable tumors. Therefore, it is extremely important that pathologists measure tumor diameter as accurately as possible. The smaller the size of the primary tumor, the greater the likelihood of error in determining its size.

Now, regarding the results of breast cancer screening. The detection rate of this oncopathology in 2021 was 1.78 per 1000 examined (in 2020 - 1.44), i.e. 1402 cases of breast cancer were detected out of 787619 examined women of the target group from 40 to 70 years old in 2021 (in 2020 - 1072 cases out of 744972 examined women). At the same time, by regions, the lowest detection rate compared to the national average was noted in Zhambyl (0.54 per 1000 examined), Kyzylorda (0.98), Mangistau (1.10), Atyrau (1.11), Almaty (1.26), Turkestan (1.36), Akmola (1.53) regions and the city of Nur-Sultan (1.54 per 1000 examined). Compared to 2020, there was an increase in the detection of breast cancer in all regions, with the exception of the Mangistau region, where there was a decrease from 2.44 to 1.10 per 1000 examined [4].

A high proportion of 0-I stages of breast cancer (over 50%) was noted in 8 regions (2020 - in 7 regions): Almaty, West Kazakhstan, Karaganda, Pavlodar, North Kazakhstan, Turkestan regions, cities of Nur-Sultan and Shymkent.

Low levels of early detection of breast cancer (below 40%) were noted in Mangistau (5.6%), Atyrau (19.2%), Aktobe (26.5%), East Kazakhstan (29.3%), Zhambyl (32.3%), Kyzylorda (35.0%) and Akmola (38.5%) regions.

The proportion of patients with breast cancer detected at stages 0 and I was 47.9% (in 2020 - 48.6%), stage II - 47.6% and 46.8%, respectively. At the same time, localized cancer (0-I and II stages) amounted to 95.5% (95.4% - in 2020). At the same time, not a single case in stages III-IV was detected in Atyrau, West Kazakhstan, Kyzylorda, Pavlodar regions, the cities of Nur-Sultan and Shymkent. In total, 52 cases of breast cancer in stage III and 11 cases in stage IV were detected (in 2020 - 38 and 11, respectively) [4].

Summing up, we can state that the obtained satisfactory results of breast cancer screening can be achieved only with its proper organization, high quality of conduct, active participation in the medical examination of the population, and the use of highly sensitive instrumental methods of preventive examination. High-quality screening of breast cancer leads to early diagnosis of various precancerous diseases and malignant neoplasms at an early stage, which, in turn, allows for timely treatment and improved prognosis. Surveyed target groups who, for one reason or another, do not participate in this screening should be informed that there are no other screening

methods that could also effectively reduce mortality from breast cancer.

LITERATURE

1 Kopans D.B. Recommendations for breast cancer screening. *Lancet Oncol.* 2020 Nov;21(11):e513. doi: 10.1016/S1470-2045(20)30529-5.

2 Rahman W.T., Helvie M.A. Breast cancer screening in average and high-risk women. *Best Pract Res Clin Obstet Gynaecol.* 2022 Sep;83:3-14. doi: 10.1016/j.bpobgyn.2021.11.007.

3 Lui C.Y., Fong J.C.Y., Wong M.C.S. Breast cancer screening-towards a broader coverage of the general population. *Hong Kong Med J.* 2022 Apr;28(2):100-102. doi: 10.12809/hkmj215127.

4 Kajdarova D.R., Shatkovskaja O.V., Ongarbaev B.T. i dr. Pokazateli onkologicheskoj sluzhby Respubliki Kazahstan za 2021 god: statisticheskie i analiticheskie materialy. – Almaty, 2022. – 384 s (In Russ.).

5 Abdolell, M., Payne, J.I., Caines, J. et al. Assessing breast cancer risk within the general screening population: developing a breast cancer risk model to identify higher risk women at mammographic screening. *Eur Radiol.* 2020 Oct;30(10):5417-5426. doi: 10.1007/s00330-020-06901-x.

6 Idit Melnik, Yael Rapson, Ahuva Gropstein et al. Different approaches to mammography as a screening tool for breast cancer. *Harefuah.* 2022 Feb;161(2):121-124.

7 Mann R.M., Athanasiou A., Baltzer P.A.T. et al. Breast cancer screening in women with extremely dense breasts recommendations of the European Society of Breast Imaging (EUSOBI). *Eur Radiol.* 2022 Jun;32(6):4036-4045. doi: 10.1007/s00330-022-08617-6.

