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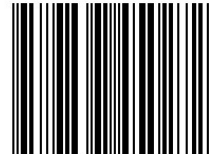
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Economic Science

УДК 12,7

Совершенствование системы государственного регулирования малого и среднего бизнеса в РК

Каиртай Темирлан

Академия государственного управления при Президенте Республики Казахстан

Аннотация: Автор обращается к вопросу о совершенствовании системы государственного регулирования малого и среднего бизнеса в Республике Казахстан (РК). Работа проводит анализ текущей ситуации и выделяет основные вызовы, с которыми сталкиваются предприниматели в стране. В работе предлагаются рекомендации по улучшению системы государственного регулирования с целью облегчения условий для развития и процветания малого и среднего бизнеса в РК. Эти рекомендации включают снижение налогового бремени, упрощение процедур регистрации и лицензирования, повышение доступности финансирования и создание специализированных образовательных программ для предпринимателей. Работа может быть полезной для правительственных органов, бизнес-ассоциаций и предпринимателей, заинтересованных в создании благоприятной среды для развития предпринимательства в РК.

Ключевые слова: малый средний бизнес, РК, Системы государственного регулирования, предприниматели, МСП.

Improvement of the public administration system regulation of small and medium-sized businesses in the Republic of Kazakhstan

Abstract:The author addresses the issue of improving the system of state regulation of small and medium-sized businesses in the Republic of Kazakhstan (RK). The work analyzes the current situation and highlights the main challenges faced by entrepreneurs in the country. The paper offers recommendations for improving the system of state regulation in order to facilitate the conditions for the development and prosperity of small and medium-sized businesses in the Republic of Kazakhstan. These recommendations include reducing the tax burden, simplifying registration and licensing procedures, increasing the availability of financing and creating specialized educational programs for entrepreneurs. The work can be useful for government agencies, business associations and entrepreneurs interested in creating a favorable environment for the development of entrepreneurship in the Republic of Kazakhstan.

Keywords:small medium business,RK,state regulation systems,entrepreneurs,SMEs.

ҚР-дағы шағын және орта бизнесті реттеу бойынша мемлекеттік жүйені жетілдіру

Аннотация: Автор Қазақстан Республикасында (ҚР) шағын және орта бизнесті мемлекеттік реттеу жүйесін жетілдіру туралы мәселеге жүгінеді. Жұмыс ағымдағы жағдайға талдау жүргізеді және елдегі кәсіпкерлер кездесетін негізгі сын-қатерлерді анықтайды. Жұмыста ҚР-да шағын және орта бизнестің дамуы мен өркендеуі үшін жағдайларды

жеңілдету мақсатында мемлекеттік реттеу жүйесін жақсарту бойынша ұсыныстар ұсынылады. Бұл ұсыныстарға салық ауыртпалығын азайту, тіркеу және лицензиялау процедураларын жеңілдету, қаржыландырудың қол жетімділігін арттыру және кәсіпкерлерге арналған арнайы білім беру бағдарламаларын құру кіреді. Жұмыс ҚР-да кәсіпкерлікті дамыту үшін қолайлы орта құруға мүдделі үкіметтік органдар, бизнес-қауымдастықтар мен кәсіпкерлер үшін пайдалы болуы мүмкін.

Кілтті сөздер: шағын орта бизнес, ҚР, Мемлекеттік реттеу жүйелері, кәсіпкерлер, ШОБ.

На сегодняшний день предпринимательство играет решающую роль в общей стратегии государственной политики по мере перехода стран к инновационной экономике. В экономически развитых странах правительство активно поддерживает и стимулирует предпринимательство и инновации. Необходимо создать благоприятные условия для развития предпринимательства, так как без них предприниматели не могут самостоятельно инициировать инновационные процессы.

Государственное регулирование предпринимательской деятельности требует эффективного управления политической и экономической системой. Он опирается на высокопрофессиональные государственные служащие, эффективную бизнес-политику, развитую систему неправительственных организаций, прозрачную отчетность и подотчетность органов власти, а также предотвращение коррупционных взаимоотношений между бизнесом и государством.

Корректная и прозрачная взаимосвязь между бизнесом и властью является важным фактором для успешного предпринимательства. Предпринимательская деятельность выполняет три основные функции: экономическую, инновационную и социальную. В развитых странах около 70% хозяйствующих субъектов являются малыми и средними предприятиями, однако основная доля ВВП и национального дохода создается крупными компаниями.

Согласно данным Международной практики за 2021 год, во многих странах можно наблюдать значительную долю малых и средних предприятий (МСП), указывающую на широкое распространение таких предприятий во всем мире.. Например, в США и странах Европейского союза функционирует более 20 миллионов фирм, в то время как в Китае их число превышает 40 миллионов. В сравнении с этими странами, в Казахстане количество зарегистрированных предприятий составляет всего 1,3 миллиона, что является значительно меньшим показателем. Однако при сравнении следует учитывать специфические особенности развития частного предпринимательства в разных странах, такие как исторические, культурные и экономические факторы, а также законодательные и институциональные условия, поддерживающие сектор малого и среднего бизнеса в каждой стране.

В развитых странах, а также в России, малый и средний бизнес являются ведущим сектором занятости, способствующим развитию инноваций в экономике. Доля работающих в малых и средних компаниях в этих странах составляет примерно 50-75% активного населения.

Однако в Казахстане доля занятых в секторе малого и среднего бизнеса значительно ниже, чем в развитых странах. В 2011 году эта доля составляла 32% от общего числа занятых. В то же время доля предприятий малого и среднего бизнеса в общем числе предприятий в Казахстане составляет 95%, что почти соответствует среднемировому значению в 98-99%.

В Казахстане существует проблема неравномерного распределения секторов деятельности среди малых и средних предприятий (МСП). Значительная доля МСП в стране занимается

деятельностью с низкой добавленной стоимостью. Данные статистических органов Казахстана показывают, что хотя на эти предприятия приходится около 18% рабочих мест, они всего лишь производят около 13% от общего объема производства. С другой стороны, стоит сравнить эту ситуацию с МСП в секторе розничной торговли. Там они создают примерно половину добавленной стоимости благодаря профессиональным услугам, одну треть от обрабатывающей промышленности и одну шестую от транспортировки и хранения.

Это несоответствие подчеркивает потенциальные выгоды, которые можно извлечь из увеличения присутствия МСП с более высокой добавленной стоимостью в экономике в целом. Поощрение роста и развития МСП, работающих в секторах с более высокой добавленной стоимостью, могло бы оказать значительное положительное влияние на экономику в целом.

Количество действующих субъектов малого и среднего предпринимательства. 2019 | тыс. единиц



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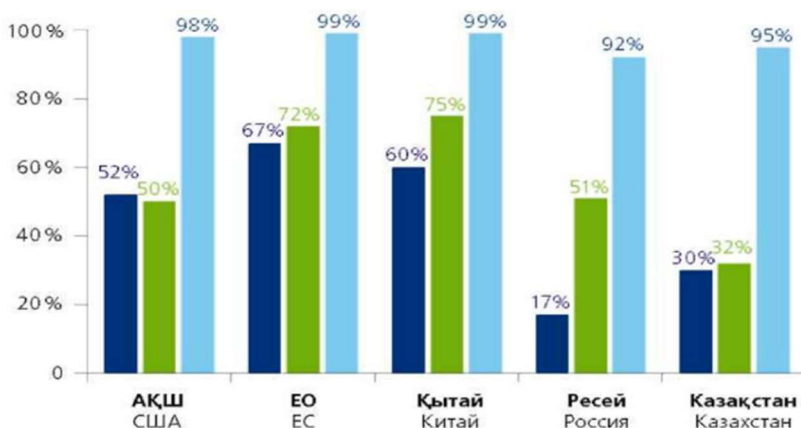
Структура сектора малого и среднего предпринимательства. Ноябрь | тыс. единиц



Доля малого и среднего предпринимательства в ВВП РК | %



Расчёты Ranking.kz на основе данных КС МНЭ РК



----- Доля в ВВП, ----- Доля в занятости, ----- Доля в общем количестве предприятий

Рис.1. Состояние МСБ в Казахстане и в мире {1}

Эффективное развитие предпринимательской деятельности зависит от воздействия внешней и внутренней среды. Для разработки и внедрения сбалансированной государственной регулятивной политики, которая учитывает интересы малого и среднего предпринимательства и способствует росту экономической свободы бизнеса, необходим анализ внешних факторов (международных, политических, экономических, правовых, экологических, технологических, социальных, рыночных) и внутренних факторов (потребители, поставщики, конкуренты).

По мнению экономических аналитиков, мировая экономическая свобода начала медленно восстанавливаться после кризиса Казахстан занял 71-е место в рейтинге 2023 года с результатом 62,1 балла, что означает снижение на 7 позиций по сравнению с прошлым годом. В рейтинге 2022 года Казахстан занимал 64-е место и имел результат 64,4 балла.

В рейтинге 2023 года приняли участие 176 стран. В Азиатско-Тихоокеанском регионе Казахстан занимает 13-е место среди 39 стран. Более того, оценка страны превосходит как среднемировой показатель (59,3 балла), так и средний показатель по региону (58,2 балла).

Казахстан опережает в рейтинге несколько стран, включая Вьетнам (72-е место), Азербайджан (75-е место), Таиланд (80-е место), Иорданию (93-е место), Турцию (104-е место), Узбекистан (109-е место), Россию (125-е место) и Китай (154-е место).

Позиции страны значительно ухудшились из-за снижения баллов по 8 компонентам рейтинга, при этом только один компонент показал улучшение, а три остались неизменными.

Заметное снижение наблюдается в компоненте "Финансовое благополучие", который снизился с 93,5 до 70,6 пункта. Это снижение объясняется финансовым состоянием страны, на которое повлиял дефицит бюджета в размере -4,2% ВВП (в среднем за последние три года). Несмотря на снижение, результаты Казахстана по-прежнему превосходят среднемировой показатель в 54,7 балла.

Незначительное ухудшение также очевидно по следующим компонентам: "Государственные расходы" (-1,4 балла), "Денежно-кредитная свобода" (-1,4 балла), "Неподкупность правительства" (-1 балл), "Свобода торговли" (-0,6 балла), "Права собственности" (-0,5 балла), "Эффективность правительства". судебная система" (-0,1 балла) и "Свобода предпринимательства" (-0,1 балла).

Важно подчеркнуть, что компоненты, измеряющие эффективность судебной системы и неподкупность правительства, набирают менее 50 баллов.

Общий рейтинг (позиция, баллы)	Индекс 2022	Индекс 2023	Изменение
		64 (64,4)	71 (62,1)
Категория 1 «Верховенство закона»			
Права собственности	55,3	54,8	0,5
Эффективность судебной системы	34,5	34,4	0,1
Правительственная целостность	37,9	36,9	1,0
Категория 2 «Размер правительства»			
Налоговое бремя	92,7	93,0	0,3
Государственные расходы	86,5	85,1	1,4
Фискальное благополучие	93,5	70,6	22,9
Категория 3 «Эффективность государственного регулирования»			
Свобода бизнеса	64,7	64,6	0,1
Свобода труда	62,7	62,7	-
Монетарная свобода	69,1	67,7	1,4
Категория 4 «Открытость рынка»			
Свобода торговли	75,4	74,8	0,6
Свобода инвестиций	50,0	50,0	-
Финансовая свобода	50,0	50,0	-

Рисунок 2. Состояние индекса {2}

В топ-10 странах рейтинга произошли значительные изменения. Сингапур сохранил свой статус самой свободной экономики в мире, но Новая Зеландия и Австралия утратили свой статус самых свободных экономик в мире, причем последняя больше не входит в топ-10 самых свободных экономик мира.

Швейцария находится на втором месте, за ней следует Ирландия, в то время как Тайвань поднялся на четвертое место.

Средний глобальный индекс экономической свободы снизился с 60,0 в предыдущем году до 59,3, что является самым низким показателем за последние два десятилетия. Во всем мире финансовая стабильность значительно ухудшилась. Уровень жизни, измеряемый доходом на душу населения, намного выше в экономически свободных странах.

Высокий уровень бюрократии, коррупции и административных барьеров при создании и ведении бизнеса стали основными причинами низкого рейтинга Казахстана. Принимаемые меры для борьбы с этими проблемами являются недостаточными и малоэффективными.

Казахстан добился значительных улучшений в показателе "Инновационность", в результате чего поднялся на 19 позиций и занял 84-е место в рейтинге. Кроме того, в субфакторе "Инновационный потенциал" страна поднялась на 18 позиций и заняла 74-е место.

Кроме того, по таким субфакторам, как "Расходы компаний на исследования и разработки", Казахстан продвинулся на 17 позиций, достигнув 77-го места. Страна также поднялась на 11 позиций в рейтинге "Сотрудничество университетов и бизнеса в области исследований и разработок" (сейчас находится на 79-м месте). Примечательно, что в разделе "Государственные закупки высокотехнологичной продукции" произошло значительное улучшение на 13 позиций, обеспечив себе 58-е место.

В целях стимулирования инновационного развития у предприятий Казахстана растет потребность в производстве товаров небольшими партиями с высокой добавленной

стоимостью. Крайне важно уделять пристальное внимание мировым экономическим тенденциям, чтобы эффективно поддерживать взаимодействие между предпринимателями и научными институтами для разработки и практической реализации инновационных проектов. Программа "KZ START", организованная АО "Национальное агентство по технологическому развитию", играет значительную роль в координации процессов инновационного развития и оказании государственной поддержки бизнесу. {3}

В рамках программы "KZ START" конкурс определит пять наиболее перспективных проектов, которые затем пройдут дальнейшую акселерацию, включая ускоренный курс в Силиконовой долине, США. Данная программа направлена на содействие координации процессов инновационного развития и усиление государственной поддержки бизнеса в Казахстане.

Курс в Кремниевой долине предоставляет казахстанским стартаперам ценную возможность поучиться у международных экспертов построению инновационного бизнеса. В ходе курса новаторы из Казахстана посещают лекции по информационной архитектуре, бизнес-моделям и монетизации. У них также есть возможность пообщаться с другими проектами, принять участие в уникальных форумах и конференциях, а также посетить известные медиа- и интернет-компании. Каждой команде предоставляется индивидуальное наставничество, которое будет направлять их в реализации проекта. Программа также способствует встречам с потенциальными инвесторами, включая такие известные компании, как ABC, Sony и Yahoo!, которые имеют влияние в отрасли. Ожидается, что наряду с командами стартапов Кремниевую долину посетят и отечественные инвесторы, заинтересованные в инвестировании в эти проекты.

Предпринимателям часто требуются дополнительные финансовые ресурсы для разработки и внедрения инноваций. Однако многие предприниматели неохотно занимаются инновационным развитием. Предприниматели в Казахстане сталкиваются с многочисленными препятствиями, когда дело доходит до разработки инновационных проектов, оценки жизнеспособности проектов, получения финансирования для реализации проектов и продвижения инновационных продуктов на рынке. Одной из проблем, с которой сталкиваются предприниматели, является нехватка профессионалов с междисциплинарными навыками, которые могут провести всесторонний анализ и дать объективную оценку инновационному проекту, ведущему к успешному запуску нового продукта как на внутреннем, так и на мировом рынках.

Более того, отечественные производители часто испытывают трудности с конкурентоспособностью своих новых продуктов в первую очередь из-за их высокой себестоимости. Это еще больше препятствует развитию и успеху инновационных проектов в Казахстане.

Одной из проблем, препятствующих предпринимательской инновационной деятельности, является зависимость от конкретных поставщиков оборудования для производственных линий. Эти поставщики часто налагают ограничения на предпринимателей, обязывая их закупать сырье и сопутствующие товары исключительно у определенных отечественных или зарубежных производителей. Не имея достаточной информации и знаний, предпринимателям сложно найти правильные решения этих проблем.

Для решения этих проблем крайне важно разработать программы, способствующие сотрудничеству между отечественными учеными и производителями. Такой подход направлен на укрепление связей между разработчиками, включая научно-исследовательские институты, экспериментальные лаборатории, университеты и предприятия, занимающиеся производством конкурентоспособных товаров. В Казахстане

Фонд развития предпринимательства "Даму" разработал программы для центров обслуживания бизнеса. Эти центры предлагают уникальный подход "одного окна", предоставляя предпринимателям необходимые консультации по мерам государственной поддержки и помощь в подготовке документов для получения финансовой помощи. Эти центры также будут организовывать форумы, семинары и мероприятия для содействия обсуждению вопросов, связанных с бизнесом, в различных секторах экономики. Кроме того, будут проводиться базовые бизнес-курсы для поддержки и стимулирования дальнейшего предпринимательского роста.

В целом, развитие сотрудничества между различными заинтересованными сторонами и предоставление комплексных услуг поддержки могут помочь преодолеть барьеры и укрепить предпринимательскую инновационную экосистему в Казахстане.

Развитые страны часто становятся свидетелями активного участия крупных корпораций в разработке и внедрении инновационных продуктов. Эти корпорации ежегодно финансируют многочисленные стартапы, поддерживая их на протяжении всего процесса, от этапа разработки до вывода на рынок новых продуктов. Этот комплексный процесс требует гибких технологических возможностей, которые позволяют разработчикам быстро реагировать на изменения рынка, избегая ненужных временных и финансовых затрат. Следовательно, успешные технологии быстро интегрируются в основные операции этих корпораций.

В Казахстане реализуются государственные программы по поддержке инновационной экосистемы. Научно-исследовательские институты, университеты и лаборатории приобрели дорогостоящее оборудование, но, к сожалению, оно часто остается недоиспользуемым. Опираясь на международный опыт, необходимо создавать экспериментальные базы и лаборатории открытого типа, оснащенные современными производственными линиями. Национальное агентство по технологическому развитию, восемь региональных технопарков, специальная экономическая зона "Парк инновационных технологий", научно-технологический холдинг "Парасат", акционерное общество "Казагроинновации", четыре конструкторских бюро, семь отраслевых инновационных центров, девять офисов коммерциализации и четыре отечественных венчурных фонда имеют заложили фундамент инновационной системы в Казахстане.

За последние три с половиной года инноваторам в Казахстане было выделено около 200 грантов на сумму 9,5 млрд тенге. Кроме того, более 100 проектов получили государственную поддержку в рамках программы технологического бизнес-инкубирования. Конструкторские бюро успешно разработали 100 видов продукции, 18 из которых уже находятся в производстве. В настоящее время отечественная продукция экспортируется в 110 стран по всему миру.

Одним из сложных аспектов инновационного процесса является маркетинг и продвижение производимого продукта, что часто требует значительных финансовых ресурсов. Без государственной поддержки предприниматели в Казахстане сталкиваются с трудностями при выводе своих товаров как на внутренний, так и на международный рынки. Однако реализация грантовой программы для предпринимателей в рамках "Дорожной карты бизнеса" в Казахстане продвигается медленно. Многоступенчатый процесс получения гранта замедляет разработку и внедрение отечественных технологий. Основным критерием для получения гранта является новизна и оригинальность бизнес-идеи.

В прошлом предприниматели должны были инвестировать 20% от суммы гранта (600 тысяч тенге), чтобы получить грант в размере 3 миллионов тенге. Однако, начиная с 2014 года, эти первоначальные инвестиции будут снижены до 10% (300 тысяч тенге), и они могут быть осуществлены в виде собственности. Целевая группа программы грантов также была расширена, включив в нее молодых предпринимателей, предпринимателей с

ограниченными возможностями и женщин-предпринимателей, в дополнение к начинающим предпринимателям.

Одним из потенциальных решений проблемы продвижения продукции на рынке является создание отечественных брендов. В Казахстане государственная поддержка полностью поддерживает такие бренды, как "KAZFISH" и "KAZMEAT". Поддерживая и продвигая отечественные бренды, предприниматели могут повысить свою узнаваемость и конкурентоспособность на рынке.

Недостаточные инвестиции в перерабатывающие отрасли экономики представляют собой серьезную проблему для развития малого и среднего бизнеса в Казахстане. Значительная часть инвестиций направляется в добывающие отрасли, в первую очередь в экспортных целях. В результате это приводит к увеличению импорта преимущественно некачественной и контрафактной продукции, одновременно снижая конкурентоспособность казахстанских производителей.

Для решения этой проблемы Правительство Казахстана внедрило Индустриальную программу, которая оказала государственную поддержку тысячам предпринимателей и сотням новаторов. Эта программа создала благоприятные условия для инвесторов и привела к созданию более пятисот новых производств, в результате чего было создано более шестидесяти тысяч постоянных рабочих мест. Кроме того, эта инициатива принесла около одного триллиона тенге налогов и способствовала производству новых продуктов, которые ранее не производились в Казахстане. Кроме того, страна успешно привлекла крупных иностранных инвесторов, что привело к реализации восьмидесяти проектов.

Малый и средний бизнес играет решающую роль в переходе к инновационной экономике. Стимулирование инвестиционной активности этих предприятий и поддержка реализации инновационных проектов будут способствовать росту конкурентоспособности отечественных товаров.

В своем Послании народу Казахстана под названием "Стратегия "Казахстан-2050"" в декабре 2012 года Президент Н. Назарбаев подчеркнул необходимость всесторонней поддержки предпринимательства как движущей силы национальной экономики. Он подчеркнул важность создания благоприятных условий для ведения бизнеса и подчеркнул задачу содействия переходу малых предприятий и индивидуальных предпринимателей в категорию средних.

Рассмотрим изменение структуры сектора МСБ в Казахстане за последние несколько лет. Анализируя данные нижеприведенной таблицы, можно отметить следующие изменения в структуре сектора малых и средних предприятий (МСП) в Казахстане за последние несколько лет:

Количество зарегистрированных субъектов МСП на 1 октября 2022 года составило 1924,5 тыс. единиц, что означает увеличение на 15,5% по сравнению с соответствующей датой 2021 года (1666,7 тыс. единиц).

Количество действующих субъектов МСП на 1 октября 2022 года составило 1694,4 тыс. единиц, что означает увеличение на 20,9% по сравнению с аналогичным периодом 2021 года (1401,1 тыс. единиц).

Численность занятых в МСП на 1 октября 2022 года составила 3912,5 тыс. человек, что является ростом на 13% по сравнению с предыдущим периодом.

Выпуск продукции субъектами МСП за январь-сентябрь 2022 года составил 39652,5 млрд. тенге, что означает увеличение на 33,4% в сопоставимых ценах по сравнению с соответствующим периодом 2021 года.

Таким образом, структура сектора МСП в Казахстане за последние годы отражает положительные тенденции, проявляющиеся в увеличении количества зарегистрированных

и действующих субъектов МСП, росте численности занятых и увеличении выпуска продукции. Эти данные указывают на развитие и укрепление сектора МСП в стране.

Трансформация предпринимательской структуры в сторону увеличения доли малого и среднего бизнеса может быть достигнута за счет всесторонней государственной поддержки, сосредоточенной на нескольких ключевых областях:

- Рационализация нормативных актов: следует приложить усилия для устранения нормативных, организационных и административных препятствий, которые препятствуют росту и развитию малых и средних предприятий. Упрощение бюрократических процедур, сокращение бюрократической волокиты и обеспечение благоприятной для бизнеса среды имеют решающее значение для развития предпринимательства.

- Предпринимательский климат: создание благоприятного предпринимательского климата предполагает реализацию политики и практики, которые поощряют и поддерживают создание и рост бизнеса. Это включает в себя предоставление стимулов, снижение барьеров для входа и поощрение честной конкуренции.

- Доступ к финансовым ресурсам: Облегчение доступа к недорогим финансовым ресурсам имеет важное значение для малых и средних предприятий. Правительство может сыграть значительную роль в расширении финансовых услуг, продвижении программ микрокредитования и создании механизмов финансирования, специально адаптированных к потребностям малого бизнеса.

- Структуры поддержки: Развитие структур поддержки, таких как центры развития бизнеса, инкубаторы и отраслевые ассоциации, может оказать ценную помощь предприятиям. Эти структуры могут предлагать консультационные услуги, доступ к рыночной информации, организационную поддержку и сетевые возможности, помогая малым и средним предприятиям преодолевать трудности и получать доступ к соответствующим ресурсам.

- Лизинг технологий и оборудования: Стимулирование развития программ лизинга технологий и оборудования может принести пользу малым и средним предприятиям, предоставляя доступ к передовым инструментам и оборудованию без необходимости значительных первоначальных инвестиций. Это может повысить производительность, конкурентоспособность и инновации в секторе.

- Сосредоточив внимание на этих областях поддержки, правительство может создать благоприятные условия для роста и развития малого и среднего бизнеса, что в итоге приведет к созданию более благоприятной и надежной предпринимательской структуры в стране.