8 Prikaz i.o. Ministra zdravoohranenija Respubliki Kazahstan ot 30 oktjabrja 2020 goda № ҚР DSM-174/2020 - «Ob utverzhdenii celevyh grupp lic, podlezhashhij skringovym issledovanijam, a takzhe pravil, ob#ema i periodichnosti provedenija dannyh issledovanij». - Paragraf 6. Porjadok provedenija skringovogo issledovanija na rannee vyjavlenie raka molochnoj zhelezy (In Russ.).

UDC: 618.14-006.6-07-036.22 (574)

CERVICAL CANCER: EPIDEMIOLOGY, ALGORITHM AND SCREENING RESULTS IN THE REPUBLIC OF KAZAKHSTAN

Arman A. Khozhayev

Professor of the Department of Oncology named after S.N. Nugmanov, Asfendiyarov Kazakh National Medical University, Almaty, Republic of Kazakhstan

Akbota B. Tolegen

Resident oncologist, Asfendiyarov Kazakh National Medical University, Almaty, Republic of Kazakhstan

Sholpan M. Amirova

Resident oncologist, Asfendiyarov Kazakh National Medical University, Almaty, Republic of Kazakhstan

Adina T. Adilkhanova

Resident oncologist, Asfendiyarov Kazakh National Medical University, Almaty, Republic of Kazakhstan

Gulsima K. Aidabassova

Resident oncologist, Asfendiyarov Kazakh National Medical University, Almaty, Republic of Kazakhstan

Tomiris S. Elubaeva

Resident chemotherapist, Asfendiyarov Kazakh National Medical University, Almaty, Republic of Kazakhstan

Karlygash Zh. Sharipbay

Resident oncologist, Asfendiyarov Kazakh National Medical University, Almaty, Republic of Kazakhstan

Arailym Abilkaiyrkyzy

Resident oncologist, Asfendiyarov Kazakh National Medical University, Almaty, Republic of Kazakhstan

Balziya M. Zhantakbay

Resident oncologist, Asfendiyarov Kazakh National Medical University, Almaty, Republic of Kazakhstan

Annotation: This scientific and analytical work reflects the morbidity and mortality rates from cervical cancer in the context of the regional characteristics of our country. A detailed step-by-step algorithm for oncogynecological screening is presented and the principles of organization and diagnostic capabilities of this method for the active detection of precancerous conditions and cervical cancer in clinically asymptomatic individuals are reflected. In addition, the results of the

screening program used and its effectiveness were analyzed. It is shown that in order to achieve a productive result, information, maximum coverage of the population and strict adherence to the methodology of this type of screening are necessary.

Key words: cervical cancer, epidemiology, morbidity, mortality, screening, Pap test, smear for oncocytology.

The key concept of screening for cervical cancer (CC) is the detection of oncological pathology in the early stages, when the prognosis is most favorable and allows you to get the best long-term results of treatment. In addition to oncological pathology, this type of screening makes it possible to detect various types of intraepithelial changes in the squamous epithelium, related to precancerous and allowing these patients to take therapeutic measures related to the secondary prevention of CC. And it is clear that a preventive examination always has advantages over a diagnostic examination when there are already symptoms of the disease. Along with this, it is necessary to understand that the main conditions for screening CC are the availability of trained personnel and a standardized approach to identifying the trait under study and evaluating the results. The applied methods should be quite simple, reliable and reproducible, and also have sufficient sensitivity and high specificity [1,2,3].

CC in the structure of all malignant neoplasms in our country among both sexes of the population in 2021 took 4th place with a specific gravity of 5.54%, in women - 2nd annual stable place after breast cancer, amounting to 9.7 %. The incidence rate per 100 thousand population increased to 9.4 (in 2020 - 8.9) [4].

In 11 regions of the republic, the incidence rate was higher than the national average: Pavlodar - 16.7 per 100 thousand population (the highest rate), Atyrau - 13.8, Karaganda - 12.0, Akmola - 11.9, Aktobe - 11.6, West Kazakhstan - 11.1, East Kazakhstan - 10.8, Kostanay - 10.6, North Kazakhstan - 10.2, Mangistau - 9.7, Almaty - 9.5 regions. Low data on morbidity were found in Turkestan - 5.2 per 100 thousand population, Zhambyl - 5.7, Kyzylorda - 8.2 regions and in cities Almaty - 8.3, Nur-Sultan - 7.6 and Shymkent - 7.8.

CC in the structure of causes of death from malignant tumors of the population of both sexes in 2021 retained the 9th position, with a share of 4.3% (2020 - 4.2%), mortality from CC is stable at 3.1 per 100 thousand of the population.

Above the average for the republic, mortality from cervical cancer in 6 regions: Kyzylorda - 3.5 per 100 thousand population, East Kazakhstan - 3.8, Atyrau - 4.0, Karaganda - 4.7, West Kazakhstan - 4.8, Pavlodar regions - 5.6 - the maximum value in the country.