Таблица 1

	Количество зарегистрированных субъектов МСП, ед.		Количество действующих субъектов МСП, ед.		Численность занятых в МСП, чел.		Выпуск продукции субъектами МСП, млн. тг.	
	на 1 октября 2022г.	на 1 октября 2021г.	на 1 октября 2022г.	на 1 октября 2021г.	на 1 октября 2022г.	на 1 октября 2021г.	за январь-сентябрь 2022г.	за январь-сентябрь 2021г.
Всего	1 924 475	1 666 730	1 694 418	1 401 106	3 912 486	3 462 967	39 652 548	29 720 023
Сельское, лесное и рыбное хозяйство	282 366	280 971	266 320	262 756	453 995	451 053	3 237 829	2 520 040
Промышленность	103 120	77 424	89 173	61 390	401 627	347 996	8 958 694	6 538 388
Горнодобывающая промышленность и разработка карьеров	5 408	4 966	4 368	3 896	41 028	31 852	2 305 370	1 584 598
Обрабатывающая промышленность	91 370	66 387	79 634	52 722	324 869	283 205	5 989 159	3 938 385
Снабжение электроэнергией, газом, паром, горячей водой и кондиционированным воздухом	2 160	2 009	1 734	1 531	15 267	13 978	515 777	881 880
Водоснабжение; сбор, обработка и удаление отходов, деятельность по ликвидации загрязнений	4 182	4 062	3 437	3 241	20 463	18 921	148 388	133 525
Строительство	112 722	103 252	90 986	79 360	323 812	298 368	5 008 173	4 016 594
Оптовая и розничная торговля; ремонт автомобилей и мотоциклов	668 401	536 991	586 460	444 938	1 162 428	986 978	11 123 806	8 106 691
Транспорт и складирование	94 049	92 992	81 553	77 575	195 423	189 263	2 420 456	1 734 234
Предоставление услуг по проживанию и питанию	50 060	45 348	44 156	39 790	142 999	129 014	823 621	444 952
Информация и связь	30 845	27 755	26 105	22 287	85 937	72 863	1 064 514	914 684
Финансовая и страховая деятельность	8 063	8 688	5 140	5 323	23 422	22 042	530 919	383 824
Операции с недвижимым имуществом	94 592	91 086	83 030	75 323	175 837	162 374	1 482 920	938 368
Профессиональная, научная и техническая деятельность	63 529	60 280	53 098	47 999	159 739	140 757	1 460 085	1 512 887
Деятельность в области административного и вспомогательного обслуживания	52 942	49 218	45 461	40 695	180 942	158 265	1 312 982	730 028
Образование	35 996	27 659	32 355	134	135 344	43	348 165	102
Здравоохранение и социальное обслуживание населения	16 623	13 668	15 092	23 717	90 212	115 736	489 899	241 263
Искусство, развлечения и отдых	17 351	15 094	14 728	11 920	35 973	81 391	856 600	377 616
Предоставление прочих видов услуг	293 816	236 154	260 761	11 986	345 196	28 913	933 885	646 471

Источник: Агентство РК по статистике {5}

В настоящее время существует еще одна программа по поддержке предпринимательства. Это Дорожная карта бизнеса – 2025, согласно которой там тоже можно получить грант до 5 млн тенге – это уже гранты на инновационную деятельность. Грант - безвозмездный безвозвратный, но он - целевой. В будущем важно поощрять частный капитал играть значительную роль в финансировании инноваций. Чтобы достичь этого в Казахстане, необходимо сформировать портфель привлекательных, многообещающих и финансово жизнеспособных идей, инноваций и предложений. Эти инициативы должны сопровождаться мерами поддержки, предоставляемыми правительством. {6}

Цель состоит в том, чтобы создать среду, привлекающую частных инвесторов, демонстрируя потенциальную отдачу и преимущества инвестирования в инновационные проекты. Это требует выявления и развития высокопотенциальных идей и разработок, а также внедрения эффективных механизмов поддержки для снижения рисков и повышения привлекательности инвестиционных возможностей.

Предлагая меры государственной поддержки, такие как налоговые льготы, гранты, субсидии и финансирование исследований и разработок, правительство может способствовать частным инвестициям в инновации. Эти меры должны быть направлены на содействие сотрудничеству между предпринимателями, исследователями и инвесторами, создавая благоприятную экосистему для успешной коммерциализации инновационных идей.

Кроме того, следует приложить усилия для повышения прозрачности, защиты интеллектуальной собственности и правовой базы, связанной с инвестициями в инновации. Это поможет вселить уверенность в частных инвесторов и побудит их активно участвовать в финансировании инноваций.

В целом, сочетая привлекательные и жизнеспособные инновационные проекты с мерами государственной поддержки, Казахстан может эффективно привлекать частный капитал для финансирования и стимулирования развития инновационных инициатив, способствуя росту экономики страны и способствуя развитию культуры предпринимательства и инноваций.

Преодоление основных проблем, с которыми сталкиваются новые и существующие малые инновационные фирмы, требует осуществления комплексного комплекса мер. Во-первых, национальным компаниям следует разработать долгосрочные программы, способствующие технологическому сотрудничеству с малым инновационным бизнесом. Это может включать партнерские отношения, совместные предприятия или инициативы по обмену знаниями, способствующие инновациям и росту.

Во-вторых, правительство должно ввести налоговые льготы для стимулирования инвестиций в науку и инновации. Эти стимулы могут включать налоговые льготы, вычеты или послабления для предприятий, которые инвестируют в научно-исследовательскую деятельность или поддерживают малые инновационные фирмы.

В-третьих, необходимо разработать надежную систему коммерциализации научных разработок. Эта система должна способствовать интеграции исследовательских центров, университетов и малых инновационных предприятий в международные механизмы формализации и капитализации научных результатов. Это может включать создание платформ или сетей, объединяющих исследователей, предпринимателей и потенциальных инвесторов для содействия передаче знаний, технологий и интеллектуальной собственности.

Кроме того, следует прилагать усилия для формирования предпринимательской культуры и поощрения предпринимательской деятельности среди населения в целом. Этого можно достичь с помощью информационно-просветительских кампаний, учебных программ, инициатив по наставничеству и включения курсов по предпринимательству в учебные программы образовательных учреждений. Создавая благоприятную среду и предоставляя начинающим предпринимателям необходимые навыки и знания, можно укрепить культуру предпринимательства.

Сочетание конкурентоспособных бизнес-идей, наличия соответствующей инфраструктуры и надежных систем поддержки позволит малым и средним предприятиям (МСП) в Казахстане процветать и выходить на новые уровни развития. Решая финансовые и кадровые проблемы и реализуя эти меры, страна может создать благоприятную экосистему для роста и успеха малых инновационных фирм.

REFERENCES

1. <https://ranking.kz/reviews/industries/malyj-biznes-aktivno-rasshiraetsya-v-rk-odnako-kachestvo-razvitiya-znachitelno-otstaet-ot-obshemirovyh-pokazatelej-msb-formiruet-256-vvp-rk-srednemiroy-uroven-63.html> «Статистика о данных мсб в Казахстане»
2. https://economy.kz/ru/Novosti_instituta/id=5641/arch=2023_3 «Казахстан индекс экономической свободы»
3. <https://zlibrary-sng.se/book/2912542/b7d3d8?afterGeoRedirection=1> Информация об стартап проектах»
4. https://economy.kz/ru/Novosti_instituta/id=5641/arch=2023_3 «Казахстан в Индексе экономической свободы 2023г»
5. [https://stat.gov.kz/upload/iblock/124/oq3f6xivqralon40bxiriyuhc002ttm4/%D0%A0%D0%A3%D0%A1%20%D0%BC%D0%B0%D1%80%D1%82%20\(1\).pdf](https://stat.gov.kz/upload/iblock/124/oq3f6xivqralon40bxiriyuhc002ttm4/%D0%A0%D0%A3%D0%A1%20%D0%BC%D0%B0%D1%80%D1%82%20(1).pdf) «Ответственные за выпуск: Департамент статистических регистров и классификаций И.о. Директора департамента: Г. Шукалова»
6. <https://damu.kz/programmi/reports/dkb-2025/> «Национальный проект по развитию предпринимательства 2021-2025»
7. <https://www.gov.kz/article/64584?lang=ru> «Национальный проект по развитию предпринимательства»
8. <https://stat.gov.kz/ru/industries/business-statistics/stat-org/publications/5029/> «Статистика и данные МСП»
9. https://halykfinance.kz/download/files/analytics/sme_082022.pdf «Обзор сектора малого и среднего предпринимательства (МСП)»

INTERNATIONAL EXPERIENCE IN POPULARIZATION OF SCIENCE AND THE POSSIBILITY OF ITS USE IN KAZAKHSTAN

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Abstract. The article discusses popular and effective from the point of view of international practice methods of formation and maintenance of the institutional status of science in society. The experience of the countries of Western Europe, Asia and the United States, as well as a number of post-Soviet countries identified for analysis based on the ranking of countries in terms of spending on science and the level of research activity, is described. The experience of the UK as a recognized world leader in the popularization of science, the USA, Russia and others are described in detail.

Keywords: science, popularization of science, institute of science, functions of science, history of science.

The emergence and development of science as a social institution is inextricably linked with its functions. Functions can be divided into primary, that is, having positive consequences for all the system as a whole, explaining and justifying the existence of the social institution itself, as well as secondary - additional beneficial consequences from the existence of a social institution. The primary functions of science include the acquisition, preservation and dissemination of new knowledge [1, p.255], which is impossible without the formation and maintenance of the institutional status of science in society. Of particular interest here is not only the analysis of international experience, but also the experience of organizations and international foundations involved in the popularization of science, as well as individual popularizing scientists.

As a social institution, science begins its formation in Europe during the Renaissance. The first, albeit very conditional, descriptions of the norms of this institution can be found in the works of William Hilbert, Galileo Galilei and Francis Bacon [1, p. 5].

The scientific doctrine of the vision of the world is replacing theological and metaphysical theories, winning its position in the changing social and technological realities. For thousands of years, man has been collecting bit by bit information about the world, constructing reality. Most of this knowledge was truthful and relevant, but not critical. It was the criticality of the experimental picture of the world, the refutation of knowledge and experience, that was the purpose and novelty of a fundamentally new view of the world and man, which was formed in Western Europe in the 17th century.

Initially, science was an almost spontaneous social movement, which included aristocrats and officials, and, people of science, occupied public posts. Science was not a kind of professional activity, and for many it was a form of protest against a stable picture of reality, a challenge to society and oneself.

One of the main values for the formation of science as a social institution was its conflict with religion. It had ideological, value, normative, socio-cultural and political underpinnings.

This conflict persists to this day, but the apogee of the triumph of science and the crisis of the theological and philosophical vision of the world falls on the 19th century. It was this period, the period of the triumph of positivism (O. Kont "Course of Positive Philosophy") that gave rise to the "idea of the death of God" - the loss of the traditional picture of the world with its religious morality and absolute values. "Got toot", said F. Nietzsche [2], "God will not rise again! And we killed him! Did". F. Nietzsche connects "The Death of God" with the growing popularity of scientific knowledge, which caused serious transformations in the picture of the world, the worldview and ideas of a person about himself and his own role? Even the title of his work suggests an affirmative answer to this question. Faith in science takes on grandiose proportions, and famous scientists and their theories acquire the features of prophets with crowds of followers. But these "prophets" had an earthly origin, which is why they were subjected to active criticism from the "adepts" of opposite concepts. And that bribed me the most. The possibility of taking part in the pursuit of truth, which, despite the existing belief in its attainability, constantly eluded. The boundaries of the world were expanding and everyone got the opportunity to take part in this process.

The ongoing changes affected not only the foundations of the value paradigms of the scientists themselves, but also the majority of ordinary citizens, whose traditional morality was subjected to daily doubts in the context of new scientific achievements and discoveries, which ultimately determined the value-normative transformations on the scale of the entire episteme of the era of the triumph of scientific knowledge.

Not the last role in this was played by popularization, and sometimes even direct propaganda of scientific achievements. Contextual realism and pragmatism of the discoveries made. A change in a person's self-perception of his own role and significance in the processes taking place around him. The popularization of science, and then knowledge, led to the formation of the modern type of social systems, where the social, economic and political well-being of society is strongly associated with the level of development of science, whose possibilities, despite the serious criticism of this theory, are still perceived as limitless. The stability of this thesis is largely due to the level of "accessibility" of scientific discoveries, their relevance in the changing socio-cultural context of modern societies. And one of the main roles in this is played by the practice of popularizing science through its discoveries and achievements, as well as through its socialization-humanization of discoveries through the personalization of the scientists themselves.

The popularization of science, as a process of disseminating scientific knowledge in an accessible form for a wide range of people, as well as the development of the institute of science itself, has a long history, goals, methods and means.

So, in Great Britain, the Royal Institution was created back in 1799, and in 1831, the British Association for the Advancement of Science, now it is the British Science Association. And the popularization of science takes place under the motto "Ensure the understanding of science by society". The director general of the British Science Association, Katherine Matheson, notes that society is beginning to play an increasingly active role in science through debate and dialogue, she says that: "A stream of beautiful young people is coming into the popularization of science, and they consider it a separate field of activity. However, this sector is too diverse and there is no universal way of professional development in it" [3]. This process is massive. There are hundreds of science popularizers in the UK alone. Their activities are diverse, but united we want to involve a wide range of the public in the research process.

The goal of both individual scientists who popularize science and international organizations and foundations is to reformat scientific knowledge that is often incomprehensible to the general public into interesting and understandable information. As for the means of popularization of science, the most effective of them are the mass media, popular science

speeches (in the form of lectures, seminars, etc.), popular science literature, but the Internet and social networks are becoming increasingly important. This is especially true for the youth audience.

The most famous international organizations involved in the popularization of science are the American Association for the Advancement of Science, the Atheist Alliance of America, the All-Russian Association of Science Popularizers, and the Evolution Foundation.

The American Association for the Advancement of Science is the world's largest interdisciplinary scientific community and publisher of the journal *Science*. The Association is a non-profit organization that originated in 1884 in the United States of America, whose goals, among other things, are to promote education in the field of science and technology not only for trained audiences, but also for the general public, as well as to increase public participation in science and technologies. The Association also provides scholarship programs in the field of science and technology, promotes research and innovation, conducts training, festivals, events and much more.

The Atheist Alliance of America is a non-profit organization founded in the United States of America in 1991 dedicated to the normalization of atheism and the popularization of scientific knowledge. In 2001, it changed its name to the International Alliance of Atheists, but in 2010-2011, there was a separation of these organizations. Since 2003, the Atheist Alliance of America has been presenting the Richard Dawkins Award for his contribution to the promotion of scientific knowledge (R. Dawkins is an English evolutionary biologist, an atheist, recognized in 2013 as the best thinker in the world). At the moment, the Richard Dawkins Prize is awarded by the Center for Research (CFI), which is a non-profit charitable organization dedicated to the protection and dissemination of science, the development of critical thinking in the study of religion, and the fight against pseudoscience. This center originated in the United States of America in 1991. Its founder, Paul Kurtz, is an atheist, philosopher, and writer. Now the center has branches not only in the USA, but also in other countries of the world: Canada, Argentina, China, France, Spain, Poland, etc.

The All-Russian Association of Science Popularizers was created to increase the popularity of science and technology, as well as to develop the research activities of young people and schoolchildren. In May 2021, with the assistance of the Ministry of Science and Higher Education of the Russian Federation, the Russian Academy of Sciences and Moscow State University named after M.V. Lomonosov, she held the All-Russian Forum of Science Popularizers, which discussed the popularization of scientific knowledge, the problems of increasing the prestige of science, the international exchange of experience on this issue, and much more.

The Evolution Foundation is an educational foundation created in Russia in the city of Kazan in 2015 to popularize science and the scientific worldview. This foundation is engaged in enlightenment and educational activities, the fight against pseudoscience, book publishing, and holding scientific events.

In addition, as noted above, in many countries of the world, the popularization of science is encouraged, including financially through the awarding of prizes. These awards are awarded both for the popularization of science as a whole and for its individual areas: physics, mathematics, chemistry, geography, etc. The most famous of these are: Richard Dawkins Prize for Reason and Science noted above, as well as the Kalinga Prize, the Michael Faraday Prize, the James T. Grady-James H. Stack Prize, the Royal Society of Scientific Books Prize, the National Academy Communications Prize Sciences, Engineering and Medicine, Ness Prize, Enlightener Prize.

The Kalinga Prize is awarded by the UNESCO world organization for the popularization of scientific ideas to a wide range of the public and amounts to 20,000 US dollars. It was founded in 1951 by the Indian politician Biju Patnaik, who founded the Kalinga Foundation, which, in addition to presenting the Kalinga Prize, is engaged in popularizing science and technology among ordinary people, helping students receive higher education, and also has many other activities.

The Michael Faraday Prize is presented annually by the Royal Society of London for the promotion of scientific ideas in the UK, usually to scientists and engineers. This award was founded in 1986 and named after the English experimental physicist, inventor in the field of electrical engineering, chemist Michael Faraday. It is 2500 pounds sterling.

The James T. Grady–James H. Stack Award has been awarded since 1957 by the American Chemical Society for the interpretation of scientific knowledge in chemistry by the general public and is \$5,000.

The Royal Society of Science Books Prize has been awarded annually in the amount of £25,000 since 1988 to the writing of non-fiction books from around the world for a specially trained audience.

The Communications Award from the National Academy of Sciences, Engineering and Medicine has been awarded in the United States of America since 2003 for the promotion of science, engineering and medicine and amounts to \$ 20,000 in each direction.

The Ness Prize is an annual award of the Royal Geographical Society, which has been awarded since 1953 for the popularization of geography and ideas about the world around us.

The Russian Enlightener Award was established in 2008 by Dmitry Zimin and is awarded for the best popular science work in Russian. The purpose of the award is to support, including material support, Russian-speaking scientists and science journalists who broadcast and present scientific discoveries and research in a fascinating way. Its annual prize fund is 2 million rubles.

Science museums, science festivals and exhibitions play a special role in the popularization of science. Science museums demonstrate the possibilities of science and support interest in it. The world's most famous science museums include: the Natural History Museum (London, UK), the Space Museum (Hong Kong), the Science Museum (London, UK), the Corpus Museum of the Human Body (Leiden, the Netherlands), the Exploratorium (San Francisco, USA), Museum of Natural Science (Helsinki, Finland), National Museum of Aeronautics and Astronautics (Washington, USA), NEMO Museum (Amsterdam, Netherlands), National Museum of Nature and Science (Tokyo, Japan), Te Papa National Museum (Wellington, New Zealand), Science Museum Universeum (Gothenburg, Sweden), National Museum of Anthropology (Mexico City, Mexico), Museum of Architect Sir John Soane (London, UK), Polytechnic Museum (Moscow, Russia), Swiss Museum of Transport (Lucerne, Switzerland), Academy of Natural Sciences Sciences (Philadelphia, USA).

Science festivals began to develop in the second half of the nineteenth century on the basis of conferences in Great Britain. The largest science festival in Europe is the Edinburgh International Science Festival, which has been held since 1988. Every year since 2008, the World Science Foundation has held the World Science Festival, which brings together scientists who popularize science from around the world. Since 2014, the Science Festival NAUKA 0+ has been held in Russia.

In terms of world experience, of particular interest is the London Science Gallery, which is part of the science galleries created by Trinity College Dublin. It is located in the heart of London, and is a fusion of art and science, bringing together scientists and students, representatives of local communities and the arts, as well as ordinary visitors. Visitors to the London Science Gallery are free to visit exhibitions and performances, participate in events, live experiments, open discussions and festivals based on science. All this was done with one goal - to involve the general public in scientific work, to arouse interest in it. At the same time, the main target audience of the gallery is young people, so the main principles of its work are interactivity and involvement.

Individual popularizers of science also make a significant contribution to the formation of the status of science in society. At the moment there are a lot of them. Thus, according to the assessment of the British Science Organization, there are currently hundreds of science popularizers active in the UK alone. The activities of science popularizers are varied, but often they are scientists or science journalists who provide scientific knowledge in an accessible and

interesting way for a wide range of the public. They have been around since the dawn of science. So, for example, in the book "Scientists - popularizers of science" Volodar Lishevsky [4] calls Lomonosov such a popularizer.

The popularizers of science include the traveler and naturalist Alfred Brem, the writer Jules Verne. And also this is the American science fiction writer and author of popular science books Isaac Asimov, American amateur mathematician and writer Martin Gardner, American paleontologist, evolutionary biologist and science historian Stephen Jay Gould, American astronomer and astrophysicist Carl Edward Sagan, French journalist and writer Tom Tit, French explorer and inventor Jacques-Yves-Cousteau, Russian and Soviet mathematician, physicist and journalist Yakov Isidorovich Perelman, Soviet paleontologist and science fiction writer Ivan Antonovich Efremov, Soviet mathematician and popularizer of mathematics Naum Yakovlevich Vilenkin, Soviet astronomer and astrophysicist Iosif Samuilovich Shklovsky, Soviet and Russian writer and journalist Yaroslav Kirillovich Golovanov, Soviet and Russian biologist Boris Mikhailovich Mednikov, Soviet and Russian physicist and educator Sergei Petrovich Kapitsa, Soviet and Russian astronomer Vladimir Georgievich Surdin, Russian biologist and paleontologist Alexander Vladimirovich Markov, physicist theorist and popularizer of astronomy and physics Brian Randolph Green, American astrophysicist Neil Degrasse Tyson, American physicist Michio Kaku, physicist and popularizer of physics and cosmology Stephen William Hawking and many others.

The well-known Russian popularizer of science Asya Kazantseva says that: "In general, a person can engage in science journalism if, firstly, he understands the area that he is trying to tell us about, and secondly, he knows English well enough ... The third important professional skill is the ability to put yourself in the place of the reader, to understand what he understands and is interested in" [5].

Neuroscientist and director of Science Gallery London Daniel Glaser notes that: "The UK is a world leader in recognizing that maintaining the interest of the general public in science is an integral part of the research process. Universities and research centers are now much more interested in public involvement than they were five years ago. Therefore, the popularization of science opens up excellent career opportunities for young people" [3]. And as a result, there are changes in the channels of popularization of science, a natural appeal to social networks.

Social networks occupy a special place in the lives of young people. Gradually, from a tool for communicating with friends, they turned into a source of information. Many famous personalities, including scientists, treat social networks as an integral part of their professional activities, promoting scientific ideas and fighting myths and misconceptions.

Among the most active Russian popularizers of science on the Internet, one can note: Mikhail Gelfand - professor, doctor of biological sciences, initiator of the creation of "Dissernet", etc.; Alexander Panchin - biologist, science journalist, senior researcher at the Institute for Information Transmission Problems of the Russian Academy of Sciences, a fighter against pseudoscience; Sergey Popov - astrophysicist, blogger "Life on a Brown"; Kirill Martynov - philosopher, publicist and journalist; Ilya Kabanov, editor of the popular science almanac metkere.com, professional popularizer of science and education; Petr Levich, founder of the Future Foundation, Head of the Department of Interaction between Science, Technology and Society of the Moscow Institute of Technology; Alexey Vodovozov - therapist, former military doctor; Yevgeny Timonov - scientist-naturalist; Daria Sargsyan - popularizer of medicine, journalist; Asya Kazantseva, a science journalist, popularizer of science [6].

All of them are active scientists-popularizers of scientific knowledge, carrying out their activities in social networks (VKontakte, Facebook), youtube-channels, personal sites, expose misconceptions and myths that exist in various fields of knowledge: biology, astrophysics, zoology, medicine, pharmaceuticals, philosophy, etc. They are united by the idea of popularizing scientific

knowledge in simple and modern forms, and in social networks, based on feedback, they actively communicate with readers and subscribers.

In general, the maintenance of a high institutional status of science in society is facilitated by the activities of public foundations engaged in the popularization of scientific knowledge, increasing the prestige of science, providing scholarship programs, providing support, including material support, to science popularizers and science journalists. An important role in this process is played by public recognition and the presentation of prizes to popularizers of science. A special place in the development and maintenance of interest in scientific knowledge is occupied by scientific museums, scientific festivals and exhibitions. As before, the role of individual scientists-popularizers of science is important, but in a new refraction, with a focus on the younger generation through the use of social networks and the Internet.

Analyzing the current situation in Kazakhstan, it can be noted that Kazakh scientists seek to prove their right to a monopoly of scientific competencies, orienting their practices mainly to achieve scientific authority outside the context of broad social recognition of the specific results of their scientific activities. Meanwhile, in most of the leading countries of the world, it is the sphere of social recognition of the results of scientific activity that has become a field of competition for the majority of scientists who pay considerable attention to the popularization of scientific knowledge. After all, the status of science is largely ensured by the recognition of society, and this, in turn, directly affects the size of economic investment. The unrepresentativeness of the results of scientific activity from the standpoint of ordinary consciousness and, as a result, its low institutional status is a rather serious issue, including investment in the field of science.

The issues of increasing the institutional status of science in Kazakhstani society, first of all, depend on the will and implemented measures of state authorized bodies and specialized non-governmental organizations, whose activities are regulated by legal acts regulating the scientific and innovative sphere, and program-target documents that form the basis of the state scientific and innovation policy. The current priority of mandatory universal commercialization of scientific projects reduces the role and importance of fundamental science, therefore, the norms for financing fundamental and applied research should be legally prescribed. In addition, it is necessary to take measures to increase the attractiveness of scientific and innovative activities for entrepreneurs in Kazakhstan, such as: the introduction of tax incentives for innovative entrepreneurs and mechanisms to reduce the risks of implementing scientific and innovative projects.

A special role in raising the social status of science in Kazakhstan is played by softening the tone and popularizing the scientific achievements of Kazakhstani scientific organizations and individual scientists in the media, the Internet and social networks.

The development of science in Kazakhstan is often measured by formal quantitative indicators: funds spent on financing scientific and scientific and technical activities, the number of projects, the number of titles of protection (patents, copyright certificates, etc.), the number of innovative products produced, etc. Until now, there is no understanding of science as a social institution, the formation and maintenance of which directly depends on the involvement of the general public, including an unprepared audience. Practices of popularization of science, mechanisms for involving the public, especially young people, in the field of science have not been developed. In addition, the financing of science remains rather insignificant, there are no private funds and programs whose activities are aimed at supporting the popularization of scientific ideas, there are practically no domestic popular science magazines and science journalists. Nevertheless, there are certain positive developments: the state understands the need to increase funding for science; in the educational and scientific environment, the issue of popularization of science is raised; today in Kazakhstan are held (albeit isolated) scientific festivals and exhibitions; the access

of the younger generation to the Internet and social networks is increasing, and, consequently, the possibilities of obtaining a variety of popular science information are increasing.

In the modern world, there is a unity of science as a global social institution, which, of course, is associated with the fundamental features of its activities. The knowledge produced by science has an objective result and is essentially publicly available. To popularize this knowledge, to clothe it in a form conducive to perception by society - this is the goal of popularizing science. At the moment, there is a huge international experience in this activity, which includes both the experience of a nationwide policy in the field of science, and the experience of international organizations and foundations involved in the popularization of science, as well as the work of individual popularizing scientists, science journalists. In the process of forming and maintaining the status of science in society, it is advisable for Kazakhstan to focus on it, and in general to be included in this process, especially since modern technological capabilities, inclusion in the global Internet and global social networks provide such opportunities.

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References:

1. Grigoriev V.E. Sociology of science: textbook. – Moscow: Prospect, 2018. – 384 p.
2. Nietzsche F. Cheerful science. – URL: <http://www.nietzsche.ru/works/main-works/svasian/>.
3. A new profession is the popularizer of science. – URL: <https://www.vedomosti.ru/management/articles/2017/07/26/725966-professiya-populyarizator>.
4. Lishevsky V. Scientists - popularizers of science. – M.: Knowledge, 1987. – 152 p.
5. Popularizer of science Asya Kazantseva on how pop-science books are created.– URL: <https://the-steppe.com/lyudi/populyarizator-nauki-asya-kazanceva-o-tom-kak-sozdayutsya-nauchpop-knigi>.
6. 10 Russian scientists and educators worth following.– URL: <https://rb.ru/longread/10-scientists-to-follow/>.

Аналіз сучасних напрямів цифрової трансформації бізнесу

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Постановка проблеми

На сучасному етапі економічного розвитку важливого значення набуває цифрова трансформація бізнесу, тому актуальним є відстеження її останніх тенденцій та напрямів. Існуючі бізнес-моделі є динамічними структурами, які підлягають постійним трансформаціям і вимагають адаптації з метою забезпечення їх актуальності та відповідності ринковим вимогам. Коригування та модифікації цих моделей є необхідними для збереження їх конкурентоспроможності та відповідності потребам сучасного бізнес-середовища. Ефективний розвиток бізнесу потребує використання швидких рішень, які допомагають трансформувати бізнес-моделі компаній та отримати результат. Цей процес вимагає постійної уваги та пристосування напрямків цифрової трансформації згідно з вимогами ринкових змін та інноваційних технологій. Систематичний аналіз та уточнення стратегічних напрямків цифрової трансформації дозволяють бізнесу актуалізувати бачення свого розвитку, враховуючи змінний характер сучасного бізнес-середовища. Здійснення такого аналізу сприяє вибору оптимальних рішень для подальших змін, що сприяє підвищенню ефективності та конкурентоспроможності підприємства в епоху цифрової економіки.

Аналіз останніх досліджень і публікацій

Дослідженнями теоретичних, методологічних, методичних та практичних аспектів цифрових трансформацій бізнесу сьогодні займаються багато науковців. Вони сформуливали базу, вивчають напрями та риси цифрової трансформації, механізми її реалізації. Так, наприклад, у [1] відзначається, що цифрова трансформація – це процес використання цифрових технологій для створення нових або модифікації існуючих бізнес-процесів, культури і досвіду клієнтів відповідно до мінливих вимог бізнесу та ринку. Переосмислення бізнесу в епоху цифрових технологій є цифровою трансформацією.

У [2] цифрова трансформація трактується як визначення компанією форми використання технологій, людей і процесів для надання цінності своїм клієнтам. Роблячи це, компанії прагнуть створити бізнес-моделі, які діятимуть довше та принесуть більший дохід. При цьому головними напрямками цифрової трансформації, за думкою автора, є:

1) платформа даних клієнтів (CDP) як єдине джерело даних про клієнтів, яке можна використовувати для створення більш персоналізованих і привабливих маркетингових кампаній для своїх клієнтів;

2) багатохмарна архітектура, яка означає розподіл програмного забезпечення та робочих навантажень всередині організації за допомогою однієї або двох приватних або загальнодоступних хмар;

3) автоматизація, за якої компанії можуть прискорювати темп цифрової трансформації у своїх організаціях, автоматизуючи більше своїх процесів;

4) аналітика даних та заходи аналізу даних, що можуть використовуватися різними відділами компанії для пошуку рішень складних проблем, наприклад, для прогнозування поведінки клієнтів, оптимізації процесів ланцюга постачань, оптимізації конвеєрів продажів тощо;

5) перехід до безконтактних рішень і цифрових платежів, що вимагає потужної підтримки цифрової інфраструктури, прискорюючи цифрову трансформацію.

За даними Statista [3] очікується що до 2026 року глобальні витрати на цифрову трансформацію досягнуть 3,4 трильйона доларів США. На думку автора, пріоритетними є витрати підприємств на такі технології цифрової трансформації:

1) 5G (технологія п'ятого покоління для мобільних мереж) та Internet of Things;

2) безпеку без довіри, заснована на принципі суворого контролю доступу та недовіри нікому за замовчуванням;

3) програмне забезпечення 2.0, що автоматично створює вихідний код із документа вимог;

4) data Fabric. За даними MarketsandMarkets, до 2026 року очікується що глобальний ринок мереж даних зросте до 4,2 мільярда доларів США;

5) гіперавтоматизацію, спрямовану на значну автоматизацію бізнес- та IT-процесів;

6) повний досвід, тобто узагальнюючий досвід для трансформації своїх бізнес-моделей, щоб досягти світового рівня захисту інтересів клієнтів і співробітників;

7) усе як послуга (XaaS, Everything-as-a-service або Anything-as-a-Service). Цей напрям цифрової трансформації просуває модель «як послугу»;

8) генеративний штучний інтелект (artificial intelligence, AI). Це гілка штучного інтелекту, яка використовує наявний контент (зображення, тексти, аудіо, відео) для створення подібного, але оригінального контенту;

9) AR Cloud (Augmented Reality Cloud), тобто цифрову 3D-копію середовища реального світу, створену з використанням його просторових властивостей.

Автори [4] зазначають, що щороку з'являються багатообіцяючі напрями цифрової трансформації, які мають потенціал для прискорення зростання бізнесу.

За свідченням [5] Четверта промислова революція здійснила фундаментальну зміну в тому, як ми живемо, працюємо та ставимося один до одного. Це новий розділ у розвитку людства, створений завдяки надзвичайним технологічним досягненням. Ці досягнення поєднують фізичний, цифровий і біологічний світи таким чином, що створюють величезні перспективи та потенційну небезпеку. Швидкість, розмах і глибина цієї революції змушують нас переглянути те, як розвиваються країни, як організації створюють цінності. Автор [6] вказує на вже існуючу мережу Четвертої промислової революції (C4IR Network), що на поточний час складається з 18 центрів, які прагнуть покращити управління технологіями та їх галузеву трансформацію. Ця мережа унікальна своєю здатністю охоплювати спільні принципи використання нових технологій і застосовувати їх на локальному рівні в гнучкій та сумісній системі способів.

У [7] констатується, що цифрові способи роботи ставатимуть дедалі важливішими, оскільки соціальні новатори використовують нові способи надання своїх послуг, від інтелектуальної охорони здоров'я до мікрофінансування та управління ресурсами. Для багатьох соціальних інноваторів це стосується не лише підвищення стійкості їхнього бізнесу. Йдеться також про підготовку спільнот, з якими вони працюють, до Четвертої промислової революції та декарбонізації економіки, щоб групи ризику не залишилися позаду під час трансформації традиційних галузей.

Автори [8] виділяють три основні зовнішні чинники, що обумовлюють потребу в цифровій трансформації. По-перше, вже після появи Всесвітньої павутини та її всесвітнього впровадження зростає кількість супутніх технологій (наприклад, широкосмуговий Інтернет,

смартфони, Web 2.0, SEO, хмарні обчислення, розпізнавання мовлення, системи онлайн-платежів і криптовалюти) зросли, що посилює розвиток електронної комерції. По-друге, завдяки цим новим цифровим технологіям конкуренція кардинально змінюється. У роздрібній торгівлі технології порушили конкуренцію, перемістивши продажі на відносно молоді цифрові фірми. По-третє, поведінка споживачів змінюється у відповідь на цифрову революцію. Ринкові дані показують, що споживачі переносять свої покупки в онлайн-магазини, а цифрові точки взаємодії відіграють важливу роль у шляху клієнта, впливаючи як на онлайн-, так і на офлайн-продажі.

У [9] зазначено, що сьогодні цифрова інфраструктура поширюється від бек-офісних серверів до прямих операцій завдяки розвитку хмарних обчислень, мобільних технологій, проміжного ПЗ, мініатюризації та розумних датчиків. Завдяки розширенню Інтернету речей об'єкти можна не тільки ідентифікувати та локалізувати, але й збирати, обробляти та передавати контекстно-залежні дані в часі та просторі, створюючи нові можливості для розробки продуктів і послуг. Практично будь-яку подію можна оцифрувати, проаналізувати та монетизувати. Дані, зібрані з продуктів, що використовуються, дають змогу постачальникам ефективно контролювати продукти та пропонувати послуги після продажу. Таким чином, постачальники можуть отримати уявлення про те, де розташовані продукти, як вони використовуються, чи працюють вони оптимально чи потребують технічного обслуговування. Якщо об'єднати дані з кількох пов'язаних продуктів, можна проаналізувати потоки та процеси, щоб знайти шаблони та поведінку. За допомогою розроблених алгоритмів можна приймати рішення щодо надання послуг або оптимізації процесів. Таким чином, IoT дозволяє створювати ситуативні, розумні, привабливі та ефективні товари та послуги.

Автор [10] виділяє те, як Інтернет речей і великі дані змінюють стратегії управління та маркетингу завдяки цифровізації, яка представляє новий рубіж у конкурентоспроможності бізнесу та часто розуміється як промислова революція 4.0. Ці нові парадигми радикально змінили не лише людські стосунки та повсякденну діяльність, а й методи та процеси управління компаніями. Підприємствам необхідно інтегрувати стратегії 4.0 у свою діяльність, щоб вижити та конкурувати, але для цього їм потрібно змінити методи управління, організації та виробництва. Правильним підходом до досягнення цієї мети є «реінжиніринг»: вперше з'явившись у сфері IT, згодом він розвинувся, щоб відобразити широкий процес перепроєктування основних бізнес-процедур з метою підвищення ефективності організації. Підходи реінжинірингу надають концептуальні посилання, спрямовані на переосмислення та перепроєктування бізнес-процесів за допомогою цифровізації.

Таким чином, Четверта промислова революція здійснила фундаментальну зміну в тому, як ми живемо, працюємо та ставимося один до одного. Аналіз останніх досліджень і публікацій показує, що відбувається переосмислення бізнесу та перепроєктуванню бізнес-процесів в епоху цифрових технологій за допомогою цифрової трансформації, поведінка споживачів змінюється у відповідь на цифрову революцію. Цифрові способи роботи стають дедалі важливішими, оскільки соціальні новатори використовують нові способи надання своїх послуг, постачальники можуть отримати уявлення про те, де розташовані продукти, як вони використовуються, чи працюють вони оптимально чи потребують технічного обслуговування. Існують різні підходи для впровадження процесів цифрової трансформації бізнесу і тому важливо вибрати той шлях, що допоможе створити бізнес-моделі, які діятимуть довше та принесуть більший дохід.

Отже, **метою статті** є проведення аналізу напрямів, особливостей, форм та визначення основних етапів цифрової трансформації бізнесу.

Методологія та методи дослідження

У ході дослідження застосовувалися такі наукові методи і підходи: порівняльний аналіз – при аналізі напрямів цифрової трансформації бізнесу на сучасному етапі економічного розвитку, визначенні особливостей та взаємозв'язків між ними; структурний підхід – при формуванні етапів цифрової трансформації бізнесу.

Виклад основного матеріалу дослідження

Аналіз напрямів цифрової трансформації на сучасному етапі економічного розвитку дозволяє отримати відповідь на важливе питання: куди бізнесу спрямувати інвестиційні ресурси, щоб отримати удосконалення власної бізнес-моделі та конкурентну перевагу як в короткостроковій перспективі, так і стратегічного значення? У світі цифрових трансформацій актуальне ще сьогодні рішення вже завтра може виявитися застарілим. Сам процес втілення сучасних елементів в бізнес-модель потребує одночасного управління існуючим бізнесом та впровадження нового функціоналу.

Ґрунтуючись на аналізі особливостей проведення зустрічей, презентації партнерів та навчання персоналу незалежно від місця розташування, визначимо чотири категорії участі у віддаленій роботі, які доповнюють сучасні напрями цифрової трансформації бізнесу (табл. 1).

Таблиця 1 – Категорії участі у віддаленій роботі (розроблено авторами)

№	Категорія	Особливості віддаленої роботи
1	Платформи Zoom, Google Meet, Microsoft Teams та інші	Дозволяють співробітникам проводити зустрічі, презентувати партнерів і навчати персонал віддалено.
2	Доповнена та віртуальна реальність (VR)	Уможливорює навчання та підвищення ефективності функціонування компанії незалежно від місця розташування.
3	Модель геолокації співробітників	Дозволяє співробітникам виїжджати з епіцентрів своїх компаній, щоб мати більш різноманітний вибір особистого розташування.
4	Можливість перебувати в офісі частину робочого тижня та бути віддаленим решту	Дозволяє командам співпрацювати особисто протягом певної частини тижня, а також підвищує продуктивність їх роботи за рахунок скорочення часу на дорогу.

Аналізуючи напрями цифрової трансформації та вибудовуючи нову бізнес-модель, компаніям треба звернути увагу, які категорії участі у віддаленій роботі слід використовувати, щоб досягти ефективного використання робочого часу (див. табл. 1). Технології на робочому місці можуть покращити добробут працівників або погіршити його. Зараз, як ніколи, для того, щоб конкурувати в усьому світі та робити внесок у справедливіше майбутнє праці, керівники фірм, зокрема виконавчі директори, спеціалісти з інформації, технологій та кадрів, головні юрисконсульти, повинні працювати над тим, щоб технології робочого місця, які запроваджуються, орієнтувалися на людину, приносячи користь як роботодавцю, так і працівнику. Залучаючи працівників до процесу визначення і впровадження технологій на робочому місці, роботодавці можуть підвищити довіру до нових форм організації праці, збільшити лояльність та залученість співробітників, поряд з підвищенням продуктивності праці та скороченням витрат робочого часу.

Щоб залишатися конкурентоспроможними в мінливому ринковому середовищі, організації повинні швидко адаптувати свої стратегії та впроваджувати зміни, які, найімовірніше, суттєво впливатимуть на клієнтський досвід. Це означає бути в курсі останніх напрямів цифрової трансформації. Успішні компанії мають чітке бачення того, де вони хочуть бути через три-п'ять років, і чітку дорожню карту того, як вони цього досягнуть [11].

Далі розглянемо основні напрями та технології цифрової трансформації бізнесу на сучасному етапі економічного розвитку, а також їх особливості, що розвиваються та підсилюють одна одну (табл. 2).

Таблиця 2 – Напрями та технології цифрової трансформації бізнесу
(складено авторами на основі [2], [3])

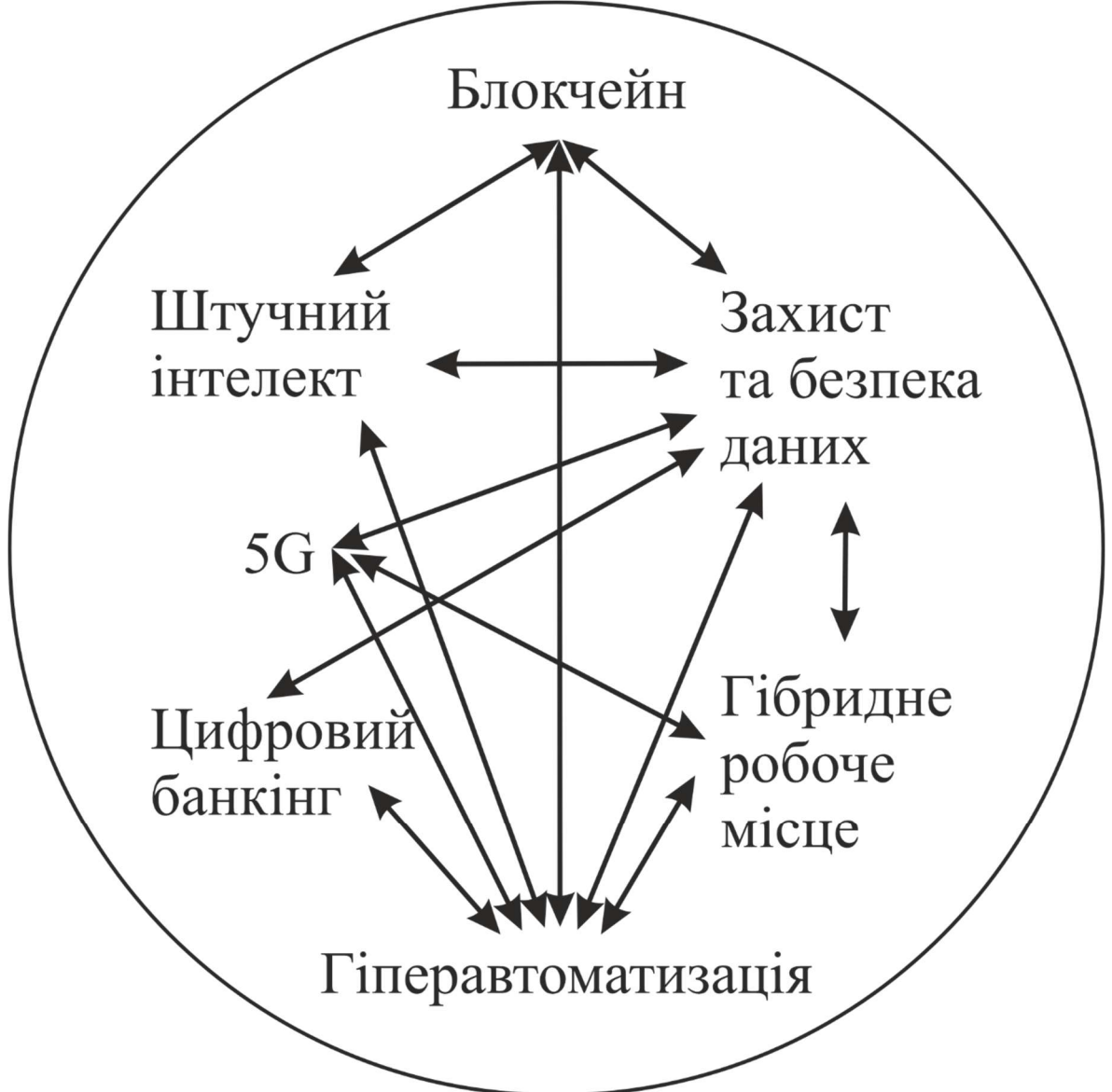
№	Напрями та технології	Особливості
1	Блокчейн	Поряд з фінансовим сектором, вже використовується в різних галузях: логістиці, операціях, безпеці та багатьох інших практичних сферах.
2	Захист та безпека даних	Чим більше людей стає користувачами Інтернету, тим більший попит на захист і безпеку даних.
3	Штучний інтелект (AI)	Чим більше бізнес-рішень, що використовують AI, тим більш релевантною та цілеспрямованою є реклама, кращою – підтримка клієнтів, ефективною – робоча сила, вищим – потенційний дохід.
4	5G	Кардинально змінює правила розвитку мобільних пристроїв і машин, трансформуючи різні види економічної діяльності
5	Гібридне робоче місце	Характеризує різні категорії участі у віддаленій роботі (див. табл. 1)
6	Гіперавтоматизація	Передбачає виявлення, перевірку та автоматизацію якомога більшої кількості бізнес- та IT-процесів, використання багатьох технологічних інструментів і платформ. У перспективі більше бізнес-рішень працюватимуть на основі AI для аналітики, захисту даних, безпеки та алгоритмів пошуку.
7	Цифровий банкінг	Концепція банківських послуг, за допомогою якої фінансові операції здійснюються з використанням цифрових технологій.

Зазначені у табл. 2 інновації можуть забезпечити:

- надійні цифрові з'єднання людей і пристроїв всюди;
- рішення для швидкого масштабування цифрової творчості будь-де;
- інноваційні можливості для прискорення зростання бізнесу поза сьогоднішнім часом.

Аналізуючи взаємозв'язки напрямів цифрової трансформації, варто зауважити, що більшість напрямів пов'язані одна з одною (рис. 1).

Рис 1. Взаємозв'язки напрямів цифрової трансформації



Треба зауважити, що рис. 1 демонструє активний розвиток напрямів гіперавтоматизації з захистом даних та використанням технології блокчейн. Це розподілена база даних, яка спільно використовується вузлами комп'ютерної мережі та зберігає інформацію в електронному вигляді в цифровому форматі [12].

Розглядаючи захист даних як процес захисту важливої інформації від пошкодження, компрометації чи втрати, а безпеку даних – як захист цифрової інформації від внутрішніх і зовнішніх, зловмисних і випадкових загроз [13], слід наголосити, що захист та безпека даних відіграють важливе значення на сучасному етапі економічного розвитку і тому потребують постійної уваги бізнесу.

AI належить до моделювання людського інтелекту в машинах, які запрограмовані думати як люди та імітувати їхні дії [14]. У поєднанні з іншими напрямками та технологіями він може допомогти побудувати більш ефективні бізнес-моделі та отримати довгострокові стратегічні переваги.

Технологія бездротового зв'язку 5G призначена для забезпечення вищої пікової швидкості передачі даних, наднизької затримки, більшої надійності, величезної пропускної здатності мережі. 5G називають «мережею мереж». Вона має об'єднати багато існуючих стандартів і перетинати різні технології та галузі як засіб індустрії 4.0. 5G спроможна створити кращі можливості віддаленої роботи для співробітників, що, у свою чергу, заощадить час і підвищить продуктивність праці, оскільки буде менше потреби в поїздках. Нарізка мережі також дозволить компаніям мати власні виділені мережі відповідно до їхніх конкретних потреб, а покращена швидкість і знижена затримка позитивно вплинуть на операційну ефективність і, отже, продуктивність.

Ключову роль при аналізі взаємозв'язків напрямів цифрової трансформації відіграє гіперавтоматизація. Це керований бізнесом дисциплінований підхід, який організації використовують для швидкого визначення, перевірки та автоматизації якомога більшої кількості бізнес- та IT-процесів. Гіперавтоматизація передбачає організоване використання кількох технологій, інструментів або платформ [15]. Рис. 1 відображає взаємодію цього напрямку з усіма іншими. Завдяки взаємодії гіперавтоматизація може використовувати переваги основних напрямків цифрової трансформації.

Гібридна модель робочого місця поєднує роботу в офісі та віддалену роботу, щоб забезпечити гнучкість і підтримку співробітників. На гібридному робочому місці працівники зазвичай користуються більшою автономією та можуть досягти кращого балансу між роботою й особистим життям – і, як наслідок, більш зацікавлені у роботі в компанії. З іншого боку, роботодавці отримують вигоду, створюючи більш продуктивну, здорову та стабільну робочу силу [16]. Як слідує з рис. 1, гібридне робоче місце потребує уваги з точки зору захисту та безпеки даних, відіграє важливу роль для гіперавтоматизації та підвищує ефективність роботи компанії у поєднанні з технологією 5G.

Цифровий банкінг стосується всього механізму управління фірмою. За його допомогою здійснюються фінансові операції із залученням цифрових технологій. Таким чином, цифровий банкінг може набувати різних форм: від перевірки поточного рахунку в Інтернеті до великих корпорацій, які передають кошти та дані одна одній по всьому світу. Цифровий банкінг значно полегшив роботу компаній. З програмним забезпеченням для бухгалтерського обліку та технологією цифрових платежів обробка грошей стала набагато ефективнішою [17].

Аналізуючи напрями цифрової трансформації, варто окремо виділити інструмент Web 3.0, який є наступною ітерацією або фазою еволюції Інтернету. Він об'єднує та використовує технології блокчейн, AI і машинне навчання для цифрової трансформації бізнесу. Як результат ми можемо отримати розподілене підприємство, тобто структуру, яка використовує загальний досвід (досвід клієнтів, користувачів, співробітників і мультидосвід, щоб з'єднатися і покращувати кожен із них) та базується на принципі віртуальності і віддаленості. З одного боку, співробітники, які працюють віддалено, використовують й інші інструменти підвищеної гнучкості. З іншого – задоволення попиту споживачів може бути недоступним за допомогою традиційних фізичних шляхів.

На підставі проведеного аналізу напрямів, особливостей, форм цифрової трансформації бізнесу визначимо основні етапи цього процесу (табл. 3).

Таблиця 3 – Основні етапи цифрової трансформації бізнесу (розроблено авторами)

№	Етап	Особливості
1	Поточний стан без змін	Підприємства продовжують працювати так, як і раніше, наприклад не переходити на модель «як послуга».
2	Перехід до активних дій	Бізнес визнав необхідність трансформації, можливо, спробував запровадити різні технології, але ці зусилля не є організованими. Виникає потреба сформуванню організованого підходу до цифрової трансформації, щоб забезпечити більш ефективні спроби реалізації змін.
3	Формалізований	Підхід передбачає постійне організоване експериментування з новими технологіями цифрової трансформації і потребує певних зусиль, щоб компанія змогла вийти за межі перешкод, які створює корпоративна культура. Реалізація підходу вимагає від компанії розпочати внутрішні зміни.
4	Стратегічний	Окремі групи бізнесу розпочали цифрову співпрацю та здійснюють інвестиції у технології, які трансформують бізнес. На цьому етапі потрібно скласти стратегічну дорожню карту з утворенням спеціальної цільової команди, що забезпечило б коригування дій компанії на шляху до досягнення стратегічних цілей.
5	Інноваційний та адаптивний	Даний етап характеризується впровадженням цифрової трансформації як постійного процесу, в якому бізнес має гарні можливості для продовження розвитку нових технологічних шляхів та легкої адаптації до змін.

Аналізуючи основні етапи цифрової трансформації бізнесу (див. табл. 3), можемо побачити, що чим раніше бізнес почне формалізований етап щодо змін у корпоративній культурі, тим активніше він перейде до складання стратегічної дорожньої карти та цифрової співпраці.