At the level of the average republican indicator, mortality was recorded in the Akmola region - 3.1 per 100 thousand population, lower - in Aktobe - 3.0, Almaty - 2.5, Zhambyl - 1.9 - the best result, Kostanay - 2.4, Mangistau - 3.0, North Kazakhstan - 2.6, Turkestan - 2.2 regions and in cities Nur-Sultan - 2.6, Almaty - 2.9, Shymkent - 2.3 [4].

Referring to visually accessible localizations, the neglect of CC, i.e. late diagnosis (III-IV stages) was 15.4%. At the same time, above the national average - indicators in Karaganda - 35.2%, - the worst result, West Kazakhstan - 32.4%, Akmola - 26.4%, Mangistau - 20.8%, Pavlodar - 20.8 %, Kostanay - 15.6% regions. The lowest neglect is in the Zhambyl region - 1.5%.

The five-year survival rate of patients with CC registered in 2017 in 2021 was 67.5%, with an increase compared to the level of 2020 (58.5% for those registered in 2016), and with a significant range in terms of regions, from traditionally maximum - 81.8% (2020 - 77.1%) in Almaty, to the minimum - 23.1% (51.1%) - in Zhambyl region.

The 5-year survival rate exceeded the national average in 7 regions out of 17: West Kazakhstan - 73.3% (2020 - 47.3%), Kostanay - 78.8% (61.2%), Pavlodar - 75.5% (57.8%), North Kazakhstan - 70.7% (49.0%) of the regions and in cities Nur-Sultan - 76.5% (61.6%), Almaty - 81.8% (77.1%), Shymkent - 68.8% (59.0%). Lower rates were in the remaining 10 regions [4].

CC screening is a periodic, comprehensive examination of women of a certain age group as part of a special medical program to prevent and reduce morbidity and mortality from CC.

Type of screening - population. The purpose of screening is to identify pre-invasive diseases of the cervix with subsequent recovery. The screening method is a cytological examination of a smear for oncocytology from the cervix (traditional and liquid cytology). Coloring according to the "Papanicolaou test" (Pap test). Interval - 1 time in 4 years. Target group: women aged 30-70 years who are not registered in the dispensary for CC. The expected results are a decrease in morbidity and mortality from CC.

Screening steps:

1) Preparatory - formation of target groups, information support and invitation to screening. The preparatory stage is carried out by the nurses of the primary health care organization responsible for preventive measures and includes: annual compilation of a list of women subject to screening in the coming year by November 15 of the current year, followed by monthly correction; informing target groups of the female population about the need for screening; screening invitation; ensure timely screening.

2) Screening - filling out a statistical card of a preventive medical examination (screening) of an outpatient (form 025-08/y), a register of patients subject to cytological screening and taking material for cytological examination from the cervix. The screening examination of the target groups of the female population is carried out by a specially trained midwife of the primary health care organization.

3) The final one is obtaining the results of cytology, informing the woman and developing further management tactics, fill out accounting and reporting statistical documentation. Responsible for the final stage of screening is the obstetrician-gynecologist of primary health care [5].

Cytological screening of CC is a complex of organizational and medical measures aimed at early detection of precancerous and neoplastic diseases of this localization and at reducing the mortality of this cohort of patients. For traditional cytology, a smear containing 8-12 thousand cells of stratified squamous epithelium (including cells of metaplastic epithelium) is considered adequate; for liquid cytology - 5 thousand cells. For both methods, the number of cells of endocervical epithelium and/or metaplastic epithelium (from the transformation zone) must be at least 10 (single or in clusters). If more than 75% of the cells of the stratified squamous epithelium are covered with erythrocytes, leukocytes, etc., then the quality of the smear is considered unsatisfactory.

Interpretation of the results of a cytological study is carried out according to the Bethesda-terminology cytological system:

Intraepithelial changes and malignant processes are absent (NILM). This group includes cytological conclusions about the normal state of the epithelium, as well as the presence of various non-neoplastic diseases. Normally, squamous epithelial cells, groups of cells of columnar epithelium and metaplastic epithelium, a small number of leukocytes, and rod/mixed microflora are found in preparations. In the presence of non-neoplastic processes, their nature and, if possible, the cause are specified: atrophic changes, reactive changes associated with inflammation, including typical regeneration. In addition, the presence of microorganisms is indicated: *Trichomonas vaginalis*, fungi, morphologically corresponding to *Candida* spp., bacterial vaginosis, cellular changes corresponding to the defeat of Herpes simplex virus, squamous epithelial cells with atypia of unknown significance (ASC-US), squamous epithelial cells with atypia of unclear significance, not excluding the presence of a high degree of intraepithelial changes (ASC-H). Low-grade squamous intraepithelial changes (LSIL) include lesions associated with HPV and CIN I, high-grade squamous intraepithelial changes (HSIL) include CIN II, CIN III, carcinoma in situ and cases suspected of invasion, squamous cell carcinoma, cervical (glandular) epithelium

with atypia of unknown significance, cells of the cervical (glandular) epithelium, possibly neoplasia, endocervical adenocarcinoma in situ, endocervical adenocarcinoma, endometrial adenocarcinoma, secondary adenocarcinoma, unclassified carcinoma, other malignant tumors.

There are certain features when taking material for oncocytology: firstly, the examined woman should be informed about the exclusion of sexual intercourse, vaginal manipulations, including douching, baths, tampons, etc. 2 days prior to sampling. Taking material for cytological examination is carried out by the midwife of the examination room of the department of medical examinations of the primary health care organization: the traditional method (2 glasses - with obligatory fixation in 96% alcohol, it is preferable to use glass slides with a polished edge, which are easily marked) or the liquid cytology method (one container with stabilizing liquid); the code or surname of the patient, identical to the code and surname in the form for sending material for cytological examination, should be clearly marked on the glasses or container [5].

At the same time, when using the traditional method, the biomaterial is delivered to the cytological laboratory as soon as possible after its collection in specialized containers for glass slides with 96% alcohol. If there are visible visual changes in the cervix, then the material is taken from the woman and, without waiting for the results, she is referred for an examination by an obstetrician-gynecologist.

A cytological study is carried out in centralized cytological laboratories at oncological institutions, where an archive of cytological preparations of patients involved in the screening examination is formed, regardless of the result, for a period of at least 10 years with the formation of a computer database.

What material and technical equipment is required to take material for a Pap test? It is as follows: soap and water for washing hands, a light source for cervical examination, a gynecological chair, a disinfected speculum and gloves, an Eyre spatula, a glass slide and a marking pen, a container with a stabilizing solution for liquid cytology, a fixative solution (96% alcohol), a container with warm water for lubricating and warming the vaginal mirrors, a 0.5% chlorine solution for disinfecting gloves and instruments, or another approved for this purpose. And, of course, the registration form itself.

For carrying out liquid cytology, you additionally need: a disposable cervix brush, a container with a stabilizing solution for liquid cytology, and a fixing solution.

At the same time, a smear for oncocytology cannot be taken: during menstruation, earlier than 48 hours after sexual contact or after using lubricants, vinegar or Lugol solution, tampons or spermicides, after vaginal examination or douching, and also during the treatment of genital infection.

Now, regarding the results of CC screening. In 2021, despite the difficult epidemiological situation in the country, 787,619 women of the target group from 30 to 70 years old were examined during CC screening (744,972 in 2020) [4].

According to the results of cytological screening, 319 cases of CC were detected in 2021 (264 in 2020). At the same time, the detection rate during this preventive examination increased from 0.34 to 0.42 per 1000 examined. A high detection rate of CC was noted in Aktobe, Atyrau, Mangystau, North Kazakhstan regions and Shymkent. The detection rate in these regions was 0.62-0.93 per 1000 examined women. Compared to 2020, there is an increase in detection in almost all regions, with the exception of the West Kazakhstan and Mangystau regions, where there was a decrease in the frequency of detected cases of cancer, respectively, from 0.74 to 0.37 and 1.73 to 0.93 per 1000 examined.

Cytological precancer of the cervix was detected in 0.99% of the examined (2020 - 0.85%). The detection rate of precancer below 0.55% (the planned indicator of precancer of the cervix for 2021, according to the Comprehensive Plan to Combat Cancer) was noted in Karaganda and Kostanay regions (0.20% and 0.24%, respectively).

In 2021, the proportion of patients identified during screening studies with early stages (0-I stages) was 68.0% (2020 - 59.1%), stage II - 28.5% and 35.2% - respectively.

A high proportion of stage I CC (70% or more) was detected in 8 regions of the country (in 2020 - in 3 regions): West Kazakhstan, Zhambyl, Kostanay, Kyzylorda, Pavlodar, North Kazakhstan regions, the cities of Almaty and Shymkent. Low levels of early detection of CC (below 50%) were noted in Atyrau (43.8%) and Mangistau (46.2%) regions. Localized processes (stages I-II) were established in 96.5% of all cases of detected cancer (in 2020 - 94.3%). In Akmola, West Kazakhstan, Karaganda and Turkestan regions, cases of CC were detected not only in localized, but also in advanced stages of the process. In total, 11 cases of CC in stage III were detected and not a single case in stage IV (2020 - 14 and 1, respectively) [4].