Висновки і перспективи подальших досліджень

Таким чином, аналіз напрямів цифрової трансформації на сучасному етапі економічного розвитку щодо використання нових технологій в бізнесі засвідчує, що компаніям для збереження існуючих та набуття нових стратегічних переваг треба визначити, які напрямки змін впроваджувати вже зараз, а які відкласти на довгострокову перспективу. Проходячи етапи цифрової трансформації бізнесу, треба постійно відслідковувати те, що вже змінилось, що з'явилося нового і що з цього можемо використати для успіху та досягнення результату в компанії. Створення гібридної моделі робочого місця дозволить змінити

корпоративну культуру, а гіперавтоматизація – налагодити цифрову співпрацю окремих груп бізнесу. З'являється все більше бізнес-рішень з AI, які можемо аналізувати та починати впроваджувати в операційну діяльність. Бізнес потребує постійного прийняття рішень про захист та безпеку даних, аналізу нових процесів у рамках цього напрямку цифрової трансформації. Використання технології блокчейну та впровадження Web 3.0 потребує особливої уваги з точки зору практичної імплементації нових бізнес-моделей. Розподілене підприємство і загальний досвід вже змінює процес використання нових технологій та формує потребу у постійному аналізі напрямів цифрової трансформації. З точки зору проєктів цифрової трансформації, кожний такий інвестиційний проєкт потребує формування управлінських механізмів цифрової трансформації бізнесу для посилення позитивних ефектів та зменшення негативних наслідків. Розроблення зазначених механізмів є предметом подальших наукових досліджень у цьому напрямі.

Література

1. What Is Digital Transformation? URL: <https://www.salesforce.com/products/platform/what-is-digital-transformation/>
2. 8 Digital Transformation Trends and Strategies for 2023, URL: <https://userguiding.com/blog/digital-transformation-trends/>
3. Spending on digital transformation technologies and services worldwide from 2017 to 2026, URL: <https://www.statista.com/statistics/870924/worldwide-digital-transformation-market-size/>
4. Top 9 Digital Transformation Trends To Follow In 2023, URL: <https://www.netsolutions.com/insights/digital-transformation-trends/>
5. Fourth Industrial Revolution, URL: <https://www.weforum.org/focus/fourth-industrial-revolution>
6. We are a global platform focused on inclusive technology governance and responsible digital transformation, URL: <https://centres.weforum.org/centre-for-the-fourth-industrial-revolution/about>
7. How digital tech can turbo-charge the social economy, URL: <https://www.weforum.org/agenda/2022/05/how-digital-tech-turbo-charge-social-enterprises/>
8. Digital transformation: A multidisciplinary reflection and research agenda, URL: <https://www.sciencedirect.com/science/article/pii/S0148296319305478>
9. Digital transformation: Five recommendations for the digitally conscious firm, URL: <https://www.sciencedirect.com/science/article/pii/S0007681320300975>
10. Internet of Things and Big Data as enablers for business digitalization strategies, URL: <https://www.sciencedirect.com/science/article/pii/S0166497220300456>
11. Five Trends Changing The Face Of Digital Transformation In 2022, URL: <https://www.forbes.com/sites/forbestechcouncil/2022/03/30/five-trends-changing-the-face-of-digital-transformation-in-2022/?sh=4036e1213ef4>
12. Blockchain Facts: What Is It, How It Works, and How It Can Be Used, URL: <https://www.investopedia.com/terms/b/blockchain.asp>
13. Comparing data protection vs. data security vs. data privacy, URL: <https://www.techtarget.com/searchdatabackup/tip/Comparing-data-protection-vs-data-security-vs-data-privacy>
14. Artificial Intelligence: What It Is and How It Is Used, URL: <https://www.investopedia.com/terms/a/artificial-intelligence-ai.asp>
15. Hyperautomation, URL: <https://www.gartner.com/en/information-technology/glossary/hyperautomation>

16. What is a hybrid workplace model?, URL: <https://www.sap.com/products/hcm/what-is-a-hybrid-workplace-model.html>
17. Digital Banking: An Overview of the Benefits, URL: <https://suitsmecard.com/blog/digital-banking-an-overview-of-the-benefits-2>

ОБЩИЕ ХАРАКТЕРИСТИКИ РАЗРАБОТКИ МАРКЕТИНГОВОЙ СТРАТЕГИИ ИННОВАЦИОННОГО ТОВАРА НА РЫНКЕ КАЗАХСТАНА

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Аннотация. Данная статья посвящена общим характеристикам маркетинговой стратегии инновационного товара. Этапам разработки маркетинговой стратегии.

Ключевые слова: маркетинговая стратегия, инновации, уровни маркетинговой стратегии.

Разработка маркетинговой стратегии для предприятия является творческим процессом, который требует глубокого анализа рынка и потребительского спроса, выбора эффективных каналов продвижения, определения уникального предложения и разработки ценовой политики. Использование инновационных методов и теорий также является важным аспектом, например, дизайн-мышление и метод MVP.

Маркетинговая стратегия должна быть грамотно разработана с учетом изменяющейся внешней среды, чтобы обеспечить повышение конкурентоспособности предприятия, рост устойчивости развития, применение новых рыночных возможностей, увеличение потенциала предприятия на основе инноваций, улучшение показателей качества продукции, своевременное реагирование на появление товаров-конкурентов и изменение потребностей клиентов, формирование системы KPI, увеличение уровня социальной ответственности бизнеса и репутации предприятия, обучение и подготовка персонала к работе в переходных условиях внедрения стратегии, улучшение показателей стратегического планирования.

Маркетинговая стратегия рассматривается на трех уровнях: корпоративном, уровне бизнес-единиц и продуктовом уровне. Современные маркетинговые стратегии акцентируют внимание на потребителе и его нуждах, что является важной реструктуризацией всей деятельности предприятия.

Маркетинг играет значительную роль как для предприятия, так и для потребителя. Основной задачей маркетинговой стратегии является развитие производства, усиление потенциала работников предприятия, расширение торгового портфеля, улучшение качества производимых товаров и диверсификация деятельности, которая приведет к увеличению объемов продаж и повышению эффективности деятельности предприятия. Для своевременного реагирования на изменяющиеся тенденции рынка и перемены в поведении потребителей необходимо не только стратегическое планирование, но маркетинговые исследования и анализ.

Маркетинговая стратегия предприятия реализуется в 4 этапа:

- 1 ситуационный анализ.
- 2 разработка стратегии.
- 3 формирование маркетинговой программы.
- 4 реализация стратегии.

Функция управления предприятием через стратегическое маркетинговое планирование стала более значимой для предприятия в связи с сильным влиянием на принятие управленческих решений экономических, социальных, технологических перемен.

Непрерывный процесс реализации маркетинговой стратегии включает в себя следующие действия, которые мы можем разбить на этапы по: изучению и делению рынка, его анализ, анализ конкурентной среды, мониторинг рынка. Этапы имеют последовательные действия, представленные на рисунке 1:

Во-первых, на этапе разработки маркетинговой стратегии необходимо определить заинтересованные стороны и сегменты рынка. На данном этапе разрабатывают стратегию позиционирования, формируют стратегию расширения торгового портфеля и план маркетинга взаимоотношений.

Во-вторых, этап по разработке маркетинговой программы состоит из построения стратегий: сбыта, продвижения, прайсинга.

В-третьих, этап реализации и контроля подразумевает управление за внедрением и мониторинг.



Рисунок 1. Этапы реализации маркетинговой стратегии.

Следует отметить, что многие компании имеют намерения в увеличении каналов продаж, увеличения объемов сбыта, однако, данный процесс хаотичен, нерегулярен и больше основан на интуиции, нежели на научных методах принятия решений. Соответственно при применении маркетинговых исследований по продвижению своего продукта с последующей фиксацией в виде маркетинговых стратегий или программ, компании получают конкурентные преимущества на года вперед. Но маркетинговая стратегия, как и иные стратегии должны быть в постоянном контроле и при необходимости должны быть пересмотрены (дополнены, изменены) под влиянием измененных условий как внутренней, так внешней среды.

Маркетинговая стратегия – это совокупность маркетинговых целей и путей их достижения, которые разработаны на долгосрочной основе. Однако, такие долгосрочные стратегии требуют значительных финансовых затрат, управленческих и временных ресурсов.

Для разработки маркетинговой стратегии инновационного товара на рынке Казахстана необходимо учитывать следующие методы и теории:

1. Анализ рынка и потребительского спроса. Для этого необходимо провести исследование рынка, выявить конкурентов, анализировать их продукты и цены, а также определить потребности и предпочтения целевой аудитории.
2. Разработка уникального предложения (USP). Уникальное предложение должно отличаться от конкурентов и привлекать внимание потребителей. Это может быть новая технология, удобство использования, качество продукта или другие преимущества.
3. Определение целевой аудитории. Необходимо определить, кто является потенциальными потребителями продукта, исследовать их потребности, интересы и поведение на рынке.
4. Выбор каналов продвижения. Необходимо выбрать эффективные каналы продвижения продукта, которые позволят достичь целевой аудитории. Это может быть реклама в СМИ, интернет-маркетинг, продажи через розничные сети и другие каналы.
5. Разработка ценовой политики. Необходимо определить цену продукта, которая будет конкурентоспособной на рынке, учитывая затраты на производство и маркетинг.
6. Определение плана действий. Необходимо разработать план действий по продвижению продукта на рынке, включающий в себя мероприятия по рекламе, продажам и управлению брендом.
7. Мониторинг и анализ результатов. Необходимо проводить мониторинг и анализ результатов маркетинговых мероприятий, чтобы корректировать стратегию и достигать поставленных целей.

Таким образом, разработка маркетинговой стратегии инновационного товара на рынке Казахстана требует комплексного подхода, учитывающего особенности рынка и потребительского спроса. Важно выбрать эффективные каналы продвижения, определить уникальное предложение и разработать ценовую политику, которая будет конкурентоспособной на рынке.

Список литературы:

- 1 Котлер Ф. Маркетинг от А до Я: 80 концепций, которые должен знать каждый менеджер. – М.: Альпина Пабли., 2018. – 209 с.
- 2 Портер М.Е. Международная конкуренция. Конкурентные преимущества стран. – М.: Альпина Пабли., 2016. – 947 с.
- 3 Ансофф И. Стратегический менеджмент. – СПб.: Питер, 2011. – 344 с.
- 4 Мамонтов В.Д., Осадчая Т.Г. Российское предпринимательство: история и современность // Вестник Тамбовского университета. Приложение к журналу. – 2016. №4. – 45 с.

5 Акулич И.Л., Герчиков И.З. Практический маркетинг: Практическое пособие. – Мн.: БГЭУ, Пропилей, 2011. – 56 – 58 с.

6 Сафронова Н.Б. Маркетинговые исследования: учебное пособие. М.: Дашков и К. – 2017. – 310 с.

What Drives Our Purchasing Decisions? Unveiling the Science Behind Consumer Behavior

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Abstract: In the field of understanding consumer behavior and what drives purchasing decisions is the examination of the role of cultural influences. By examining the interplay between culture and consumer behavior, the paper provides valuable insights into the complexities of purchasing decisions across diverse cultural contexts. The review of existing literature highlights the importance of psychological, cognitive, and social factors in shaping consumer behavior while emphasizing the unique perspective that cultural factors offer. The paper explores the autopilot and pilot systems in marketing, understanding their distinct roles in consumer decision-making. It identifies strategies to optimize the path of purchase by leveraging the autopilot system and integrating it with the conscious decision-making of the pilot system. Additionally, the paper emphasizes the significance of bringing value to life through personalized experiences, transparency, and ethical considerations.

1. INTRODUCTION

Extensive research has been conducted to understand the psychological, cognitive, and social factors that influence consumer behavior. Psychological factors explore perception, motivation, learning, and attitudes, shaping how individuals make purchase decisions. Cognitive factors examine how people process information, influencing their perceptions and judgments. Social factors highlight the impact of social influence and reference groups on consumer behavior. Understanding these dimensions helps businesses develop effective marketing strategies and build stronger connections with consumers.

In addition, two systems guide consumer decision-making: the autopilot and pilot systems. The autopilot system operates unconsciously, relying on familiar cues and stimuli to guide routine purchasing decisions. The pilot system engages in conscious thinking and analysis, influencing complex choices. Understanding how these systems perceive touchpoints helps marketers design strategies that align with consumer preferences and optimize the path of purchase.

To bring value to life through purchasing, businesses should consider personalization, transparency, and ethical practices. Personalized experiences cater to individual preferences, while transparency and ethical considerations resonate with consumers. Post-purchase satisfaction and exceptional service reinforce the value proposition and drive repeat purchases.

2. Understanding Consumer Behavior

2.1 Review of existing literature on psychological, cognitive, and social factors influencing consumer behavior

Understanding consumer behavior is crucial for businesses and marketers seeking to develop effective marketing strategies, create impactful advertising campaigns, and build long-term customer relationships. Among these factors, psychological, cognitive, and social aspects play pivotal roles in shaping consumer choices. This introduction aims to provide an overview of the existing literature on psychological, cognitive, and social factors influencing consumer behavior and highlight the significance of this knowledge in the realm of marketing and business. The field of consumer behavior has seen extensive research and development, focusing on understanding the underlying mechanisms that drive consumer decision-making.

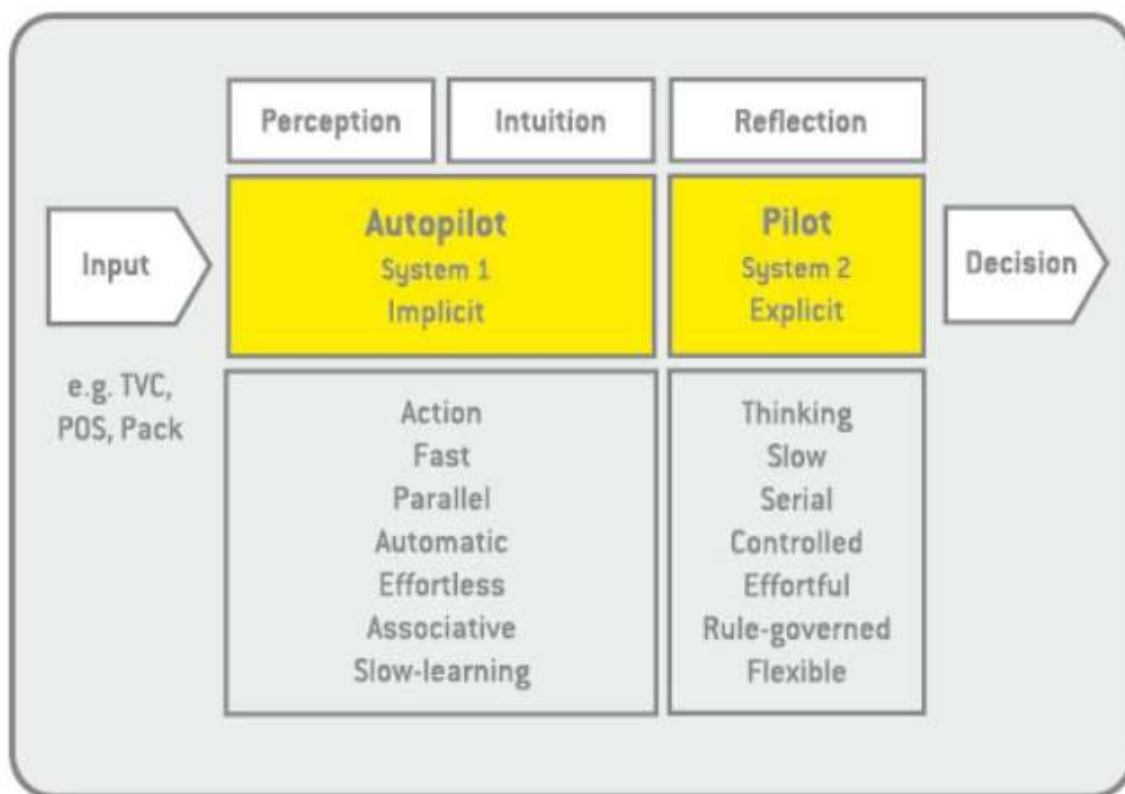
Psychological factors delve into the intricate workings of the human mind, exploring concepts such as perception, motivation, learning, and attitudes. These factors influence how individuals process information, form preferences, and make purchase decisions. The review of existing literature on psychological factors provides valuable insights into the psychological drivers that shape consumer behavior, allowing marketers to tailor their strategies to align with consumer motivations and desires.

Cognitive factors contribute to consumers' decision-making processes by examining how individuals process and evaluate information. Cognitive biases, such as availability heuristics and framing effects, influence consumers' perceptions and judgments. Understanding these cognitive factors aids businesses in presenting information effectively, enhancing consumers' perceptions of products or services, and influencing their purchasing decisions. By reviewing the existing literature on cognitive factors, marketers gain valuable knowledge to develop persuasive messaging and overcome potential barriers to consumer decision-making.

Social factors, on the other hand, highlight the impact of social influence, reference groups, and social identity on consumer behavior. Consumers often seek validation and conform to the behaviors and preferences of their social networks. The existing literature on social factors provides insights into how individuals' purchasing decisions are influenced by the social environment, group norms, and opinions of others. By understanding the role of social factors, marketers can tap into the power of social influence, leverage social proof, and employ targeted influencer marketing strategies to appeal to their target audience effectively.

3. Exploring the Autopilot and Pilot Systems in Marketing

In the field of marketing, understanding the different systems that guide consumer decision-making is crucial. [Two key systems that play a significant role in shaping consumer behavior are the autopilot and pilot systems.](#)



The autopilot system operates on an unconscious, automatic level, while the pilot system engages in conscious, deliberate thinking. Exploring these systems and their impact on marketing can provide valuable insights into consumer decision-making processes.

The autopilot system in marketing relies on habitual and automatic responses to familiar cues and stimuli. It operates on a subconscious level and guides routine purchasing decisions. For example, consider a consumer who regularly purchases a particular brand of toothpaste without actively considering other options. The autopilot system perceives touchpoints, such as the brand logo or packaging, as familiar cues that trigger automatic associations and preferences. In this case, the touchpoint of the brand logo evokes positive emotions and memories tied to past experiences, which in turn influences the autopilot system to choose that particular toothpaste brand without much conscious thought.

In contrast, the pilot system in marketing involves conscious and deliberate thinking. It is engaged in more complex and high-involvement purchasing decisions where consumers actively consider multiple factors before making a choice. For instance, when a consumer is buying a new smartphone, the pilot system comes into play. The touchpoints perceived by the pilot system include product specifications, reviews, and price comparisons. The consumer actively seeks information, evaluates different options, and weighs the pros and cons of each before making a conscious decision. The pilot system analyzes touchpoints more rationally and analytically, allowing consumers to make informed choices based on their specific needs and preferences.

The autopilot system relies on associative memory and emotional triggers when perceiving touchpoints. Familiar sensory cues, such as visual, auditory, or olfactory stimuli, play a significant role in activating the autopilot system. For example, the scent of freshly baked bread in a bakery can evoke feelings of comfort and familiarity, triggering the autopilot system to associate it with positive experiences and potentially leading to a purchase. The autopilot system's perception of

touchpoints is based on past experiences and stored associations, allowing it to make quick and effortless decisions without requiring conscious deliberation.

	System 1	System 2
Characteristics	<p>Fast Effortless Unconscious</p> <p>Triggers emotions Associative</p> <p>Looks for causation Looks for patterns</p> <p>Creates stories to explain events</p>	<p>Slow Effortful Conscious</p> <p>Logical Deliberative</p> <p>Can handle abstract concepts</p>
Advantages	<p>Speed of response in a crisis Creativity through associations, so good for expansive thinking</p> <p>Easy completion of routine or repetitive tasks</p>	<p>Allows reflection and consideration of the "bigger picture", options, pros and cons, consequences</p> <p>Can handle logic, maths, statistics Good for reductive thinking</p>
Disadvantages	<p>Jumps to conclusions Unhelpful emotional responses</p> <p>Can make errors that are not detected and corrected, such as wrong assumptions, poor judgements, false causal links</p>	<p>Slow, so requires time</p> <p>Requires effort and energy, which can lead to decision fatigue</p>

In summary, the autopilot and pilot systems are two distinct modes of consumer decision-making in marketing. The autopilot system operates on a subconscious level and relies on familiar cues and emotional triggers, guiding routine purchasing decisions. The pilot system, on the other hand, engages in conscious and deliberate thinking, evaluating touchpoints through rational analysis in more complex purchasing situations. Understanding how these systems perceive touchpoints provides marketers with valuable insights to design effective strategies that align with consumer decision-making processes and preferences.

3.1 Optimizing the Path of Purchase - The Decisive Role of the Autopilot System

The autopilot system, driven by familiarity, habit, and past experiences, guides consumers through the path of purchase effortlessly. This system relies on routine responses to familiar cues and touchpoints, leading to habitual purchasing behavior.

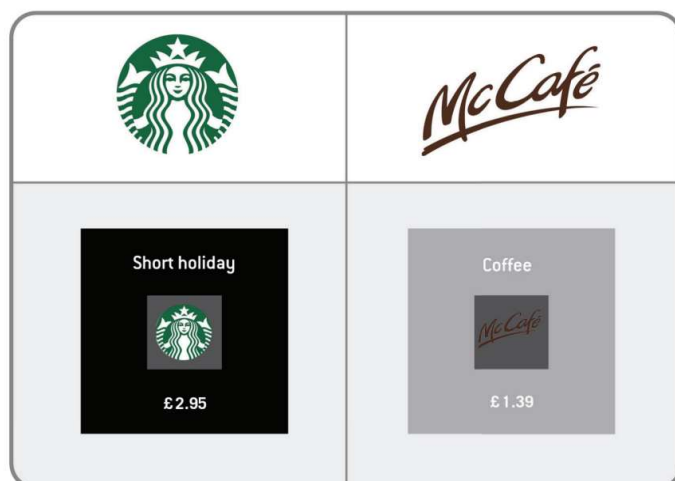


Figure 1.9 The Starbucks brand frame justifies its price premium

For example, consider a consumer who regularly buys a specific brand of coffee without actively considering other options. [The autopilot system perceives the brand logo or packaging as familiar cues, triggering automatic associations and preferences that lead to repeat purchases. By understanding the influence of the autopilot system, businesses can strategically position their products and create touchpoints that foster familiarity, ultimately optimizing the path of purchase.](#)

To optimize the path of purchase, businesses need to identify and leverage the key touchpoints that activate the autopilot system. These touchpoints encompass various sensory cues, including visual, auditory, olfactory, and tactile elements, that evoke emotions and memories associated with specific brands or products. By strategically designing touchpoints, such as consistent branding, recognizable packaging, or familiar jingles, businesses can create strong associations that activate the autopilot system, driving consumers toward their products. Understanding the power of touchpoints and their impact on the autopilot system enables businesses to create a seamless and memorable path of purchase that enhances brand loyalty and drives repeat sales.

Moreover, businesses can optimize the path of purchase by incorporating techniques that strengthen the associations formed by the autopilot system. For example, offering loyalty programs, personalized recommendations, or incentives can reinforce the positive experiences and preferences tied to the autopilot system. By aligning marketing efforts with the autopilot system's inherent drive for familiarity and habit, businesses can create a sense of comfort and reliability that enhances the path of purchase. This approach nurtures consumer loyalty, increases customer retention, and generates positive word-of-mouth referrals.

3.2 How to Influence Consumer Purchasing Decisions: Integrating Autopilot and Pilot Systems

Understanding how to influence consumers to buy a particular product effectively is a key challenge for marketers and businesses. The decision-making process involves a combination of conscious deliberation (pilot system) and subconscious, habitual responses (autopilot system). This introduction explores the steps needed to sway consumer purchasing decisions, encompassing both autopilot and pilot decision-making processes. By integrating these two systems, businesses can enhance their strategies to drive consumer behavior and increase product sales.

The first step is capturing consumers' attention through consistent and impactful touchpoints that activate the autopilot system. These touchpoints include visual cues, auditory elements, brand recognition, and positive associations formed through prior experiences. By creating a strong brand identity and engaging marketing materials, businesses can establish familiarity and trust, triggering the autopilot system to incline towards their product.

Once the autopilot system is engaged, the next step is to optimize the purchase path by strategically designing the consumer journey. This involves creating a seamless and intuitive purchasing experience that aligns with the autopilot system's inclination towards routine and comfort. Streamlining the process, simplifying decision points, and reducing cognitive effort can facilitate autopilot decision-making. For example, providing clear product information, easy navigation on e-commerce platforms, and simple checkout processes can remove barriers and friction, increasing the likelihood of consumers completing the purchase.

While the autopilot system is influential, it is essential to recognize the role of the pilot system in more complex purchasing decisions. The third step involves appealing to the pilot system by providing information, benefits, and differentiation that cater to consumers' conscious and rational decision-making. This includes highlighting product features, addressing potential concerns or objections, and presenting a compelling value proposition. By providing a strong rationale and addressing consumers' needs and desires, businesses can gain the trust and confidence of the pilot system, reinforcing the decision to purchase.

Lastly, maintaining post-purchase satisfaction is crucial for driving repeat purchases and fostering consumer loyalty. Ensuring a positive product experience and providing excellent customer service can strengthen the autopilot system's association with positive emotions and reinforce the decision to repurchase. Additionally, actively seeking feedback and engaging with customers post-purchase can strengthen the pilot system's trust and satisfaction, creating brand advocates and promoting positive word-of-mouth.

4. From Positioning to Touchpoints - Bringing Value to Life

Bringing value to life through purchasing entails more than just providing a product or service. It involves understanding and meeting consumers' needs and desires in a way that goes beyond their expectations. For instance, a luxury brand may focus on delivering exceptional craftsmanship, exclusive materials, and impeccable customer service, creating a premium purchasing experience. By going the extra mile and exceeding customer expectations, businesses can elevate the perceived value and create a lasting impression.

One aspect to pay attention to when bringing value to life through purchasing is personalization. Tailoring the purchasing experience to individual preferences and needs can significantly enhance value. For example, an e-commerce platform that offers personalized product recommendations based on previous purchases or browsing history demonstrates attentiveness to customer preferences. By leveraging data and technology, businesses can create personalized shopping experiences that cater to the unique needs of each customer, fostering a sense of individuality and enhancing value.

Another important factor is transparency and ethical considerations. With the increasing emphasis on sustainability and ethical practices, consumers are seeking brands that align with their values. By adopting transparent supply chains, responsibly sourced materials, and actively

supporting social and environmental initiatives, businesses can bring value to life by resonating with consumers' ethical concerns. For instance, a clothing brand that utilizes sustainable materials and ensures fair labor practices provides value beyond the product itself, appealing to consumers who prioritize sustainability and ethics.

Moreover, the phase following the purchase is pivotal in actualizing value. Guaranteeing customer contentment and delivering exceptional post-sales service can considerably influence the overall perception of value. For instance, a business that implements a seamless return policy offers prompt and efficient customer support and provides personalized follow-up showcasing its dedication to ensuring customer satisfaction. By emphasizing customer happiness beyond the point of purchase, companies can reinforce their value proposition, foster trust, and stimulate repeat purchases as well as positive recommendations.

Conclusion:

This research paper has explored key aspects, including the role of cultural influences, the impact of the autopilot and pilot systems, and strategies for bringing value to life through personalized experiences, transparency, and post-purchase satisfaction.

Cultural influences significantly shape consumer decision-making, with individuals' backgrounds, values, and norms impacting their preferences and purchasing choices. The autopilot and pilot systems provide insights into decision-making processes. The autopilot system, driven by familiarity and habit, guides routine purchasing decisions, while the pilot system engages in conscious, rational thinking for more complex choices. Businesses can optimize the path of purchase by strategically designing touchpoints and providing relevant information to influence both systems effectively. Bringing value to life goes beyond product positioning. Personalization, transparency, and ethical considerations resonate with consumers and enhance perceived value. Additionally, post-purchase satisfaction and exceptional after-sales service solidify the value proposition, foster trust, and drive repeat purchases.

In conclusion, understanding consumer behavior empowers businesses to influence purchasing decisions. By considering cultural influences, leveraging the autopilot and pilot systems, and delivering value through personalization and exceptional experiences, businesses can build meaningful connections with consumers and drive positive outcomes.

References

- Barden, P. (2013, February 1). *Decoded: The Science Behind Why We Buy*.
- BOZKANAT, E., & GÖKSU, O. (2020, January 28). INTERPRETING PERSUASION IN POLITICS THROUGH THE WORKS OF ROBERT B. CIALDINI. *Öneri Dergisi*, 15(53), 77–104. <https://doi.org/10.14783/maruoneri.676373>
- Vander Schee, B. A. (2009, January 23). Predictably Irrational: The Hidden Forces That Shape Our Decisions20092Dan Ariely. *Predictably Irrational: The Hidden Forces That Shape Our Decisions*. New York, NY: HarperCollins 2008. 280 pp. \$25.95 www.harpercollins.com. *Journal of Consumer Marketing*, 26(1), 57–58. <https://doi.org/10.1108/07363760910927064>
- Eyal, N. (2014). *Hooked: How to Build Habit-Forming Products*. Penguin.
- Sharp, B. (2010, March 1). *How Brands Grow: What Marketers Don't Know*.

The financial stability of households: a methodology for assessing

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Key words: stability, households, methodology, assessing

Introduction. The financial stability includes many aspects of households' financial activities, such as assessing their financial resources, financial security indicators, realizing investment potential, making savings, etc. And also is subject to endogenous and exogenous factors. As result, there is no single methodology for assessing financial stability in domestic science and practice. This is due to the multidimensional nature of the analysis of households' financial activities.

The methodology for assessing the financial stability of households should take into account the following rules:

- a) the possibility of its use to characterize the financial stability of households;
- b) the formation of optimal values of relevant financial indicators;
- c) the selection of relevant indicators for assessing all components of financial activity to ensure the accuracy of calculations and avoid imbalances in the process of managing financial resources;
- d) focusing separately on the macro- and microeconomic level of research, due to the different factors of influence.

Methods. In the research, it is advisable to synthesize the cash flow and indicative methods in assessing the financial stability of households. Based on the use of these methods, we propose an integral (aggregate) indicator (or indicators). This combination will provide the most accurate results in the study of household financial stability.

Results. The methodology for calculating the financial stability of households (The Methodology) should be understood as a set of methods and techniques used by public authorities (at the macroeconomic level) and households (at the microeconomic level) in an appropriate adequate to assess the indicators of income, expenses, savings, and investments for the best option for the development of the household. The author's methodology for assessing the financial stability of households is shown in Fig. 1.

The Methodology defines the methodological basis for managing its financial resources over a certain period. The purpose of its development is to increase the financial stability of households in the short, medium, and long term. The goal is achieved on the basis of coherence of decisions on projected amounts of income, expenses, savings, and investments at all stages of household financial resource management. The Methodology makes it possible to predict the formation and use of financial resources of households in their composition, dynamics and structure, to determine the impact of exogenous and endogenous factors on the indicators of income, expenses, savings, and investments.

Information support of the Methodology is provided by empirical and theoretical methods of scientific knowledge. In particular, the following empirical methods are used:

- 1) observations when updating data on the aggregate resources of households, their socio-economic status, differentiation of living standards, as well as on macroeconomic indicators of state development (data from the State Statistics Service, the State National Bank);

2) self-assessment in a survey of households on the availability of certain goods and services, their income level, living conditions, and the effectiveness of social support programs (data from the State Statistics Service of Ukraine);

3) analysis of the results of the implementation of the plan for household budget revenues and expenditures, as well as the dynamics of actual indicators by component (data from an individual household).

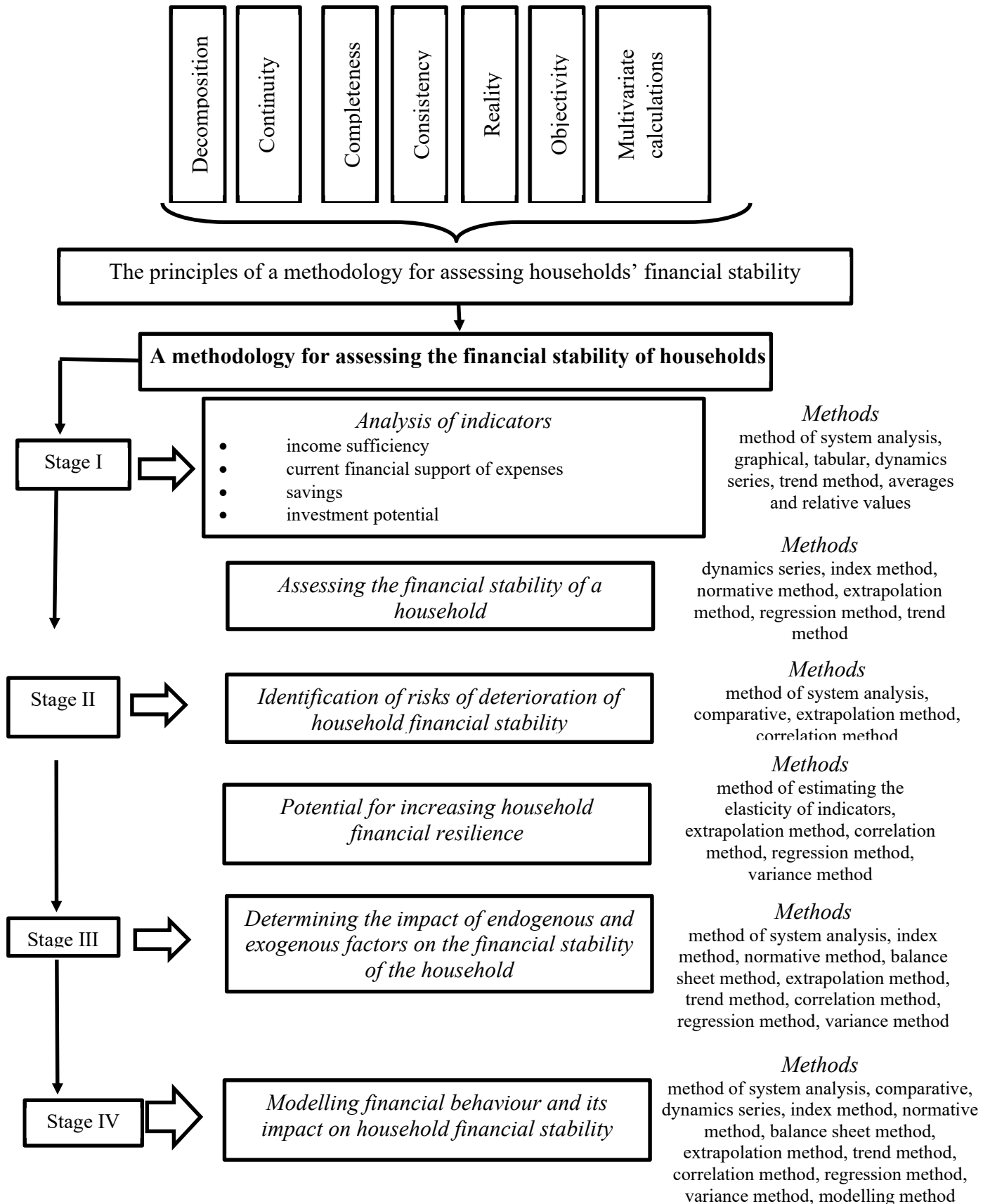


Figure 1. A methodology for assessing the financial stability of households

The basis of the proposed Methodology is a set of methods of theoretical (analogy, analysis, synthesis, induction, deduction, etc.), empirical (observation, experiment, description, statistics, etc.) and metatheoretical (dialectical method and method of system analysis) levels of scientific research that complement each other.

Theoretical methods of scientific research:

1) abstraction in identifying endogenous and exogenous factors of influence on the financial sustainability of the households, and the risks of its deterioration (at the macroeconomic level of the research – according to the sources of the State Statistics Service, the State National Bank and at the microeconomic level – according to the data of an individual household);

2) analysis in identifying individual components of household financial sustainability: the level of sufficiency of their income, current financial support for expenses, savings, and investment potential. These indicators are assessed at the macroeconomic level of the research – according to the sources of the State Statistics Service of Ukraine, the National Bank of Ukraine and at the microeconomic level – according to the data of an individual household;

3) based on the analysis of individual components of household financial activity, modelling of household financial behaviour to ensure its financial sustainability in the short, medium, and long term. This method can be combined with empirical methods of expert opinions in the case of trust management of household financial resources, rating in the differentiation of living standards (at the macroeconomic level of scientific research), determination of tools for saving, investment of households, choice of financial institutions, etc. (at the microeconomic level of scientific research).

The assessment of the financial stability of a household according to the proposed Methodology should be based on the following principles:

- (a) Decomposition, which is based on dividing the financial assessment system into separate parts, namely: the allocation of indicators for analyzing the adequacy of income, current financial security, savings and investment potential of the household – to create conditions for an effective study of the financial stability of the household;
- (b) Continuity (provides for the continuity of financial sustainability assessment to ensure that planned income, expenses, savings and investments are linked to their forecast data and take into account possible changes in the external and internal environment of the household);
- (c) Completeness (provides for a full assessment of household income and expenditures by the budget);
- (d) Consistency (provides for the coordination of indicators of income, expenses, savings and investments with each other in accordance with a logically consistent scheme of financial activity of the household);
- (e) Reality (implies the validity of the values of indicators of household income, expenses, savings, and investments based on reliable and truthful information);
- (f) Objectivity (involves taking into account all factors that affect the assessment of the financial stability of the household);
- (g) Multivariate calculations (involves the development of several scenarios of the household's financial activity, as well as several options for assessing its financial condition (pessimistic, optimistic) to obtain an adequate assessment of the household's financial stability).

When determining the indicators for assessing the financial stability of a household, the calculation is carried out for each object of research (income, expenses, savings, investments) – separately, and at two levels – macroeconomic and microeconomic. The methodology involves the use of the following research methods:

- (a) The method of system analysis – to study the selected object of study of household financial sustainability as a single system, to structure it (income, expenses, savings, investments of households) and further analysis;
- (b) Graphical method – to quickly find the value of the function by the corresponding value of the argument, a visual representation of correlation dependencies;
- (c) Tabular method – for the accumulation, processing and storage of digital information, intermediate or final calculations, and determination of deviations in absolute or relative values;
- (d) Comparative method – for comparing actual values with planned, regulatory indicators of previous periods or prospective ones, indicators of other countries, etc;
- (e) Dynamics series – to characterize changes in the studied phenomena over time, identify features, trends, and patterns of their development, and degradation, forecast future values and express them in digital or graphic forms;
- (f) Method of estimating the elasticity of indicators – to assess and identify the interdependence of household financial indicators and macroeconomic indicators;
- (g) Balance sheet method – for comparing household income and expenses, allows you to link the use of funds depending on the amount of income. It serves as a tool for measuring proportions in kind and in value. It is widely used at the planning stage of financial resource management;
- (h) Averages and relative values – for comparing indicators of two or more objects; for studying the relationships between phenomena and their features; for characterizing changes in the levels of phenomena over time; for conducting factor analysis of phenomena to identify unused reserves. Relative values are used to determine the degree of plan implementation, changes in indicators (indicators) in the dynamics, to determine the proportion of a part in the whole, to correlate aspects of the total with each other, to characterize the degree of spread, development or degradation of phenomena, to correlate the effect with the resources or costs expended to achieve it;
- (i) Trend method – to describe the trend in the formation and use of household financial resources. The result – the financial stability of the household – is associated exclusively with time, since the influence of all major factors can be expressed through the time factor;
- (j) Index method – to determine the degree of influence of individual factors on the overall result by using the relative value arising from the comparison of complex economic phenomena formed from various elements that cannot be directly summarized; to correlate the values of the current and base periods;
- (k) Normative method – for applying standards and norms necessary for calculating indicators that measure phenomena and processes and comparing them with optimal values;
- (l) Correlation method – to determine the degree of dependence (significant or insignificant) of the resultant value on one or more variables;
- (m) Regression method – to determine the dependence of one or more performance indicators on one or more factors. This relationship is quantified by building a regression equation (or regression function);
- (n) Variance method – to determine whether the sample indicators of the relationship between the resultant and factor attributes are sufficient to extend the data obtained from the sample to the general population;
- (o) Extrapolation method – to determine the values of the studied indicators based on the dynamics of their development. Forecast indicators are calculated based on adjusting the level of indicators achieved in the base period by a relatively stable rate of change;

- (p) Modelling method – for studying the object of knowledge on the basis of abstract and logical thinking on the principles of clarity and objectivity. It is used to build different models of financial behaviour to determine their impact on the financial sustainability of households.

The proposed methods are categorized according to the stages of calculation according to the Methodology. Each of the calculation stages is characterized by its parameters that require the use of a particular method or several methods simultaneously.

Within the proposed methodology, we propose the following stages of calculations;

Stage I: Analysis of indicators of income sufficiency, current financial support of expenses, savings, and investment potential of households (Methods: method of system analysis, graphical, tabular, dynamics series, trend method, averages and relative values);

Stage II: Assessing the financial stability of a household (Methods: dynamics series, index method, normative method, extrapolation method, regression method, trend method); Identification of risks of deterioration of household financial stability (Methods: method of system analysis, comparative, extrapolation method, correlation method); Potential for increasing household financial resilience (Methods: method of estimating the elasticity of indicators, extrapolation method, correlation method, regression method, variance method);

Stage III: Determining the impact of endogenous and exogenous factors on the financial stability of the household (Methods: method of system analysis, index method, normative method, balance sheet method, extrapolation method, trend method, correlation method, regression method, variance method);

Stage IV: Modelling financial behaviour and its impact on household financial stability (Methods: method of system analysis, comparative, dynamics series, index method, normative method, balance sheet method, extrapolation method, trend method, correlation method, regression method, variance method, modelling method).

Conclusions. Thus, the study made it possible to develop a methodological toolkit for assessing the financial stability of a household by the proposed principles. The proposed algorithm of the Methodology for assessing the financial stability of households will help to create conditions for its ensuring at both the microeconomic and macroeconomic levels.

AGEISM IN THE WORKPLACE

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ABSTRACT

The World Health Organization (WHO) defines ageism as "stereotyping, prejudice, and discrimination against people on the basis of their age" regardless of their age groups (World Health Organization, Citation2020). This is age discrimination, which can manifest itself in the workplace in the form of precedent-setting, unwarranted assumptions about the capabilities and competencies of employees based on their age.

There is a substantial body of scientific literature that has concentrated on unfavorable perceptions of older workers, including that they are less productive, less driven, less adaptive, rigid, and resistant to change than their younger colleagues. (Levy & Macdonald, Citation2016; Marchiondo et al., Citation2019).

Nevertheless, ageism is not only associated with older workers, but also with workers from all other age groups (Snape & Redman, Citation2003). For instance, younger employees may face unfair disadvantages in promotions and deployment because they are viewed as unfit for particular positions or as being less devoted to their employer than older employees. Therefore, I believe it is essential to discuss ageism in the workplace, regardless of an individual's age, as discrimination may appear with regard to any of the age categories.

INTRODUCTION

Ageism, or age discrimination, is a significant issue in the workplace that can take many different forms. Ageism, for instance, might appear as bias in the job. Many individuals believe that older workers are less efficient, less able to adapt to new ideas or technology, less flexible, and less driven than their younger counterparts. Older workers may not receive the same opportunities as younger workers as a result of these biases. They might not get training, mentoring, or possibilities for advancement, for instance. ("Ageism in Working Life: A Scoping Review on Discursive Approaches).

The study, "Ageism at Work: The Impact of Intergenerational Contact and Organizational multi-age perspective" from European Journal of Work and Organisational Psychology, help to understand what perceptions of age can lead to ageism in the workplace.

Another way ageism in the workplace can manifest itself is through inequality. Older workers may often face job cuts due to reduced productivity or age. They may also be paid less than younger workers, even if they are doing the same job. Some organizations may also set an upper age limit for hiring new employees.

Ageism in the workplace can result from inequality, as evidenced by articles like

"Perceived age discrimination in the workplace: the mediating roles of job resources and demands" in Journal of Managerial Psychology show how inequality can lead to ageism in the workplace.

It is not uncommon also for young workers to experience ageism at work. This issue is frequently founded in the widespread myth that younger workers are more energetic and adept at technology than their more experienced counterparts. However, such a notion might have negative effects, namely ageism, a pernicious kind of discrimination founded on age-based prejudices. (Age and work-related motives: Results of a meta-analysis. 113, 1-16.)

There are several ways in which ageism against young employees may occur at work. For instance, their youth may cause them to be disregarded or underestimated in their offerings. They could encounter obstacles to promotion as a result of assumptions about their lack of experience. (Exploring the relationship between ageism and career development of older workers.)

Ageism in the workplace has been proven to be a reality. For instance, a 2020 study from King's College London discovered that young people are more likely than older coworkers to be age-determined at work. As they ascended the corporate ladder, they discovered that they were less than their older counterparts and more likely to come across physicians.

MITIGATING AGEISM IN THE WORKPLACE: STRATEGIES FOR FOSTERING INCLUSIVITY AND EQUALITY ACROSS GENERATIONS

As stated above, ageism in the workplace is a major issue for employee empowerment and a healthy work environment. However, there are several ways to deal with this problem that can be considered.

The first way to combat ageism in the workplace is through education and awareness. Ageist stereotypes can be avoided by educating workers about how unfair and incorrect they are. For instance, offering training and workshops so that staff members can learn how to respect senior staff members and how they can contribute to the team and the business as a whole. (Abrams, Z. I., & von Hippel, W. Ageism in the workplace.)

The second way is to create policies to combat ageism in the workplace. This can entail taking action to prevent age-based discrimination, such as embedding these safeguards in the company's policies and procedures, placing them in employment contracts, and setting up systems to monitor and handle infractions.

A third way to combat ageism in the workplace is to encourage diversity in the team. To build a more diverse and inclusive team, this may involve hiring workers from various age groups and cultural backgrounds. It may also entail implementing initiatives to promote diversity within the team, such as enhancing the presence of various cultural activities and events at work. (Abrams, Z. I., & von Hippel, W. Ageism in the workplace.)

A fourth way to combat ageism in the workplace is to use flexible work arrangements. Age-related demands can be accommodated for through flexible work arrangements like telecommuting, part-time employment, and work-agreement scheduling. Flexible work arrangements may be a better choice for some older individuals who find it challenging to work full-time or long hours in one location. (Ayalon, L., & Tesch-Römer, C. Taking a closer look at ageism: Self-and other-directed ageist attitudes and discrimination.)

A fifth way to combat ageism in the workplace is to develop support programs for older workers. For older workers, this may entail expanding training, mentoring, and coaching possibilities. It may also entail developing retraining programs for those looking to change careers. These programs can aid older workers in honing their abilities and getting ready for new challenges. (Ayalon, L., & Tesch-Römer, C. Taking a closer look at ageism: Self-and other-directed ageist attitudes and discrimination.)

Combating ageism in the workplace necessitates a multifaceted strategy. This includes training, rules, team diversity, flexible working options, and senior employee support programs. Addressing the issue of age discrimination not only adds to a more inclusive and courteous work environment, but it also improves the team's overall efficiency and production.

CONCLUSION

This academic essay examined the topic of ageism in the workplace and its negative consequences. I outlined that ageism includes negative stereotypes and discrimination based on age and that it can lead to less productivity, dissatisfaction among employees, layoffs, and conflicts within the company.

The essay recommends various strategies for combating ageism in the workplace, such as increasing employee age diversity, educating and informing employees and managers about ageism, and developing flexible work settings that allow people to remain productive throughout their careers.

Finally, ageism is a severe issue in the workplace that can have a detrimental impact on productivity, morale, and employee happiness. As a result, businesses must take action to prevent ageism by providing a work atmosphere that welcomes people of all ages, as well as teaching employees and management about the issue and how to resist it. All of this can contribute to a more effective and productive work environment, as well as increased employee satisfaction and motivation.

REFERENCES

1. *Ageing: Ageism*. World Health Organization (WHO). <https://www.who.int/news-room/questions-and-answers/item/ageing-ageism>
2. Bae, S., & Choi, M. (2022). Age and Workplace Ageism: A Systematic Review and Meta-Analysis. *Journal of Gerontological Social Work*, 1–15.
3. Snape, E., & Redman, T. (2003). Too old or too young? The impact of perceived age discrimination. *Human Resource Management Journal*, 13(1), 78–89.
4. Previtali, F., Keskinen, K., Niska, M., & Nikander, P. (2020). Ageism in Working Life: A Scoping Review on Discursive Approaches. *The Gerontologist*.
5. Iweins, C., Desmette, D., Yzerbyt, V., & Stinglhamber, F. (2013). Ageism at work: The impact of intergenerational contact and organizational multi-age perspective. *European Journal of Work and Organizational Psychology*, 22(3), 331–346.
6. Yeung, D. Y., Zhou, X., & Chong, S. (2021). Perceived age discrimination in the workplace: the mediating roles of job resources and demands. *Journal of Managerial Psychology*, 36(6), 505–519.
7. Fasbender, U., Wang, M., & Deller, J. (2019). Age and work-related motives: Results of a meta-analysis. *Journal of Vocational Behavior*, 113, 1-16.
8. Park, J. W., & Park, H. J. (2016). Exploring the relationship between ageism and career development of older workers. *Journal of Career Development*, 43(2), 154-168.
9. "Attitudes towards ageing: Implications for societal ageing in the 21st century" 2020 King's College London. (2020). *King's College London*, 11–79.
10. Abrams, Z. I., & von Hippel, W. (2019). Ageism in the workplace. *Annual Review of Organizational Psychology and Organizational Behavior*, 6, 141-165.
11. Ayalon, L., & Tesch-Römer, C. (2018). Taking a closer look at ageism: Self-and other-directed ageist attitudes and discrimination. *European Journal of Ageing*, 15(3), 241-244.
12. Finkelstein, L. M., Ryan, K. M., & King, E. B. (2013). What do the young (old) people think of me? Content and accuracy of age-based stereotypes held by different age groups. *Journal of Applied Psychology*, 98(5), 804-821.

Specifications of the accounting methodology of radial-polar charts in statistics for management

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ABSTRACT

The manuscript considers the centers of the polar graphs as centers of equilibrium in the decision making of non-financial entities. Considering the average periods as dynamic measures of the decision making of entities, their representation in the axes of a radar chart takes different geometric shapes. Each geometric figure is a management class and they differ from each other by the greater or lesser amplitude of the distances between radial axes. Management classes contain management types that are polar charts and represent a balance between the activities represented on a radar chart. The dispersion between the management centers of the polar charts and the Cartesian centers of the radial charts explains the relationship between the accounting structures of financial statements and geometric figures generated.

1. INTRODUCTION

The making decisions have effects on activities of units of activity (SNA, 2008) according to Integrated Framework and Compendium Bundle or Internal Control (COSO, 2013). The manuscript obtains this effect by taking average periods as axes of radar chart. Additionally, considering cultural effects on transactions (Williamson, 1983, Bhardwaj, at all 2022) and location of units of activity (Krugman, 1999- Marchionni, 2023), types of management are adaptations on trade conditions of markets include in each radar chart.

The equilibria of activities are adaptations of entities to making decisions and it allows obtaining the management centers from a polar chart. The dispersion between the Cartesian centers of the radial charts and the management centers of the polar charts is considered as the cultural effect of transactions on the dynamic activity of entities (Pérez, 2022). The indicators to assess management are projected on perimeter distances of a radar chart and they are deducing from this geometrical figure. Following criterion of psychology image processing, sufficiency indicators have different symbols (Lindsay, P., & Norman, D. 1977, Prakash, 2022). This manuscript aims to explain the risks of management by geometric images, according to the accounting conceptual framework (FASB, 2018).