Summarizing the above, we can state that satisfactory results of CC screening can only be achieved with its proper organization, high quality of conduct, active participation in the medical examination of the population, the use of highly sensitive tests and instrumental methods of preventive examination, accurate subsequent diagnosis of detected tumors and timely treatment. Qualitative screening of CC leads to early diagnosis of various precancerous intraepithelial changes in the cervix, which, in turn, increases the effectiveness of treatment and improves the prognosis of the disease. Surveyed target groups who, for one reason or another, do not participate in this screening should be informed that there are no other screening methods that could also effectively reduce mortality from CC.

LITERATURE

1 Sultanov, M., Zeeuw, J.d., Koot, J. et al. Investigating feasibility of 2021 WHO protocol for cervical cancer screening in underscreened populations: PREvention and SCReening Innovation Project Toward Elimination of Cervical Cancer (PRESCRIP-TEC). BMC Public Health 22, 1356 (2022). <https://doi.org/10.1186/s12889-022-13488-z>.

2 Jansen, E.E.L., de Kok, I.M.C.M., Kaljouw, S. et al. Rapid elimination of cervical cancer while maintaining the harms and benefits ratio of cervical cancer screening: a modelling study. BMC Med 20, 433 (2022). <https://doi.org/10.1186/s12916-022-02631-7>

3 Prikaz i.o. Ministra zdravoohranenija Respubliki Kazahstan ot 30 oktjabrja 2020 goda № ҚР DSM-174/2020 - «Ob utverzhdenii celevyh grupp lic, podlezhashhih skringovym issledovanijam, a takzhe pravil, ob#ema i periodichnosti provedenija dannyh issledovanij» (In Russ.).

4 Kajdarova D.R., Shatkovskaja O.V., Ongarbaev B.T. i dr. Pokazateli onkologicheskoy sluzhby Respubliki Kazahstan za 2021 god: statisticheskie i analiticheskie materialy. – Almaty, 2022. – 384 s (In Russ.).

5 <https://onco.kz/wp-content/uploads/2020/03/Rukovodstvo-po-skriningu-RSHM.pdf>

UDC: 616.345-006.6-07-036.22 (574)

COLORECTAL CANCER: EPIDEMIOLOGY, ALGORITHM AND SCREENING RESULTS IN THE REPUBLIC OF KAZAKHSTAN

Arman A. Khozhayev

Professor of the Department of Oncology named after S.N. Nugmanov, Asfendiyarov Kazakh National Medical University, Almaty, Kazakhstan

Madina N. Dukenbay

Resident chemotherapist, Asfendiyarov Kazakh National Medical University, Almaty, Republic of Kazakhstan

Altyn A. Tassybekova

Resident chemotherapist, Asfendiyarov Kazakh National Medical University, Almaty, Republic of Kazakhstan

Togzhan Zhakyp

Resident chemotherapist, Asfendiyarov Kazakh National Medical University, Almaty, Republic of Kazakhstan

Zhanasyl K. Kudaibergen

Resident chemotherapist, Asfendiyarov Kazakh National Medical University, Almaty, Republic of Kazakhstan

Shynggys E. Zhumash

Resident chemotherapist, Asfendiyarov Kazakh National Medical University, Almaty, Republic of Kazakhstan

Yernur N. Tileukhanov

Resident chemotherapist, Asfendiyarov Kazakh National Medical University, Almaty, Republic of Kazakhstan

Aidana O. Bassymbek

Resident chemotherapist, Asfendiyarov Kazakh National Medical University, Almaty, Republic of Kazakhstan

Madina N. Amanzholova

Resident chemotherapist, Asfendiyarov Kazakh National Medical University, Almaty, Republic of Kazakhstan

Annotation: This scientific and analytical work reflects the morbidity and mortality rates from colorectal cancer in the context of the regional characteristics of our country. A detailed step-by-step algorithm for colorectal screening is presented and the principles of organization and diagnostic capabilities of this method for the active detection of polyps and colorectal cancer in clinically asymptomatic individuals are reflected. In addition, the results of the screening program

used and its effectiveness were analyzed. It is shown that in order to achieve a productive result, information, maximum coverage of the population and strict adherence to the methodology of this type of screening are necessary.

Key words: colorectal cancer, epidemiology, morbidity, mortality, screening, hemocult test, fecal occult blood test - FOBT, total colonoscopy.

History knows many examples when the originally formulated postulates in a particular area continue to be relevant to this day. These postulates, which follow from one of the main tasks of the oncological service, include the early diagnosis of malignant tumors. Colorectal cancer (CRC) occupies one of the leading positions in terms of morbidity and mortality, and early symptoms are very poor, which leads to a high neglect of this disease at the time of diagnosis. In this regard, two-stage colorectal screening is one of the most important areas to improve the early diagnosis of this cancer localization. At the same time, the main conditions for screening are the availability of trained personnel and a standard approach to identifying the trait under study and evaluating the results. The applied methods should be quite simple, reliable and reproducible [1,2].

Colon cancer with a share of 5.2% (2020 - 5.5%) in the structure of oncopathology of both sexes of the population and women (4.9%) remained in 6th place in 2021, in men it fell from 5th to 6th place (5.5%). The incidence rate per 100 thousand of the population with cancer of this localization in the country in 2021 increased from 8.7 to 8.8 [3].

Above the average republican level, the incidence of colon cancer was noted in 11 regions: Kostanay - 15.9, Pavlodar - 15.3, Karaganda - 15.0, East Kazakhstan - 13.4, North Kazakhstan - 12.7, Akmola - 10, 2, West Kazakhstan - 10.1, Aktobe - 9.0 regions and years. Almaty - 12.1 and Nur-Sultan - 9.0. Least of all, colon cancer was noted in Turkestan - 2.7 per 100 thousand population, Kyzylorda - 4.6, Almaty - 4.7, Mangystau - 4.9, Zhambyl - 5.8 regions and Shymkent - 4.0.

Rectal cancer in the structure of malignant tumors of both sexes retains the 7th place in terms of rank with a specific gravity of 4.9% (2020 - 5.0%), but in men it has risen from 6th to 4th place, in women it is stable at 9th place. The incidence rate increased from 7.8 to 8.4 per 100,000 population. At the same time, a high incidence rate was registered in Pavlodar - 18.1 per 100 thousand population, Kostanay - 16.2, North Kazakhstan - 15.1, East Kazakhstan - 13.9, Akmola - 13.1, Karaganda - 11, 7, West Kazakhstan - 9.8 regions. Traditionally, a low incidence of rectal cancer is observed in Turkestan - 2.7, Mangystau - 2.8, Zhambyl - 5.1, Kyzylorda - 5.3, Almaty - 5.6, Atyrau - 6.3 regions and Shymkent - 5.0 per 100 thousand population [3].

Colon cancer in the structure of causes of death from malignant neoplasms of the population of both sexes in 2021 dropped from 5th place to 6th, with a share of 5.0% (2020 - 5.4%). At the same time, the mortality rate in the country decreased from 4.1 to 3.6 per 100,000 population. Above the national average, mortality rates were noted in 9 regions: Zhambyl - 3.7, Akmola - 3.8, West Kazakhstan - 4.4, North Kazakhstan - 5.0, East Kazakhstan - 5.1, Karaganda - 5.6, Kostanay - 5.6, Pavlodar - 6.0 - the maximum result, regions and Almaty - 5.3 per 100 thousand population. Low rates of mortality from colon cancer were found in Turkestan - 1.7 (the best result), Almaty - 1.8, Atyrau - 1.8, Aktobe - 2.5, Mangistau - 2.6, Kyzylorda - 2.7 regions and gg. Shymkent - 2.4 and Nur-Sultan - 2.7 per 100 thousand population.

Rectal cancer in the structure of causes of death in the population of both sexes in 2021 rose from 6th to 5th place with a share of 5.4% (2020 - 5.22%). In general, the death rate from this form of cancer in the republic was 3.9 per 100,000 people. A high mortality rate was recorded in East Kazakhstan - 8.6 (maximum level), Pavlodar - 7.6, Akmola - 5.3, Karaganda - 5.2, Kostanay - 4.9, North Kazakhstan - 4.3 regions and Almaty city - 4.3 per 100 thousand population. Below the average republican level, mortality rates from this pathology were ascertained per 100 thousand of the population in Mangistau - 1.2 (the lowest indicator), Turkestan - 1.6, Kyzylorda - 2.1, Almaty - 2.6, Zhambyl - 2.7, Atyrau - 3.4 regions and Shymkent - 2.1 [3].

Screening of CRC screening is the systematic use of screening studies in an asymptomatic population. The purpose of screening is to identify people with abnormalities suggestive of CRC. These persons in the future need additional examination to clarify the diagnosis. Opportunistic screening is the non-systematic use of screening tests in routine medical practice. A screening program is much more challenging than an early detection program. At the same time, the success of the screening program is largely determined by the awareness of the population and medical workers about the possibilities of early diagnosis of CRC. The feasibility of a screening program is determined by several factors that relate to the disease being screened, the screening test, the characteristics of the population, and the characteristics of the healthcare system.