Alternatively, and linked to the visual representation of business activity, the manuscript presents the structures of the annual accounts through Dadiv's stars as an extension of Piper's graphs (Chadha, D.K. 1999. Hunter, J.D. 2007). Following the objectives of the previous paragraph, both the polar graph and the Piper graph are related and represent the effects of the continuous action of the activity on financial statements of the entities.

The manuscript presents coefficients to measure the financial and economic effectiveness of decision-making, contrasting them with alternative cause-effect variables outside of what is represented in the respective graphs. The following sections contain developing the content of this introduction to present conclusions about the research carried out and accounting is considered a formal science of a socioeconomic nature.

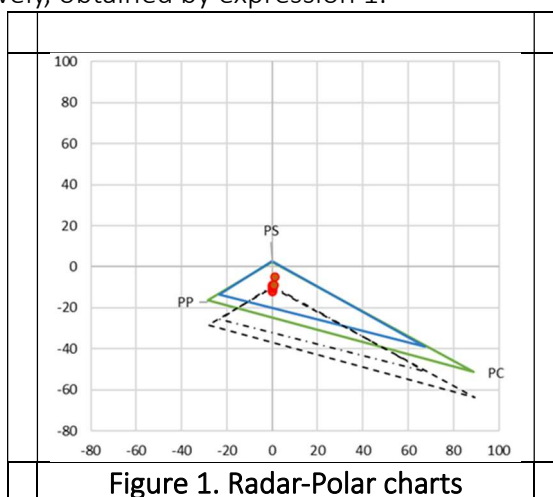
2. ACCOUNTING METHODOLOGY OF RADAR-POLAR CHART.

2.1. THE ONGOING MANAGEMENT / ONGOIN CONCERN: RADAR-POLARD CHART.

The ongoing management of the activity or ongoing concern is an accounting criterion applicable to entities by the account auditors when issuing their reports on the solvency of entities to continue with their activity. The financial statements are synthesized information about the decision-making of company managers. Consequently, a COSO “actor” likes to know what effect this action would have on all business activities to maintain continuous activity in the environments in which they are located.

The manuscript considers that the knowledge of what the common project in which a group of people with different responsibilities is involved should be known by all. Therefore, performance results should be generally explained to a variety of people with shared interests, including investors, borrowers, customers, and markets in general. This function can be covered by the accounting methodology of polar radar charts because the dynamic activity explained by a geometric figure and accompanied by symbols that evaluate the activities represented in it covers a wide spectrum of people interested in the results of the management carried out.

The annual accounts report on the activity values managed in a period by application of the principle of double entry, making differences between parts and counterparts in the accounting records of a system of accounts. There are two criteria to report financial statements, the accumulated accounting value on profits & loses account and compensation them on balance sheets. So, by relating the balance sheet and accounting income accounts through the average maturity periods, we can measure the dynamic activity of the entities and represent it in a radial graph. The result of this action is Figure 1, where PS, PC and PP are the sales, collection, and payment periods, respectively, obtained by expression 1.



$$\frac{\text{Economic or Financial flow}}{t (365)} = \frac{\text{Mean Value of Current Capital}}{P_i} \quad (1)$$

Where (a) The economic financial flow is expense or income from/to the respective markets, the parts of the accounting record. (b) Mean values of Current Capital are accounting element related to flows as counterpart respective flows. (c) P_i renewal time of a credit (lending/borrowing) or a stock of Current Capital. These elements are exchanged by the companies in their decision-making and within the commercial object that defines their activity.

Radar charts are geometric figures of the dynamic activity of companies and are represented on Cartesian axes. These geometric figures do not represent the equilibria between activities in decision making, they are only Cartesian references of accounting variables. The equilibrium representation should show how the company's activities fit into decision making. This aim is relative management center (round bread red) of figure 1. The dispersions between Cartesian and Management centers are adjustments of the companies in trade and business management. The Cartesian references of the management centers are the intersections of the lines whose slope are tangents of the mean angles of the Cartesian references on respective mean periods. Their Cartesian references are origin changes to form polar charts, represented by discontinued lines, and they are real representations of making decisions. The perimeter distances are tension between two axes of polar charts, which parallel to those of radar chart. The measurement of these distances allows obtaining management classes according to their extensions as follows:

Table 1.- Classes of managements			
Classes management	Order to classes 1	Classes management	Order to classes 2
1Fist (1F)	PDT > PDA > PDS	2Fist (2F)	PDT > PDS > PDA
1Middle (1M)	PDA > PDT > PDS	2Medle (2M)	PDS > PDT > PDA
1 End (1E)	PDA > PDS > PDT	2End (2E)	PDS > PDA > PDT

The classification of classes of management take attention to extension of perimeter distance of treasure activity (PDT), located on bottom of the radar-polar charts. However, the first criterion followed is to compare the perimeter distances of the acquisition (PDA) and sale activities. (PDS). When the perimeter distances of the acquisition are greater than those of the sales, the managing classes have assigned the number 1, and they have assigned the number 2 when the perimeter distances of the sales are greater than those of the acquisition. According to, position of PDT has assigned letters F (first), M (meddle) and E (end) on first criterion applied.

The application of cosine theorem and Euclidean distances between polar equations or average period measure perimetral distances. The classes of management (CoM) and cartesian references of Relative Management Centers (X^{RMC} , Y^{RMC}) on figure 1 are in table 1. The company maintains the same management class throughout the annual periods and the Management Centers (MCs) continually change from up to down. These movements are Type of Management (ToM) of a same class of management.

Table 2.- Class of Management and Dispersion of Management

year	CoM	X^{RMC}	Y^{RMC}	D(RMC)	MD(RMC)
2021	2F	0,269742249	-12,1962448	12,19922736	12,19922736
2020	2F	0,184953859	-11,7155099	11,71696975	11,71696975
2019	2F	0,216109364	-10,52388319	10,52610187	10,52610187
2018	2F	0,263673822	-9,723559531	9,727133896	9,727133896
2017	2F	0,27067912	-10,28385029	10,28741192	10,28741192
2016	2F	0,243502947	-9,459557349	9,462690892	9,462690892
2015	2F	0,242262236	-8,940084383	8,943366244	8,943366244
2014	2F	0,288648061	-9,159135306	9,163682516	9,163682516
2013	2F	0,311769633	-9,592569303	9,597634403	9,597634403
2012	2F	0,335755199	-9,484261182	9,490202407	9,490202407
2011	2F	0,852625338	-8,934905828	8,97549509	8,97549509

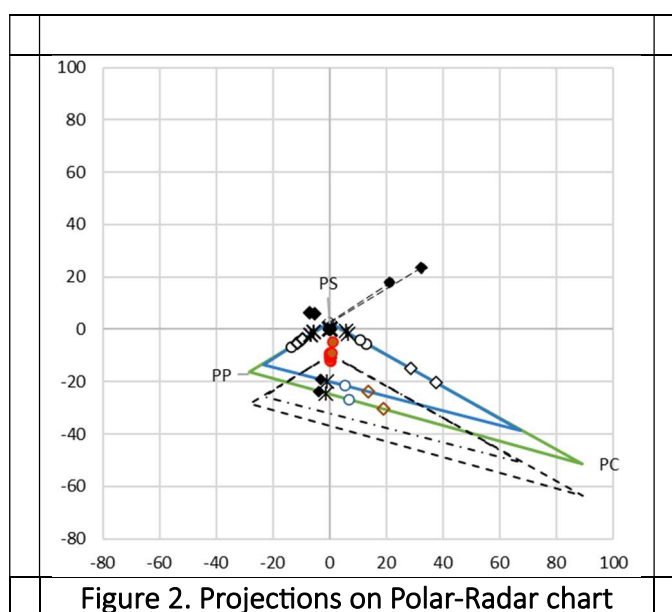
The dispersion between Cartesian and Management center identifies to Types of Management in each Class of Management. The dispersion between Radar Charts and Polar Charts can be found by Euclidean distances or by Module of dispersions, and both distance and module are positive because the slope is positive. The selection of one of them to work for a management criterion is a topic that will be addressed in subsequent sections, where the relationship between the dispersions and the measures on changes in the accounting structures of the annual accounts will be discussed.

2.2. THE OPTIMUM OF MANAGEMENT.

The hypothesis to consider is the existence of relation on geometrical figure of radar-polar chart and accounting structure of annual accounts. This relation cause-effect is represented visually on radar-polar charts. First step for develop initial hypothesis is the obtaining sufficiency indicators, comparing the perimeter distances through the sine theory together with the tangent of their angular differences to control the results obtained.

Table 3.- Sufficiency indicators.

Area	CLMs	CFS	CES
Sales 1	2E // 1M // 1E	$At / Ba > 1$	$Bt/Aa > PA/PS$
Sales 2	2M // 2F // 1F	$Ba / At > 1$	$Aa/Bt > PS/PA$
Purchases 1	2F // 1M // 1F	$As / Bt > 1$	$Bs/At > PS/PP$
Purchases 2	2M // 2E // 1E	$Bt / As > 1$	$At/Bs > PP/PS$
Treasury 1	1M // 1E // 1F	$Bs / Aa > 1$	$Ba/As > PP/PA$
Treasury 2	2M // 2E // 2F	$Aa / Bs > 1$	$Ba/As > PP/PA$



The measure of the operational objectives are sufficiency indicators deduced from the sine theory applied to each interior triangle of a polar chart. Economic and Financial criteria are sufficiency indicators according to maintain effects of economic variables on their expressions. So that, the angular relations of indicators CFS and CES in table 3 are respectively coefficients of financial and economic sufficiency, where subindex of angular coefficients respectively is (s) for sales, (a) for acquisition and (t) for treasury activities. The polar-radar chart has sales activity between axes ps and pc, treasure activity between axes pc and pp and finally acquisition activities are between pp and ps axes.

The projections on perimeter distances in Figure 2 are made from the intersection of linear equations generated from polar references of average period of maturity, considering their mean angular value.

Table 4. Components of Perimeter Distances.		
Coefficients	Projections	Symbol
Financial sufficiency	CFS for angles	Asterisk
Economic sufficiency	CES for angles	Balk fish (diamond)
Economic sufficiency	CES for periods	White fish (diamond)
Angular criterion dispersion.	Angular center or area	White bread (circle)

The angular coefficients (table 4) are angular relations which are adjoint angles of each axis of polar charts and have same value. This is effect of equilibria of management activities, therefore projections of relative centers of management and CFS coincide. These coincidences are visual control of projections the coefficients in table 4.

The coefficients of financial and economic sufficiency of the entities measure whether activities comply with the accounting principle going concern or ongoing management. This principle is in accordance with the projections in Table 4 on the perimeter distance, when companies obtain self-financing for each activity on the radar chart. These situations are optima manager and fulfill conditions of table 3 for CFS and CES. Their representations at perimeter distances occur when the asterisk is in the middle and other symbols surround it, regardless of their order, even though the projections are outside the perimeter distances (figure 2). This entity meets the management optimum in each annual period.

Consequently, the strategy of the companies is the adaptation of the activities to the conditions of the markets or adaptations of accounting structures of the annual accounts to them. The contrast between two images that represent the dynamic activity, and the static positions (annual accounts) must be related as cause and effect of decision-making. The following section explains the adaptation of accounting structures to market changes and includes the evolution of management centers.

3. ACCOUNTING STRUCTURES OF FINANCIAL STATEMENTS.

3.1. DAVID'S STAR GRAPHICS

The David's star graphics are extended version of Piper diagram which measure criteria are like Edgeworth's box. The structure of David's star includes effects of cultural effects on activity con companies by relation between Gibbs 1 and 4 in figure 3. The measures of location are for companies, politic centers and distances between company and center of politic decisions. This last distance is on bottom of Gibbs 1 and Cartesians distances of location companies and Center of politic decision (City Hall) are on the right and left sides of triangle, respectively. The other cultural factor considered is wage of employment and Gibbs 4 has on bottom the salary by employer respect to sales, the rent precipitate is on the left and average salary of sample is on the right side. The union of Gibbs 1 (location) and 4 (salaries) is the reference axis to contrast economic values with financial values, dispersion measures reappearing to explain the compensation between visually perceptible accounting structures. The accounting variables of Gibbs are explained in table 5 and their association has relation with non-financial and financial value of accounting variables. The Gibbs 5 and 6 are first variables and Gibbs 2 and 3 are second variables. So, three natures of value are contrasted in center of David's star, which are record in an accounting system: economic, financial, and monetary values. Considering the transformation of values in dynamic activity of entities, when one of them has accumulation, the ongoing concert is questionable. This inquiry is visually observable and measured by deduced dispersion from a visual figure, the David's star.

The manuscript presents the accounting variables in Gibbs charts in accordance with the aims indicated in the previous paragraph. The researcher is free to direct his research towards a different purpose, as well as to order the variables in the Gibbs graphs in an alternative way to that presented in Figure 3 and Table 5. The relation between G5 and G6 is as follows: monetary variables (G5R) with EBITDA (G6R), the right sides of Gibbs 5 and 6. So, visually is relation on main aggregated values contrasted with monetary variables. According to criteria of positions liabilities in financial statements, Gibbs 2 and 3 are financial results contrasted with financial sources. So, the left side of Tax and Extraordinary losses are related to current liabilities, explaining tax pressure and short-term debt management. These are on G2L and G3L variables in tables 5.

Table 5. Accounting variables of David’s Start

Gibbs	Economic criterion	Gibbs	Financial criterion
G6	SALES	G2	EBIT
G6L	OTHER COST	G2L	TAX AND EXTR. LOSS
G6R	EBITDA	G2R	PROFITS & LOSSES
G6B	COST G SOLD	G2B	FINANC. RESULT
G5	ASSETS	G3	LIABILITY & EQUITY
G5L	FINANCIAL	G3L	CURRENT L.
G5R	MONETARY	G3R	NO CURRENT L.
G5B	ECONOMIC	G3B	EQUITY

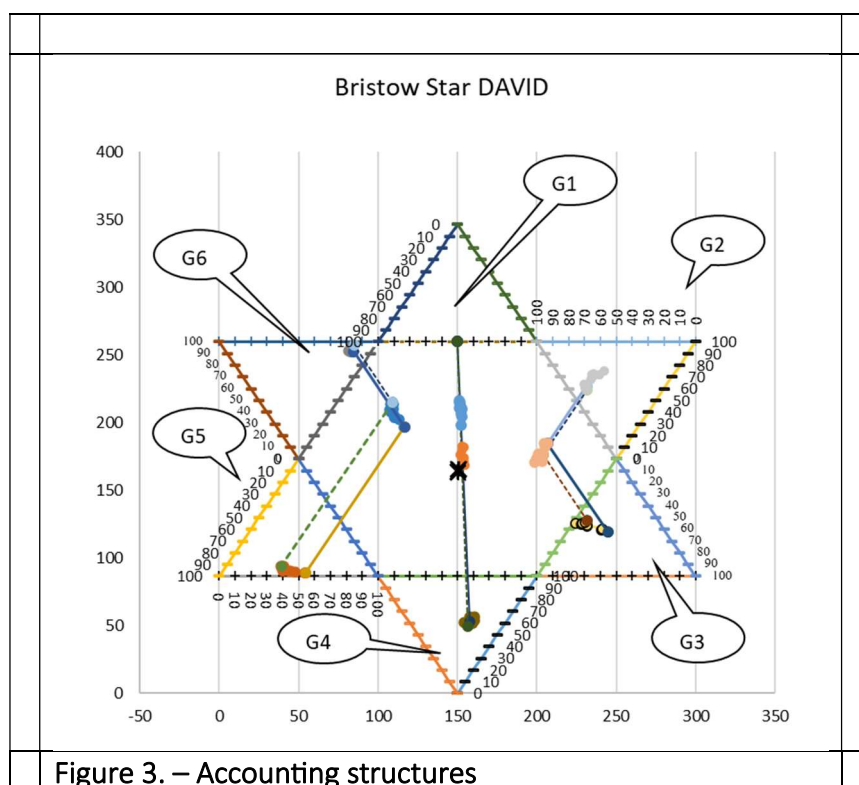


Figure 3. – Accounting structures

Considering the cause-effect relationships between dynamic activity and static positions of assets and liabilities on the balance sheet, the figure 3 includes management centers as asterisk symbols. The dashed lines correspond to the year 2011 and the solid ones to 2021. The entity maintains level of economic result (G6R) and tax pressure (G2L) but decreases monetary value (G5R) and too current liability (G3L). The compensation on Gibbs 5 is increase of economic assets (G5B) and the financial asset decreases (G5L). Respect to variation on Gibb 3, increase Equity (G3B) and decreases Non-Current Liability (G3L).

3.2. STATISTIC SPECIFICATIONS ON MANAGEMENT CENTRES.

The management centers are adjustments to changes in the conditions of the transactions in your decision making, and the distances between the Cartesian and the management centers are dispersions due to them. According to criteria follow in table 6 dispersions are visual representation of lienal equation interjections on hexagon of David's star.

Table 6. Dispersions in David's Star.

Distance	From	to	Comments.
D (2&3^1&4)	Interjection G2&G3	Interjection G1&G4	Cultural Dispersion Assets
D (5&6^1&4)	Interjection G5&G6	Interjection G1&G4	Cultural Dispersion Liability
DISTAN(Gs)	Interjection G2&G3	Interjection G5&G6	Static Dispersion
D(CRG)	Management Center	Cartesian centers	Dispersion of Management
D (2&3^0)	Interjection G2&G3	Cartesian centers	Assets Dispersion
D (5&6^0)	Interjection G5&G6	Cartesian centers	Liability Dispersion
D (1&4)	Position G1	Position G4	Cultural Factor Dispersion

The strategies of the companies to counteract the changes in the markets can be to agglutinate the effect of the disturbances in the conditions of the transactions or admit these disturbances in the transactions, transferring their effect to the accounting structure of the entity, without ruling out a shared strategy. which combines the two mentioned effects. When the first is adopted, there are strong dispersions in the management centers. The second strategy consists of maintaining dispersed management and adapting accounting structures to market conditions.

Table 7.-Measures of accounting dispersions

YEARS	D(2&3^1&4)	D(5&6^1&4)	DISTAN(Gs)	D(MC)	D(2&3^0)	D(5&6^0)	D(1&4)
2021(5&6)	53,9655	35,6607	90,9704	12,1992	57,7093	39,8261	207,1770
2020(5&6)	52,1689	36,3942	90,3948	11,7170	55,6960	40,3323	203,3406
2019(5&6)	50,6293	39,9701	93,3210	10,5261	55,4250	45,9100	206,2756
2018(5&6)	47,4672	42,5161	95,8717	9,7271	51,4459	50,0038	208,5734
2017(5&6)	49,3364	42,3568	98,8949	10,2874	53,7611	49,1776	206,6121
2016(5&6)	43,5415	44,9073	97,8201	9,4627	48,5722	53,3249	203,3281
2015(5&6)	45,6179	44,8138	98,9452	8,9434	49,7651	54,6002	205,9151
2014(5&6)	49,4814	41,4708	97,3308	9,1637	51,0926	53,6107	207,7855
2013(5&6)	47,9106	43,7176	101,0326	9,5976	50,5790	57,1928	209,7925
2012(5&6)	50,6043	41,9497	102,1509	9,4902	53,4071	55,9471	209,6936
2011(5&6)	51,1686	42,2330	102,4718	8,9755	53,8585	57,2958	210,4910
Av (*)	49,2629	41,4536	97,2004	10,0082	52,8465	50,6565	207,1804
Td (*)	2,8442	2,8998	3,9914	1,0354	2,6720	5,9941	2,3107
CVoP (*)	0,05774	0,06995	0,04106	0,10346	0,05056	0,11833	0,01115

(*) Where: Av: Average; Td: Typical Deviation; CVoP: Coefficient Variation of Pearson.

The measure of cultural dispersion D (1&4) has the lowest CVoP and the management dispersion measure D(1&4) has the highest CVoP. So, entity arranges management centers [D(MC)] to overcome market perturbations and adjusts assets [D(5&6^0)]. This is a characteristic of class management 2x (PDS>PDA) because entity lends more credit than it borrows from the markets. So, there is the decreasing on equity giving liquidity to markets with effects on decreasing of treasury.

The linear correlation coefficients in table 8 are those obtained from the variables in the above table 7. The conditions of results include linear correlation coefficients high 0,7 and several levels

of signification, assigning one (*), two (**) and three (***) for level significations between 10% and 5%, 5% and 1% and low 1%, respectively.

Table 8. Linear coefficient correlations

Dij / 1	D(2&3^1&4)	D(5&6^1&4)	DISTAN(Gs)	D(MC)	D(2&3^0)	D(5&6^0)	D(1&4)
D(2&3^1&4)	1	-0,868***	NP	NP	0,937***	NP	NP
D(5&6^1&4)		1	0,783***	-0,897***	-0,895***	0,863***	NP
DISTAN(Gs)			1	-0,843***	NP	0,949***	NP
D(MC)				1	0,795***	-0,945***	NP
D(2&3^0)					1	-0,73\	NP
D(5&6^0)						1	NP
D(1&4)							1

The results expected do not satisfy the relationship between the entity and the cultural factors in Gibbs 1 and Gibbs 4, location, and salary respectively. To overcome this inconsistency and others contradictor results, the variables of table 7 have been smoothed, correcting them with management dispersions. So, they are divided by dispersions of management centers.

Table 9. Linear coefficient correlations

Dij / D(MC)	D(2&3^1&4)	D(5&6^1&4)	DISTAN(Gs)	D(MC)	D(2&3^0)	D(5&6^0)	D(1&4)
D(2&3^1&4)	1	NP	0,829***	-0,784***	0,966***	0,815\	0,844***
D(5&6^1&4)		1	0,965***	-0,982***	0,784***	0,962***	0,962***
DISTAN(Gs)			1	-0,982\	0,894***	0,995***	0,989***
D(MC)				1	-0,866***	-0,977***	-0,99***
D(2&3^0)					1	0,87\	0,904***
D(5&6^0)						1	0,986***
D(1&4)							1

The results in Table 9 are more conclusive and indicate that there is no linear relationship between the dispersions of the management centers and those of the entity's accounting structures. To solve this approach and obtain coherence in the assessments made, the graphs in Figure 4 are evolutions of variables obtained from annual accounts.

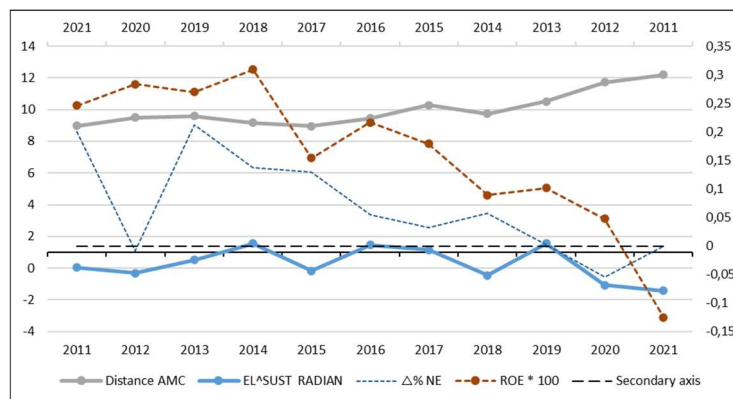


Figure 4. Evolutions accounting variables.

Acronym: AMC Accounting management center. EL^SR: radian of substitution elasticity. NE: numbers of employments.

The indicators of interest have relations with evolutions variables cause-effects of activities management. The interests of investors are the Return on Equity (ROE) and for employments are interannual variations of their numbers ($\Delta\%NE$). They have same evolutions, but they differ from evolution of Accounting Management Centers (AMC) dispersions. The elasticity of substitution is the ratio of capital elasticity of equity and liabilities with their respective accounting results, profits

& losses, and financial results. This measure evolution of interest rate of entity and have same evolution of ROE. The improving of correlation coefficients is justify according to results obtained by applying other indicators related to the management of entities.

CONCLUSION

the accounting record of all transactions is the pillar on which this methodology is built. Access to the results of the management action must be provided to those who participate in the same project, both for internal and external users, including accounting auditors. This purpose requires that accounting information be provided to a broad spectrum of users, and graphical representation is an alternative. Therefore, the manuscript develops the methodology from a visual representation that allows risk management to be perceived symbolically. Accounting and auditing professionals are the main actors in this manuscript and visual controls are established to ensure a reasonable judgment on the financial situation of the company, according to the dynamic sense of decision making by managers.

Likewise, the visual representation of the patrimonial situation is visually represented, including a measure of dispersion of the management carried out. This dispersion is contrasted with those obtained in the Star of David and is used as an adjustment measure to correct the statistical results that initially do not consider cultural effects in the standardized financial statements. That is, the manuscript defends a visual perception of both the dynamic and static activity of the entity, the latter being the patrimonial situation reached as a cause-effect of the former (dynamic).

Finally, the factors inherent to the management action, which are not contemplated in the accounting standards, should not be materially required in the presentation of the financial statements. That is, a ratio is a relationship between two classes of values out of the three that are included in an accounting information system. While the methodology applied in the manuscript contemplates a joint action and considers the application of the three classes of values that contain the financial statements in decision making. The measurement of the visual perception of the activity of entities from a figure directs the attention to its elaboration due to the cause-effect relationships that must exist. A measurement of all business activity is better than a partial measurement -ratios and simple indicators- to evaluate the decision-making adopted in its management.

BIBLIOGRAPHY

Bhardwaj, A., Nickerson, J, and Mahoney, J. (2022). Problem formulation for theorizing at the frontier: An Oliver Williamson inspired approach. <https://www.researchgate.net/publication/361619940>.

Chadha, D.K. (1999). A proposed new diagram for geochemical classification of natural waters and interpretation of chemical data. *Hydrogeology Journal*, 7, 431-439.