The first factor is that the disease must be well understood, common enough in the target population to justify screening, have a recognizable early stage; treatment of the disease at an early stage should be more effective than at a later stage.

The second is that the test should be characterized by sufficient sensitivity, i.e. the ability to detect cancer among people with the disease; sufficient specificity - the probability that among people who do not have a disease, the test result will be negative; have a high positive predictive value (positive predictive value) or, in other words, the likelihood that people with a positive test result have the disease; have a high predictive value of a negative result (negative predictive value), i.e. the likelihood that people with a negative test result do not have the disease; security; low cost; and acceptability - the likelihood that people for whom this test is intended will agree to the examination (which to some extent depends on the awareness of the population about the possibilities and importance of early diagnosis).

The third factor is that the healthcare system should be ready for maximum screening test coverage of the target group, have the resources to confirm the diagnosis, appropriate treatment and follow-up of people with positive test results, and regularly conduct screening tests at regular intervals. At the same time, the benefits of screening must outweigh the potential physical and psychological harm and justify the financial costs of its implementation [4].

The factors most significant for the development of CRC are:

- the presence of chronic inflammatory bowel diseases, adenomatous polyps, cancer of other localization, etc.;
- family history (presence of one or two first-degree relatives with CRC or familial diffuse intestinal polyposis);
- the age of men and women over 50 years old, taking into account the fact that more than 90% of patients with colorectal cancer are people of this age (medium risk).

Age, regardless of gender, is an important risk factor for CRC. After the age of 50, the incidence of CRC increases from 8 to 160 per 100,000 population. Thus, people who have reached the age of 50, even in the absence of symptoms, constitute a moderate risk group for CRC.

The second category of increased risk of CRC (20%) is made up of persons with a genetic and family predisposition, suffering from chronic inflammatory bowel diseases, diffuse familial polyposis.

The high-risk CRC group is determined by the so-called Amsterdam criteria (the presence of malignant tumors in two generations, the presence of cancer in a first-line relative under the age of 50 years), in this case, CRC screening should be carried out after the age of 30 years [5].

The degree of individual risk of developing CRC is determined before screening to select the scope of studies and the frequency of their conduct.

The interval for oncological colorectal screening is 1 time in 2 years, target group: men and women aged 50-70 years, with the exception of persons registered at the dispensary for CRC and colon polyposis. At the same time, when forming the target group, one should take into account the absence of severe concomitant diseases, such as the presence of a common malignant neoplasm, cerebrovascular diseases in the stage of decompensation, chronic obstructive

pulmonary disease with respiratory failure, cirrhosis of the liver, myocardial infarction with congestive heart failure, diabetes mellitus with vascular complications. and others, which are highly likely to lead to death in the next 10 years.

The first step in screening for CRC is the fecal occult blood test (FOBT). Traditionally, such methods include a benzidine test for occult blood in the feces. This is a biochemical method based on the assessment of pseudoperoxidase activity of hemoglobin. There is ample evidence that invitation to guaiac FOBT screening (gFOBT) reduces CRC mortality by approximately 15% in age-matched average-risk populations.

To ensure the effectiveness of screening with gFOBT, the interval for screening under the national screening program should not exceed two years. To date, there is an immunochemical FOBT method - iFOBT, which is superior in efficiency to gFOBT in terms of the probability of detecting adenoma and cancer. iFOBT has improved analysis performance compared to gFOBT.

Immunochemical (immunochromatographic) examination of feces for occult blood - iFOBT or hemocult test is carried out for all men and women of the target group using an express method, which allows you to get a result within 3-5 minutes, without the participation of a medical worker. However, the evaluation of the test is carried out only by a medical worker in the PHC preventive department.

With a positive analysis of feces for occult blood, the second stage of colorectal screening is performed, which consists in endoscopic examination of the colon - total colonoscopy [6]. At the same time, in this case, this medical manipulation is of a therapeutic and diagnostic nature, since it allows one-stage removal of adenomatous polyps, which, according to various authors, occur in every third subject after 50 years of age. At the same time, women have 20% fewer polyps than men, but they have more right-sided lesions, which are more difficult to detect using fecal blood tests, because they are less traumatic [6,7].

Now, regarding the results of CRC screening. In 2021, despite the difficult epidemiological situation in the country, 920,640 men and women of the target group from 50 to 70 years old were examined during colorectal screening (971,450 in 2020) [3].

According to the results of colorectal screening, 211 cases of colon and rectal cancer were detected in 2021, which is 24 cases more than in the previous year - 187 cases. The detection rate increased from 0.19 to 0.23 per 1000 examined patients.