Committee of Sponsoring Organizations of the Treadway Commission (COSO). (1985) <https://us.aicpa.org/interestareas/businessindustryandgovernment/resources/riskmanagmentandinternalcontrol/coso-integrated-framework-project>.

Financial Accounting Foundation (FASB), (2018). Conceptual Framework for Financial Reporting. <https://www.ifrs.org/content/dam/ifrs/publications/pdf-standards/english/2021/issued/part-a/conceptual-framework-for-financial-reporting.pdf>

Hunter, J.D. (2007). Matplotlib: A 2D Graphics Environment. *Computing in Science & Engineering*, 9(3), 90-95.

Krugman, P. (1999). The Role of Geography in Development. *International Regional Science Review* 22, 2: 142–161. <https://journals.sagepub.com/home/irx>.

- Lindsay, P., & Norman, D. (1977). *Human Information Processing: An Introduction to Psychology* (2nd ed.). New York: Academic Press. <http://www.phon.ucl.ac.uk/courses/spsci/audper/SDT%20Lindsay%20&%20Norman%20App%20B.pdf>
- Marchionni, C., Okinas, P. (2023). The multiple-theories problem: The case of spatial industrial clustering EPA: *Economy and Space*. Vol. 55(1) 46–62. DOI: 10.1177/0308518X221122791.
- Pérez-Benedito M.A. (2022). Explaining Accounting Structures Changes by Applying the Accounting Methodology of Radar-Polar Chart. *Archives of Business Research* Vol. 10(No. 5):39-64. DOI: 10.14738/abr.105.12289.
- Prakash, D. C., Narayanan, R. C., Ganesh, N., Ramachandran, M., Chinnasami, S., & Rajeshwari, R. (2022, May). A study on image processing with data analysis. In *AIP Conference Proceedings* (Vol. 2393, No. 1). AIP Publishing.
- Williamson, Oliver E. (1981). The Economics of Organization: The Transaction Cost Approach. *American Journal of Sociology*, 87(3), p, 548-577. <https://www.journals.uchicago.edu/toc/ajs/current>.

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АНАЛИЗ КОРПОРАТИВНОЙ КУЛЬТУРЫ МЕДИЦИНСКОЙ ОРГАНИЗАЦИИ

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Аннотация. Настоящая статья описывает опыт применения обратной связи от пациентов и сотрудников медицинской организации при оценке корпоративной культуры. Автор подчеркивает необходимость использования объективных информационных источников при осуществлении оценки удовлетворенности клиентов клиник, а также последующей имплементации результатов обратной связи в процесс управления организацией.

Ключевые слова: корпоративная культура, индекс лояльности клиентов, индекс лояльности сотрудников, обратная связь, оценка корпоративной культуры, анкетирование.

Необходимость изучения корпоративной культуры организации подчеркивается многими учеными [1], [2], [3]. Исследователями обнаружено, что она оказывает значительное влияние на эффективность работы организаций, а в случае с организациями здравоохранения – на качество медицинской помощи населению [4].

Дэвис [5] определяет корпоративную культуру как образец разделяемых убеждений и ценностей, которые придают смысл членам учреждения, и обуславливают их правила поведения в организации. Следовательно, культура рассматривается как фактор, влияющий на отношение и достижения людей, коллективов и компаний [6].

Исследователями предлагается широкий диапазон инструментов оценки корпоративной культуры организаций. В рамках настоящего исследования мы использовали 3 инструмента оценки корпоративной культуры медицинской организации: анализ обратной связи от потенциальных и действующих клиентов клиники в информационных источниках, а также индекс лояльности пациентов и сотрудников клиники.

В качестве базы исследования нами был определен медицинский центр «Медикер ЮК». Данная организация здравоохранения предоставляет широкий спектр медицинских услуг: терапия, стоматология, хирургия (общая, пластическая), неврология, гинекология, урология, эндокринология, кардиология, физиотерапия, реабилитология, проктология, оториноларингология и др. Медицинский центр обслуживает население численностью 33 642 человека.

Для проведения анализа обратной связи от пациентов клиники, нами были изучены результаты анкетирования отдела экспертизы Медицинского центра «Медикер ЮК», изучены отзывы о Медицинском центре «Медикер ЮК» в информационной системе 2ГИС, Яндекс-карта, сайт 103/kz, изучены жалобы пациентов, зафиксированные в книге жалоб и предложений Медицинского центра «Медикер ЮК». Результаты оценок в 2ГИС были сравнены с результатами ближайших конкурентов Медицинского центра «Медикер ЮК». Также, нами был проведен опрос пациентов клиники по методике NPS.

Анализ обратной связи от сотрудников был осуществлен путем изучения результатов анкетирования, проведенного кадровой службой медицинского центра, а также путем проведения собственного анкетирования сотрудников медицинской организации с помощью опросника для определения лояльности персонала.

Результаты анализа обратной связи от пациентов клиники. Источниками обратной связи от пациентов в рамках настоящего исследования были жалобы и обращения пациентов в журнале МЦ «Медикер ЮК», отзывы в клиентов клиники в 2ГИС, Яндекс-карте, на сайте 103.kz.

В журнале жалоб и предложений МЦ «Медикер ЮК» за 2022-2023 гг. было выявлено 108 записей из них 10 жалоб. Выявленные жалобы относились к качеству работы регистратуры – 3, СМП – 1, врачей – 6. Все перечисленные жалобы по результатам экспертизы медицинским советом МЦ «Медикер ЮК» признаны необоснованными.

В гео-системе 2ГИС МЦ «Медикер ЮК» имеет высокий рейтинг (4,1 балла из 5 возможных). Всего в 2ГИС было оставлено 421 отзыв, большая часть из которых были позитивного характера (см. рис.1).

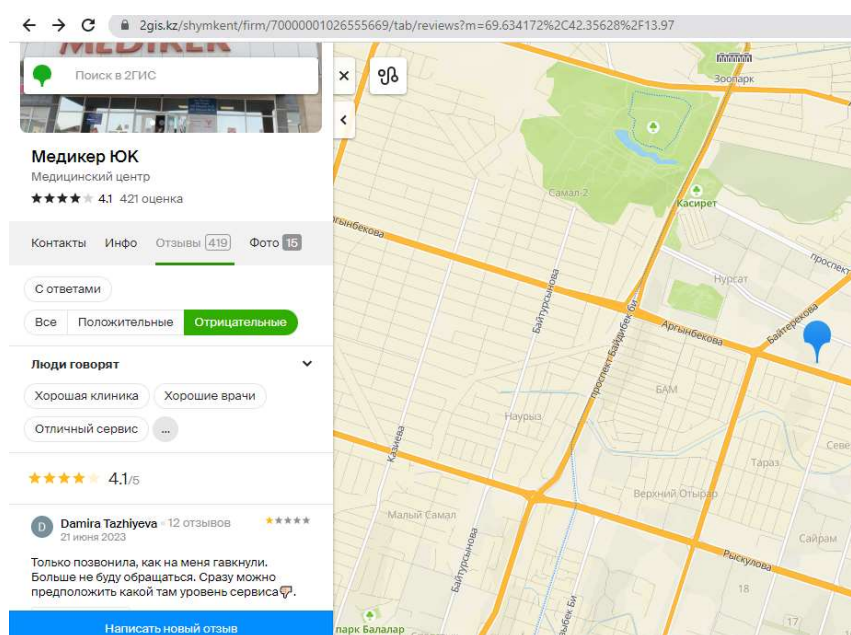


Рисунок 1 – Рейтинг МЦ «Медикер ЮК» в 2ГИС

Примечание: источник гео-система 2ГИС

При сравнении с клиниками-конкурентами было выявлено значительное преимущество МЦ «Медикер ЮК» в количестве оценок и среднем балле оценки (см. таблица 1).

Таблица 1 – Сравнительный анализ оценок МЦ «Медикер» и клиник-конкурентов в 2ГИС

Наименование клиники	Средняя оценка	Общее количество оценок
Центр современной медицины «Медикер ЮК»	4,1	421
Медицинский Центр «Intertech»	3,9	193
Медицинский Центр «Даумед»	2,8	163
Медицинский Центр «Доктора Орынбаева»	3,9	90
Медицинский Центр «Сункар»	2,4	49
Медицинский Центр «Беласу»	2,3	40
Медицинский Центр «Уромед»	3,7	3
ГП №10 г. Шымкент	2	12
ГП №3 г. Шымкент	1,8	75

Примечание: составлено автором.

Как видно из таблицы 1 МЦ «Медикер ЮК» имеет достаточно высокий рейтинг в системе 2ГИС в сравнении со своими конкурентами. Нами был осуществлен анализ негативных отзывов в данной гео-системе. Всего было выявлено 80 негативных записей, которые относились к следующим 10 категориям: 1) Работа регистратуры/колл-центра/ 22 отзыва; 2) Занятость врачей, очередь к специалистам/ 8 отзывов; 3) Коммуникативные навыки/ 6 отзывов; 4) Цены/2 отзыва; 5) Время работы МЦ/2 отзыва; 6) Работа лаборатории/ 1 отзыв; 7) Работа кассы/2 отзыва; 8) Работа врачей/ 19 отзывов; 9) В целом о клинике/ 14 отзывов; 10) Процедуры и политики / 4 отзыва.

Большая часть негативных отзывов относилась к работе регистратуры 27,5%, на втором месте по количеству жалоб – работа врачей (23,75%), на третьем месте – жалобы в целом на клинику без уточнений.

В Яндекс-карте рейтинг МЦ «Медикер ЮК» был выше, чем в 2ГИС (4,3 балла), при этом количество оценок было меньше (всего 117 оценок, см. рис.2). Нами было выявлено 4 негативных отзыва в данной системе, которые относились к ценам в клинике, работе регистратуры, коммуникативных навыков сотрудников и работы туалетов.

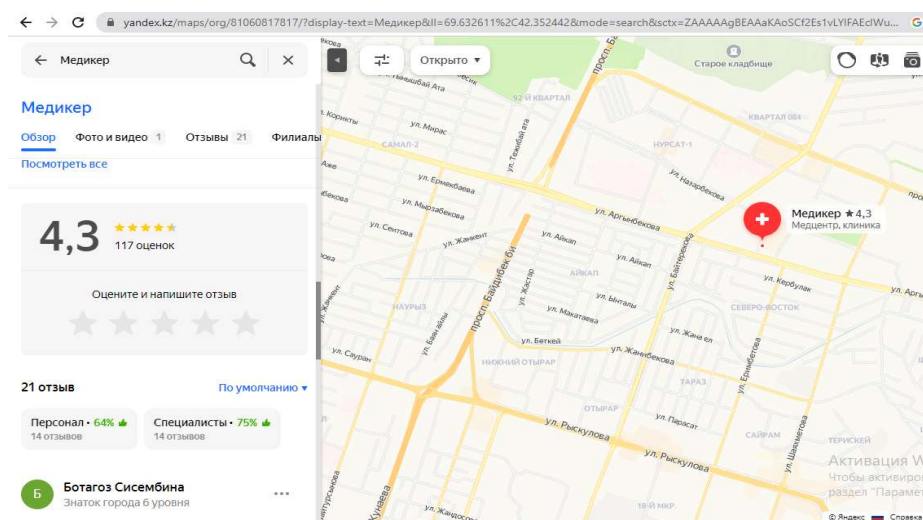


Рисунок 2 – Рейтинг МЦ «Медикер ЮК» в Яндекс-карте.

Примечание: источник yandex.kz/maps/org

На сайте 103.kz МЦ «Медикер ЮК» имел наименьший рейтинг в сравнении с 2ГИС и Яндекс-картой: средний балл компании 3,3 из 5 возможных; всего было выявлено 91 оценки (см. рис. 3).

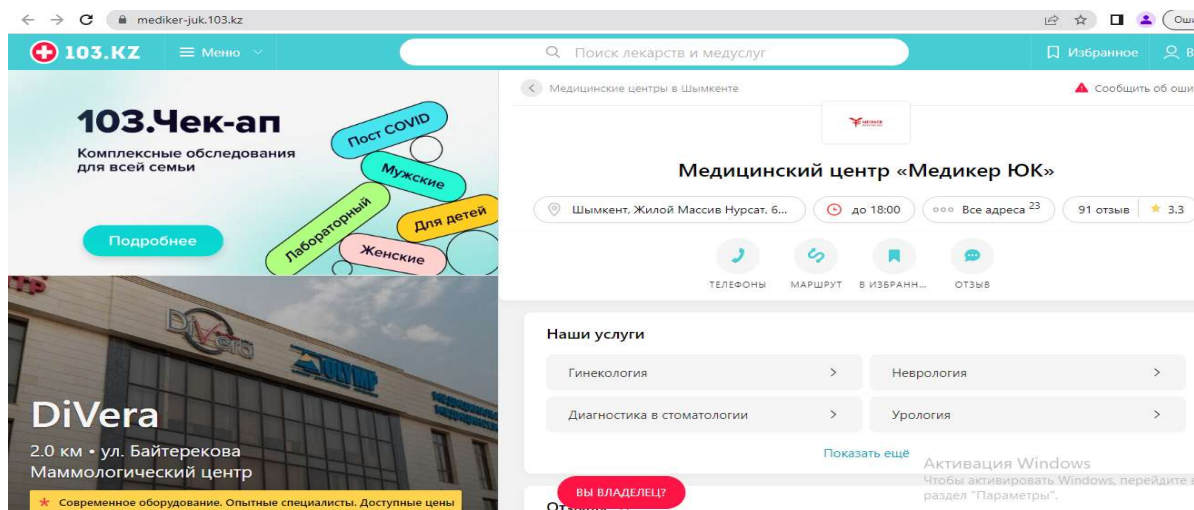


Рисунок 3 – Рейтинг МЦ «Медикер ЮК» на сайте 103.kz

Примечание: источник 103.kz

Анализ негативных отзывов на сайте 103.kz позволил выделить 4 категории жалоб: 1) Работа регистратуры/колл-центра/5 отзывов; 2) Коммуникативные навыки персонала/3 отзыва; 3) Очередь, длительное ожидание/2 отзыва; 4) Работа врачей / 14 отзывов.

Наибольшее количество жалоб относилось к работе врачей (58,3%). Клиентами клиники негативными отзывами были отмечены врачи терапевты, педиатры, кардиолог, врач УЗИ, уролог, гинеколог, маммолог и хирург.

Одним из самых важных моментов при выборе клиники является удовлетворенность пациентов. Удовлетворенность, считается довольно сложной когнитивной и аффективной конструкцией, способной опосредовать влияние восприятия ценности клиентом повторного покупательского поведения и других результатов, таких как лояльность клиентов. Большинство эмпирических исследований рынка клиник указывают на связь между ценностью клиента и удовлетворенностью.

Существует множество исследований, посвященных изучению лояльности клиентов, основанных на модели, согласно которой удовлетворенность является единственным условием лояльности [7].

Укрепление отношений между пациентами и медицинскими организациями ведет к повышению удовлетворенности клиентов, а ценность отношений между ними возрастет, что в конечном итоге повлияет на лояльность.

В этой связи, в рамках настоящего исследования нами было проведено анкетирование пациентов МЦ «Медикер ЮК» в период с 07 ноября 2022 года по 03 декабря 2022 года. Анкетирование проводилось с целью определения индекса лояльности пациентов клинике. Нами была использована методика определения NPS, описанная Куприяновым Р.В., Жарковой Е.В. и Хайруллиным Р.Н. [8] В соответствии с данной методикой пациентам предлагалось ответить на 2 вопроса «Посоветуете ли Вы данную клинику своим знакомым, близким, родным?» и «Почему?». Ответ на первый вопрос предлагалось дать по шкале от 0 до 10, где 0 означало – нет, ни в коем случае, 10 – да, обязательно порекомендую. При ответе на второй вопрос анкеты требовалось уточнить причину, по которой пациент порекомендовал бы или нет данную клинику.

Далее, в соответствии с методикой все опрошенные пациенты распределялись по 3 категориям: критики, нейтралы, промоутеры. К промоутерам относились все респонденты, отметившие цифры 9-10 при ответе на 1 вопрос; к нейтралам – 7-8, все остальные

респонденты относились к критикам. Индекс лояльности пациентов определяется путем вычитания доли критиков из доли промоутеров и может иметь значения от -100 до 100.

Всего в указанный период пациентами клиники было заполнено 738 анкет. Доля промоутеров составила 69,1 %, доля критиков – 10,9% (81 чел.), доля нейтралов - 19,91% (147 чел., см. рисунок 3). Таким образом, индекс лояльности пациентов клиники составил 49,19.



Рисунок 3 - Результаты оценки индекса лояльности пациентов МЦ «Медикер ЮК»

Примечание: составлено автором

Как отмечают практикующие маркетологи, индекс лояльности выше 50 является показателем эффективной работы организации [9].

Анализ ответов «критиков» на второй вопрос анкеты позволил выявить следующие 7 областей улучшения в работе МЦ «Медикер ЮК»: политика и процедуры в МЦ; работа регистратуры; коммуникативные навыки; своевременность приема; жалобы по нескольким категориям; работа лаборатории; работа врачей.

Следует отметить, что данные результатов анкетирования пациентов коррелируют с оценками в 2ГИС, Яндекс-карта и сайте 103.kz.

Таким образом, анализ обратной связи от пациентов МЦ «Медикер ЮК» позволяет сделать вывод о необходимости разработки комплекса мер для улучшения следующих областей:

- 1) Работа регистратуры/колл-центра;
- 2) Занятость врачей, очередь к специалистам;
- 3) Коммуникативные навыки;
- 4) Цены;
- 5) Время работы МЦ;
- 6) Работа лаборатории;
- 7) Работа кассы;
- 8) Работа врачей;
- 9) Процедуры и политики;
- 10) Комфорт пребывания в клинике.

Анализируя уровень декларативности заявленных принципов и ценностей МЦ «Медикер ЮК», нами был сопоставлен опыт взаимодействия пациентов, описанный в отзывах, и стаж работы сотрудников клиники, отмеченных в отзывах, и меры, предпринятые в клинике по указанным случаям.

Так, в стратегии МЦ «Медикер ЮК» заявлен принцип социального партнерства и ответственность, что означает, что клиника позиционирует себя как надежного партнера для государства и общества. Однако, в негативных отзывах отмечаются срывы и переносы приемов пациентов, в том числе без предупреждения. Таким образом, сотрудниками МЦ «Медикер ЮК» на практике нарушается принцип надежности. Негативные отзывы,

касающиеся компетентности врачебного персонала, ставят под сомнение декларируемую ценность МЦ «Медикер ЮК» «профессионализм». В свою очередь, жалобы на коммуникативные навыки персонала, также ставит «профессионализм» в разряд декларируемых, а не реализующихся на практике ценностей клиники.

В ходе анализа нами было выдвинуто предположение: если жалобы пациентов относились к вновь нанятым сотрудникам или сотрудникам, работающим в клинике недавно, то это говорит об уровне адаптации отдельных сотрудников к новой для них корпоративной культуре. В этой связи имеет значение, какую работу с данными сотрудниками провели HR-специалисты. Если жалобы пациентов на профессионализм и коммуникативные навыки относились к давно работающим сотрудникам, то это будет свидетельствовать о пробелах в кадровой политике клиники и декларативном характере заявленных принципов и ценностей.

При анализе документации отдела правового и кадрового обеспечения было выявлено, что в клинике не практикуется анализ обратной связи от пациентов из интернет-источников. Жалобы пациентов, оставленные в книге жалоб, анализируются отделом экспертизы. Также, существует возможность рассмотрения жалоб от пациентов на медицинском совете клиники. Однако, подобных прецедентов на данный момент не было.

Между тем, согласно данным исследований последних процент людей, использующих Интернет для получения медицинской информации, вырос с 20% до 60% [10]. Помимо изучения статей о состоянии здоровья и лечении, пациенты могут получить доступ к информации о своих врачах. В настоящее время независимые сторонние веб-сайты широко представлены в Интернете.

Такие веб-сайты предназначены для предоставления бесплатной базовой информации о врачах, а также позволяют пользователям вводить отзывы о конкретных врачах [11]. Доверие пациентов к этим сторонним сайтам может возникать, несмотря на небольшое количество отзывов и отсутствие достоверности записей пациентов, поскольку предыдущая работа показала, что 75% пациентов, которые часто посещают эти сторонние сайты, находятся под влиянием при выборе врача [12].

Исследователи отмечают, что комментарии с таких сайтов более убедительны для потребителей, чем статистические обобщенные данные гораздо более крупных репрезентативных выборок пациентов [13]. В этой связи, работа с сайтами и гео-информационными системами приобретает большую важность в настоящее время.

Следует отметить, что МЦ «Медикер ЮК» имеет достаточно высокий рейтинг в проанализированных нами информационных источниках. Что с одной стороны позволяет сделать вывод об эффективной маркетинговой стратегии компании; с другой стороны, работа HR-специалистов с отзывами на сторонних сайтах, таких как 2ГИС, Яндекс-карта и 103.kz представляется нам одной из возможностей развития корпоративной культуры персонала клиники.

Результаты анализа обратной связи от сотрудников. Анализ обратной связи от сотрудников МЦ «Медикер ЮК» проводился нами путем проведения анкетирования по методике NPS, аналогичной методике опроса пациентов.

В ходе анализа документации отдела правового и кадрового обеспечения было выявлено, что в МЦ «Медикер ЮК» отсутствует практика анкетирования персонала. Последний опрос сотрудников проводился в рамках аккредитации МЦ «Медикер ЮК». По результатам опроса уровень удовлетворенности медицинского персонала клиники условиями труда составил 87%. Развернутые данные результатов анкетирования в отделе отсутствовали.

Анкета для персонала по методике NPS, включала в себя 2 вопроса: 1) С какой вероятностью Вы будете рекомендовать работу в МЦ «Медикер ЮК» своим друзьям или родственникам? 2) Почему?

Анкетирование проводилось в период с 07 по 11 ноября 2022 года. Всего в анкетировании приняли участие 311 сотрудников, что составило 89,3% от общего числа сотрудников. В соответствии с методикой NPS респонденты были разделены на 3 группы: критики, нейтралы и промоутеры.

По результатам опроса было выявлено, что большая часть респондентов относится к категории промоутеров – 79,42%, к нейтралам относятся 8,68% респондентов, к критикам – 11,89%. При этом наибольшая доля критиков внутри групп респондентов отмечается среди врачей – 18,8% (см. таблица 2), на втором месте АУП – 14,58%, наименьшее количество критиков зафиксировано в группе респондентов СМП и ММП – 11,57%.

Таблица 2 – Результаты опроса персонала МЦ «Медикер ЮК» по методике NPS

№	Категория	Всего	АУП	Врачи	СМП и ММП
1.	Критики	37	7	16	14
2.	Нейтралы	27	3	6	18
3.	Промоутеры	247	38	88	121
ИТОГО		311	48	110	153

Таким образом, индекс NPS персонала МЦ «Медикер ЮК» составил 67,52%. Данный показатель NPS выше, чем у пациентов клиники и в целом считается достаточно высоким для компании.

При анализе отзывов «критиков» нами были выявлены следующие области улучшения кадровой политики клиники: обеспечение прозрачности и транспарентности при премировании и моральном поощрении сотрудников; разработка электронной системы записи к врачу; обучение информационным технологиям персонала; оплата обучения и командировок персонала; снижение документооборота.

Таким образом, проведенное нами исследование показало целесообразность применения таких инструментов оценки корпоративной культуры как анализ обратной связи от клиентов, индекс лояльности пациентов и сотрудников медицинской организации. Данные инструменты, как показал наш опыт, позволяют дополнить представление об уровне развития и эффективности корпоративной культуры. К преимуществам описанных инструментов относится возможность определения слабых и сильных сторон корпоративной культуры организации здравоохранения.

Ограничения в использовании данных методов оценки заключаются в том, что они не позволяют оценить влияние корпоративной культуры на финансовые результаты компании. Между тем, как показало исследование, проведенное китайскими учеными, высокий уровень корпоративной культуры оказывает значительное влияние на способность компании выживать в условиях экономического кризиса [14]. В этой связи, нами рекомендуется использовать дополнительные инструменты оценки корпоративной культуры для формирования полного представления об уровне ее эффективности и развития.