The low detection rate of CRC was noted mainly in regions with a low level of basic incidence - in Turkestan, Zhambyl, Atyrau, Kyzylorda, Mangystau regions, Shymkent - from 0.01 to 0.20 per 1000 examined, as well as in West Kazakhstan, Akmola regions, Nur-Sultan - regions with an average and high incidence of CRC.

Compared to 2020, screening showed a decrease in the detection rate of CRC in the Mangistau region (from 1.04 to 0.20), Almaty (from 0.36 to 0.26), and Akmola (from 0.26 to 0.13), Karaganda (from 0.29 to 0.22) and Turkestan (from 0.06 to 0.01 per 1000 examined).

Colon precancer (adenoma detection rate) was detected in 22.8% of patients who underwent colonoscopy (2020 - 19%). Below the national average, the detection rate of colorectal precancer was noted in Akmola, Aktobe, Almaty, Atyrau, Zhambyl, Kyzylorda and Mangystau regions.

It should be noted that the indicator of detection of precancer of the colon for 2021, according to the Comprehensive Plan for the Control of Cancer, was 21.0% and was achieved. At the same time, in 2021, the proportion of patients with CRC identified during screening studies with early stages (0-I, II stages) was 89.1% (in 2020 - 89.3%).

The proportion of stage 0-I CRC was 27.5% (2020 - 33.7%); Stage II - 61.6% and 55.6% - respectively. High early detection of CRC (above 30%) was noted in the following regions: Akmola, Zhambyl, Kostanay, North Kazakhstan, Turkestan, East Kazakhstan regions, the cities of Almaty and Shymkent. Cases of cancer in stages III-IV detected during screening were registered in Almaty,

West Kazakhstan, Karaganda, Kostanay, Pavlodar, East Kazakhstan regions, Almaty city. A total of 18 cases of CRC in stage III and 5 cases in stage IV were identified [3].

Summarizing the above, it can be stated that satisfactory results of colorectal screening can only be achieved with its proper organization, high quality of conduct, active participation in population screening, the use of highly sensitive tests and instrumental methods of preventive examination, accurate subsequent diagnosis of detected tumors and timely treatment. High-quality colorectal screening leads to early diagnosis of colon neoplasms, both benign in the form of polyps, and CRC in the early stages, which, in turn, improves the effectiveness of treatment and improves the prognosis of the disease. Target groups surveyed, who for one reason or another do not participate in this screening, should be informed that there are no other screening methods that could also effectively reduce mortality from CRC.

LITERATURE

1 Prikaz i.o. Ministra zdravoohranenija Respubliki Kazahstan ot 30 oktjabrja 2020 goda № ҚР DSM-174/2020 - «Ob utverzhdenii celevyh grupp lic, podlezhashhih skringovym issledovanijam, a takzhe pravil, ob#ema i periodichnosti provedenija dannyh issledovanij» (In Russ.).

2 Burnett-Hartman A.N., Lee J.K., Demb J. et al. An update on the epidemiology, molecular characterization, diagnosis, and screening strategies for early-onset colorectal cancer. *Gastroenterology*. 2021 Mar; 160(4):1041-1049. doi: 10.1053/j.gastro.2020.12.068.

3 Kajdarova D.R., Shatkovskaja O.V., Ongarbaev B.T. i dr. Pokazateli onkologicheskoy sluzhby Respubliki Kazahstan za 2021 god: statisticheskie i analiticheskie materialy. – Almaty, 2022. – 384 s (In Russ.).

4 Kashin S.V., Nehajkova N.V., Zav'jalov D.V. i dr. Skrining kolorektal'nogo raka: obshhaja situacija v mire i rekomendovannye standarty kachestva kolonoskopii. *Dokazatel'naja gastrojenterologija*. 2017;6(4):32-52 (In Russ.).

5 Samadder N.J., Smith K.R., Wong J. et al. Cancer risk in families fulfilling the Amsterdam Criteria for Lynch syndrome. *JAMA Oncol*. 2017 Dec 1;3(12):1697-1701. doi: 10.1001/jamaoncol.2017.0769.

6 <https://onco.kz/skrining-na-ranee-vyyavlenie-kolorektalnogo-raka/>

7 Hultcrantz R. Aspects of colorectal cancer screening, methods, age and gender. *J Intern Med*. 2021 Apr;289(4):493-507. doi: 10.1111/joim.13171.



9 784944 486335 >

Proceedings of the 4th International Scientific Conference «Modern scientific technology» (September 7-8, 2023). Stockholm, Sweden, 2023.
116p

editor@publisher.agency

<https://publisher.agency>

Stockholm University of Technology

Stortorget 7

118 21 Stockholm, Sweden