СПИСОК ИСПОЛЬЗОВАННЫХ ИСТОЧНИКОВ

1. Sackmann S.A. Corporate Culture and Performance: Selected Methods for Assessing Corporate Culture // Assessment, Evaluation, Improvement Success through Corporate Culture Recommendations for the Practice. - 2006. - 1. - 6-7.
2. Krafft A., Roth S. Corporate Culture for Economic Performance // Assessment, Evaluation, Improvement Success through Corporate Culture Recommendations for the Practice. – 2006. – 1. - 8-14.
3. Samuel A. B., Rahman M. M., Khairuddin I., Uddin M. J., Rahaman S. A synthesised literature review on organizational culture and corporate performance // Journal of Advanced Research in Social and Behavioral Sciences. – 2017. – 7. - 83-95.
4. Healthcare Quality Improvement and Organizational Culture / Boan D., Funderburk F. – Delmarva Foundation. November 3, 2003. – 19.
5. Davis S.M. Managing Corporate Culture – 1. - Cambridge, MA: Ballinger. 1984.
6. Shani A.B., Lau J.B. Behaviour in Organisations: An Experiential Approach – 8. - New York: McGraw-Hill Irwin. 2005.
7. Fitriani D. A., Pasinringi S.A., Irwandy I., Amqam H. The effect of perceived value toward loyalty through patient satisfaction in Hasanuddin University Hospital // Enfermería Clínica - 30. - 2020. - 408-411. <https://doi.org/10.1016/j.enfcli.2019.11.008> (дата обращения: 26.06.2023).
8. Куприянов Р.В., Жаркова Е.В., Хайруллин Р.Н. Использование методики NPs для оценки лояльности пациентов (опыт МКДЦ) // Менеджер здравоохранения. 2018. №8. URL: <https://cyberleninka.ru/article/n/ispolzovanie-metodiki-nps-dlya-otsenki-loyalnosti-patsientov-opyt-mkdts> (дата обращения: 26.06.2023).
9. Черпунова Д. Мы измерили индекс лояльности клиентов NPS. Что делать с этой цифрой? // Skillbox Маркетинг. 2021. URL: <https://skillbox.ru/media/marketing/my-izmerili-indeks-loyalnosti-klientov-nps/> (дата обращения: 20.06.2023).
10. Gao G.G., McCullough J.S., Agarwal R., Jha A.K. A changing landscape of physician quality reporting: analysis of patients' online ratings of their physicians over a 5-year period. // Med Internet Res. – 14. - 2012. - 38.
11. Laugesen J., Hassanein K., Yuan Y. The impact of internet health information on patient compliance: a research model and an empirical study // Med Internet Res. – 17. – 2015. - 143.
12. Black E.W., Thompson L.A., Saliba H., Dawson K., Black N.M. An analysis of healthcare providers' online rating // Inform Prim Care – 17. - 2009. – 249-253.
13. Kanouse D.E., Schlesinger M., Shaller D., Martino S.C., Rybowski L. How patient comments affect consumers' use of physician performance measures // Med Care. – 54. – 2016. - 24–31.
14. Cheng S., Hua X., Wang Q. Corporate culture and firm resilience in China: Evidence from the Sino-US trade war // Pacific-Basin Finance Journal. – 79. - 2023, URL: <https://www.sciencedirect.com/science/article/pii/S0927538X23001051#bbb0215> (дата обращения: 21.06.2023).

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EXPERIENCE IN ENHANCING THE COMPETITIVENESS OF BANKS IN LEADING FOREIGN COUNTRIES

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Commercial banks are one of the main links of the market economy, on the development of which the welfare of the country depends [1].

In the development of the modern banking environment, the fundamental initiative is to increase the competitiveness of commercial banks, identifying as the main factors [2]:

- the difference of financial systems depends on the level of income per capita in countries, for example, stock exchanges and banks are more consolidated in countries where the level of income is high enough; the level of economic development affects inflation, corruption, restrictions in the banking sector, etc.;

- the activity of stock exchanges and the market depends on the economic development of the country, and the level of economic development of the country.

Due to the high creditworthiness rating of the sovereign government at the level of AA+ and credit climate rating at the level of AAA in foreign and national currencies, the USA has one of the most developed financial systems in the world (in the USA there are about 5.2 thousand banking structures - credit organizations, banks, including those with foreign capital [3]. Competitive factors of the US banking system are defined as: low share of short-term liabilities in the structure of public debt (the ratio of short-term debt to GDP was 8.9%, to budget revenues - 28% and moderately low value of interest rates on debt (about 2% on government bonds [4].

These factors helped US commercial banks to consolidate their leading positions in the market of banking services and create a sharp competition between them. Concentration and centralization of banking capital led to a high level of monopolization. Banks with assets of more than \$50 million account for up to 75% of all assets (accounting for more than 50% of the country's GDP), while the share of these banks is less than 5% of the total number of all commercial banks in the United States [5].

The existence of a large number of commercial organizations in the banking environment is primarily due to economic feasibility, the need of the population (high demand for financial services) and the peculiarities of the legislative system. Commercial banks with assets up to \$100 million account for up to 75 per cent of all commercial banks. Despite the fact that in a number of states there is a legal regulation on registration of new banks and prohibition for banks from other states to open their branches, commercial banks expand their influence through the creation of correspondent relations (for example, holding companies) [6].

Given the large number of commercial organizations in the US banking environment, banks are now competing with each other by expanding their list of services on better terms for consumers and digitizing them.

Along with the USA, China is considered to be the most profitable banking system in the world practice, credit organizations of which occupy leading positions both in terms of capital/assets (rating formed by S&P Global Intelligence, 2017) and profit growth [1]. The Chinese banking market remains highly concentrated, with a Herfindahl-Hirschman index above 1,000, but with a characteristic gradual decline in the index [7].

The competitive position of the Chinese banking system according to the World Economic Forum's Global Competitiveness Index - 17th place in the 2021 ranking, has allowed it to strengthen its position and become more competitive every year (2017 - 30th place) [8].

According to Guo Chenchen's research [8], Chinese market banks should utilize competitive advantages: prestige, brand reliability, high level of financial technology, providing services at a high technological level, etc. [7]. In addition, the banking environment is difficult for foreign banks to expand their operations, which is mostly due to the increased regulatory influence and foreign exchange law liberalization processes [7]. Initiatives that contribute to the competitiveness of China's banking system include the absence of isolation of currency policy from monetary policy [9]; the introduction of a sustainable deposit insurance system (guaranteed to citizens' deposits and corporate deposits, not assumed for foreign banks) [10]; strengthening of the national currency [11]; a high level of financial technology [12], and others. The following factors have been identified as constraints to the development of banks in China: high level of corporate and private sector lending, decreasing influence of shadow banking and low return on assets of the banking sector [12].

The strongest banking systems include the Canadian experience. Commercial banks in Canada have an extended list of services and are engaged in all types of lending, investment and insurance banking products. As noted by Nikulina I.E. et al. [5], all banks are capitalized, but have a limited level of costs and an average level of margin [2]. The peculiarity of the Canadian banking system is defined as: punishment for exceeding the borrowed financing, mandatory 20% prepayment of the loaned property, and other limits of mortgage lending.

The rapid development of Singapore's economy, allowing it to become the "financial capital of Southeast Asia", was facilitated by the authorities' policy of attracting investments from commercial banks [13], [14].

In a report by Hawksford Investment Trust [15], the competitiveness of Singapore's banking industry is attributed to factors such as liberalization of the domestic banking market; mergers and acquisitions of local banks; expansion of foreign banks; encouraging the development of innovative banking products and pricing models; provision of sophisticated banking services (corporate and investment banking); the government's guarantee of a low flat tax rate and a wide range of services to the

Singapore's banking system in its infancy has undergone two phases of liberalization to strengthen it and improve its reputation: in the first phase through the issuance of a new category of full banking licenses (QFBs), increasing the number of limited access banks and giving offshore banks greater flexibility in wholesale banking; and the abolition of the 40% foreign shareholding limit in local banks; in the second phase, the reclassification of a number of commercial banks as wholesale banks to improve competitiveness in retail banking; the licensed Generous tax incentives have been identified as a characteristic feature of the competitiveness of Singapore's banking sector: a single-tier tax system (only the income of specific commercial banks is taxed); exemption from taxation of dividends; a statutory income tax rate (18.4 per cent); and a non-taxable income tax on the income of non-resident banks.

As noted by Mosyagina M.S., the fundamental initiative in improving the competitiveness of the banking sector in Singapore was determined by the merger of local commercial banks into three banking groups - DBS Group, OCBC Group and UOB Group, which contributed to the expansion of the bank's capabilities, its areas of activity [14], [17].

The banking system of the European Union, due to the decline in economic growth rates, is characterized by the transition to the policy of maintaining stability and retaining the clientele, as well as reducing its own costs to maintain the balance sheet.

The main areas of activity of European banks to improve their competitiveness are [17], [18]: risk management - EU countries are focused on creating a proactive risk management system;

investment in information technology. EU banks spend up to 40% of the budget on security, but the lack of proper profits in banks does not give them the opportunity to engage in design and development, and as a consequence keeps banks at the same level; capital management - project approach to the management of banking structures today increase productivity by more than 13%; acquisition of new assets and other.

Also, an important factor is co-operation with other banks, offering more flexible and favorable conditions to consumers of services. This approach contributes to solving the financial crisis, deterioration of the bank's financial situation, etc. At the same time, at present, most European banks are oriented towards merger of banks and insurance companies, especially in Germany and others. Karaulov E.D. notes that the largest banks in the world are universal banks [19].

The competitiveness of German commercial banks is based on the ability to provide a variety of operations: from universal to highly specialized [20]. Despite the fact that Germany has the highest % of private depositors' income on deposit accounts - 25% (in the EU countries - 18%), this has not become an obstacle, and allowed German banks to occupy $\frac{1}{4}$ of the entire European market, and cover up to 20% of the assets of banks in Europe [19]. According to Moody's report, Germany is overburdened with banking business and state-owned banks are overburdened with loans [2].

The analysis of the world practice of the banking environment shows the great role of commercial banks in increasing the money supply of the country, and as a consequence, the efficiency of their activities depends on the degree of their development. Despite the uniformity of services, commercial banks are different due to a number of indicators, and as a consequence, they realize their tasks taking into account the peculiarities (regional, national, local) [21].

Table 1 presents a comparison of foreign experience in the development of service to commercial banks in the context of criteria (their targeting). The analysis of foreign banking service has shown that commercial banks are often private structures, but in a number of countries - nationalized. This approach depends on the system of regulation of commercial banking activities in the country - from strict centralization to decentralization of the process, which affects both the structure of the banking service (the presence of bank branches both in the country and abroad) and the functionality - financial intermediation (credit institutions), savings, mortgage, cooperative, investment and offshore activities.

Table 1 - Comparison of foreign experience of commercial banks with regard to competitiveness factors

No	Competitiveness policy criterion	Country experiences
1	Property	Private banks (joint-stock, non-joint-stock) - USA State-owned (nationalized) - France, Italy, India
2	Regulation	Strict regulation of commercial banking activities - USA Deregulation of the banking sector - EU countries
3	Bank branches	Wide network of bank branches in a small number of commercial banks - EU countries, post-Soviet countries Commercial bank without bank branches - United States (except California)
4	Foreign operations	Active foreign banking relations and a wide network of branches abroad - UK, Netherlands, Germany, China, etc.
5	Financial intermediaries	Credit institutions (savings banks, mortgage banks, cooperative banks, investment banks, development banks and various types of specialized banks) within banks - EU countries
6	Savings banks	In EU countries, savings banks are organized into associations that act as a kind of central bank. These banks, by attracting small savings and co-investing them, contribute to the economic development of Western European countries
7	Mortgage banks	Mortgage policy in most countries is oriented not only to address the economic, social and political needs of banking consumers, but, on the other hand, leads to higher land prices and higher construction costs
8	Co-operative banks	These banks are common in Finland, Germany, France, Italy, India and France. Given that all co-operative banks are small, regional associations are usually formed that function as clearing houses and lend to their members Credit unions are being formed in the United States, but their role in the national credit system is relatively small
9	Investment banks	Investment banking activities are most developed in the Far East, Europe and North America.
10	Offshore banks	USA, UK, etc. European countries are characterized by successful experience in implementing offshore projects. However, one of the problems is the lack of control over their operations.
Note: compiled by the author on the basis of the source [21].		

Thus, the conducted analysis allowed us to draw the following conclusions.

Increasing the competitiveness of commercial banks is influenced by such factors as the development of financial systems (affects the level of income per capita) and the level of economic development (affects inflation, corruption, restrictions in the banking sector, stock exchange and market activity, etc.).

The comparative analysis of the banking structure of foreign countries determines the main factors contributing to the growth of commercial banks' competitiveness: low share of short-term liabilities in the structure of public debt and moderately low value of interest rates on debt (USA, Canada, Singapore); absence of isolation of currency policy from monetary policy and strengthening of the national currency (China); expansion of the list of services on more favourable terms for consumers and their digitalization (USA, China, EU, Singapore); introduction of a sustainable system of banking services (USA, China, EU, Singapore).

In general, each country has its own peculiarities due to historical peculiarities, cultural specifics, social situation, level of economic development, legislative framework, etc., but the principles of their functioning are similar.

In the world, practice of the banking environment a great role is given to commercial banks, which are designed to contribute to the increase of the country's money supply, and as a consequence, the efficiency of the entire financial industry depends on the degree of their development.

References:

1. Financial analytics: problems and solutions. №21 (2016) 13-28
2. Dolgoroborodova D.A. Role of commercial banks in the economy. Reference: <https://school-science.ru/6/14/37346>
3. Nikulina I.E., Kontos E.G. Comparative analysis of banking systems of different countries. Zh.: Fundamental research. - 2017. - № 2 - C. 185-193
4. Link: <https://www.profbanking.com/did-you-know-that/2197-bank-usa?ysclid=lasceh171j983502937>
5. Nikulina O.V., Zadiraka V.V. Analyzing the competitiveness of commercial banks in Russia and the USA
6. Rudy K.V. Financial and credit systems of foreign countries.- M.: "New Knowledge", 2003. -301 c
7. Foreign experience in the development of commercial banks. <https://www.stud24.ru/economics/zarubezhnyj-opyt-razvitiya-kommercheskih-bankov/124267-365242-page4.html>
8. Guo Chenchen. Commercial bank competition in the PRC banking market. J.: Innovation and investment, 2019. №2. C. 105-109
9. Link:<https://gtmarket.ru/ratings/imd-world-competitiveness-ranking?ysclid=lasm29lkqh412644761>
10. Kuznetsova V.V. Financial stability policy: international experience: monograph. - Moscow: KURS: INFA-M, 2018 - 219 pp.
11. Zenkina E.V. International monetary and financial relations in the post-industrial world: a monograph. - M.: INFO-M, 2018. - 169c.
12. Liu Yining. The formation of China's banking system and its current status. J.: Ideas and Ideals, 2019. Vol. 11 No. 2, part 2. C. 395-410
13. Vdovin A.N. Banking sector of China: digitalization as a catalyst for development and a response to challenges // Economic Relations. - 2022. - Vol. 12. - № 4
14. Mosyagina M.S. Foreign experience of increasing the competitiveness of commercial banks and the possibility of its application in Russian practice. Reference: <http://synergy-journal.ru/archive/article2982?ysclid=lar26fzky2706495175>,
15. Drivers of the New Economy in APEC. Innovation and Organization Practices. APEC Economic Committee. Singapore, 2017.
16. The Banking Industry and the Major Players in Singapore // HawksfordGroup. - URL.: <https://www.guidemesingapore.com/business-guides/managing-business/banking-funding-and-finance/banking-industry-and-major-banks-in-Singapore>
17. APEC Economic Outlook 2017. APEC Economic Committee. Singapore, 2017
18. https://spravochnick.ru/bankovskoe_delo/evropeyskiy_rynok_bankovskih_uslug/?ysclid=lar52shcrb922390947#perspektivy-razvitiya-rynka-bankovskih-uslug-evropy;
19. Bazazyan S.G. Some aspects of the emergence and formation of the European banking system. J.: Statistics and Economics, 2011 - № 2 - pp 23-27
20. Karaulov E.D. Modern trends in the development of the banking system of the European Union. <https://elib.bsu.by/bitstream/123456789/201673/1/177->

181.pdf?ysclid=lar52hdq6k194536595

21. Noskov V.A., Vleznikova V.I. International banking business [Text]: textbook / V.A. Noskov, V.I. Vleznikova. - Samara: Samar. gos. ekon.un-ta, 2019. - 144 c.
https://lms2.sseu.ru/pluginfile.php/313170/mod_resource/content/1/%D0%9D%D0%BE%D1%81%D0%BA%D0%BE%D0%B2%2C%20%D0%92%D0%BB%D0%B5%D0%B7%D0%BA%D0%BE%D0%B2%D0%B0_06.05.pdf

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SPREADING OF PRIMITIVE INTESTINAL PARASITES (*EIMERIA*, *ISOSPOORA*) IN PIGS

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Annotation. The article concerns the infection of *Eimeria* and *Isosporas* in pig-breeding farms located in the Khachmaz district. Examination of the collected faeces samples, infection with eimeria was detected by season. Thus, in the spring period, 41.7% of cases were detected at the age of 2-6 month's, 33.3% at the age of 7-12 month's, 15.4% in mature animals; in the summer period at the age of 2-6 month's - 9.1% of cases, at the age of 7-12 month's-7.7% of cases, while no infection was detected in mature animals. As a result of the studies, the infection rate in the autumn period was 33.3% at the age of 2-6 month's, 21.4% cases at the age of 7-12 month's, 12.5% cases in mature animals; in winter, 15.4% at the age of 2-6 month's, 8.3% cases at the age of 7-12 month's and 7.1% in mature animals. Summarizing the results obtained, during the conducted scatological examinations, 30.0% of infection with eimeria was detected in spring, 5.3% in summer, 21.4% in autumn and 10.3% in winter.

When analyzing the results of the conducted surveys, it becomes clear that infection with eimeria on pig farms occurs in all seasons of the year. However, it should be noted that the greatest infection with eimeria was studied in spring and autumn (mainly in spring). It also depends on the conditions (temperature, humidity, oxygen) necessary for the development of eimeria oocysts in the external environment.

And with *Isospora suis*, 33.3% of cases of infection at the age of 2-6 months, 25.0% at the age of 7-12 months, 20.0% in mature animals and 26.0% in the whole farm were studied.

Key words: pig-breeding farm, eimeriosis, isosporosis, scatological examination, infection dynamics

Introduction

One of the most common parasitic diseases of pigs is eimeriosis. The disease primarily negatively affects the development of piglets. In them, infection with intracellular parasites – eimeria occurs in a hemispherical and acute form. The carriers of diseases are mature animals, as well as flies and other insects, which are also carriers of parasites. The disease affects piglets at the age of 10-14 days to 2-3 months, and at this time weakness, developmental delay, diarrhea, and bloody diarrhea occur. Due to damage to the intestinal wall against the background of the development of eimeriosis, animals can also become infected with infections. Infection of pigs (mainly piglets) eimeria occurs through ingestion of spore-bearing oocysts of a parasite that has entered the environment with the faeces of the host animal, with grass, feed, water and other means (4).

Scientists from both, foreign countries and our republic have conducted a number of studies on the spreading, treatment and prevention of parasitic diseases, including eimeriosis, and this work is still ongoing (1,2,6,7).

One of the diseases caused by primitive intestinal parasites in pigs is isosporosis. The causative agent of the disease is a primitive parasite *Isospora suis*. The pathogen belongs to the

class of *Sporozoa*, the family eimeriidae, the genus *Isospora*. It should be noted that *Isosporas* are widespread in nature. Currently, about 200 species of *Isosporas* are known, in appearance they resemble eimeria, their oocysts are colorless, have a rounded or oval shape. The outer coating is smooth and double-layered. *Isospora suis* is a very pathogenic species. The disease affects piglets younger than 2 months, which are characterized by a lesion of the small intestine. Piglets lag behind in growth and development, the disease is accompanied by diarrhea, weight loss, death of young animals (3,9,10).

Therefore, we set a goal to study the age and seasonal dependence of eimeriosis on primary intestinal parasites in pig-breeding farms, as well as the dynamics of the transmission of isosporosis by age groups.

Materials and methods

The research work was carried out in the laboratory of the department of Parasitology of the Veterinary Scientific Research Institute on the basis of pathological materials (fecal samples) collected in 2022-2023 in the individual pig-breeding farm of Khachmaz district in the Guba-Khachmaz economic district to study the dynamics of infection of animals of various ages with eimeriosis and isosporosis.

In order to detect infection with *Eimeria* and *Isospora* species in the collected samples, the Darling-Fulleborn method was used. During the examinations, fecal samples of animals aged 2-6 months, 7-12 months and older were used. Each fecal sample taken from a piglet or pig was examined separately, the detection of oocysts was assessed as infection, and the intensity of invasion was expressed as a percentage (5,8).

The results obtained and their discussion

A scatological study of fecal samples collected from pig-breeding farms located in the Khachmaz district revealed the dynamics of infection of animals with eimeria by age and seasons (Fig.1).

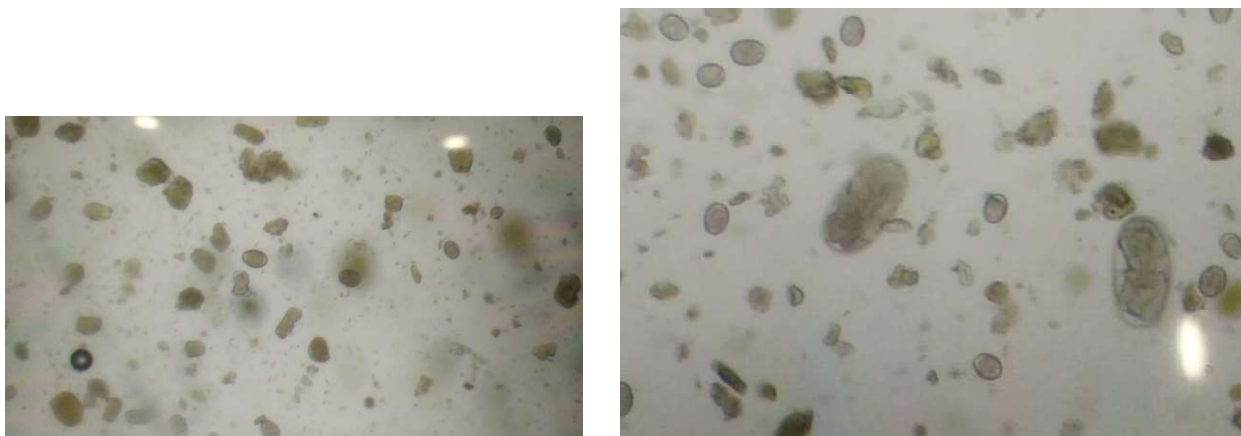


Figure 1. Pathogens of pig eimeriosis

During the examinations, infection with eimeria was detected in the spring period at the age of 2-6 months 41.7%, at the age of 7-12 months 33.3%, in mature animals 15.4%; in the summer period at the age of 2-6 months 9.1%, at the age of 7-12 months 7.7%, in mature animals infection was not detected; in the autumn period at the age of 2-6 months 33.3%, at the age of 7-12 months, 21.4%, in mature animals 12.5%; in winter, the infection rate at the age of 2-6 months was studied at 15.4%, 8.3% cases at the age of 7-12 months, 7.1% cases in mature animals (Table 1).

Thus, from the results of the study, we conclude that with the age of animals, a decrease in the prevalence of invasion is recorded. Studies conducted in the Khachmaz district have shown

that young animals (mainly piglets) carry eimeriosis more severely than mature animals, but mature animals carry the disease in a chronic form and become carriers of the disease. It also depends on whether the mature animals have a strong immune status.

Table 1

Infection of pigs with eimeria depending on age and time of year (in %)

Age	Examined	Infection with eimeria	
		Infected	İE (%)
Spring			
2-6 months	12	5	41,7
7-12 months	15	5	33,3
Mature animals	13	2	15,4
Total	40	12	30,0
Summer			
2-6 months	11	1	9,1
7-12 months	13	1	7,7
Mature animals	14	0	-
Total	38	2	5,3
Autumn			
2-6 months	12	4	33,3
7-12 months	14	3	21,4
Mature animals	16	2	12,5
Total	42	9	21,4
Winter			
2-6 months	13	2	15,4
7-12 months	12	1	8,3
Mature animals	14	1	7,1
Total	39	4	10,3

Summarizing the results obtained: during scatological examinations conducted with eimeria, infection of 30.0% in spring, 5.3% in summer, 21.4% in autumn and 10.3% in winter was detected (Diagram 1).

As a result of the conducted surveys, it was found that the infection with eimeria is weak in the summer, which depends on environmental factors. In summer, the air temperature is high and the humidity is low. This also leads to the destruction of most oocysts in the summer. Since the air temperature and humidity are within the normal range, which has a positive effect on the development (sporulation) of oocysts in spring and autumn, it has a positive effect on their development (sporulation) in the external environment. In winter, the ambient temperature is low, the development of eimeria oocysts weakens, which negatively affects infection. It follows that in the winter months the infection is weaker than in the spring and autumn months.

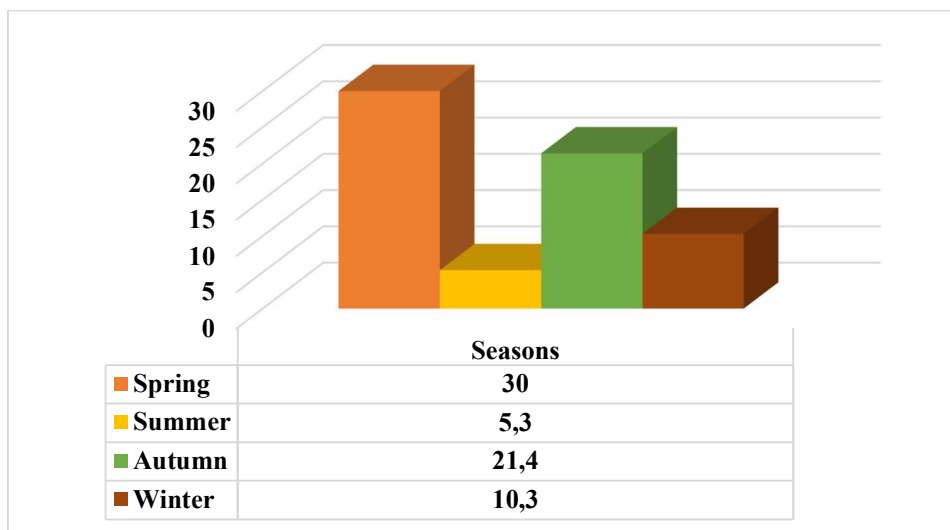


Diagram 1. Dynamics of eimeria infection by season

During the studies the infection of pigs with *Isospora suis* was also studied by age groups. In the course of conducted scatological studies, infection with *Isospora suis* at the age of 2-6 months was detected by 33.3%, at the age of 7-12 months by 25.0%, in mature animals by 20.0% (Fig.2). In total, on the farm there were investigated 26.0% of infections (Table 2).

Table 2

Percentage of *Isospora suis* infection in pigs (in %)

Age	Examined	Infection with <i>Isospora suis</i>	
		Infected	IE (%)
2-6-months	9	3	33,3
7-12-months	8	2	25,0
Mature animals	10	2	20,0
In total	27	7	26,0

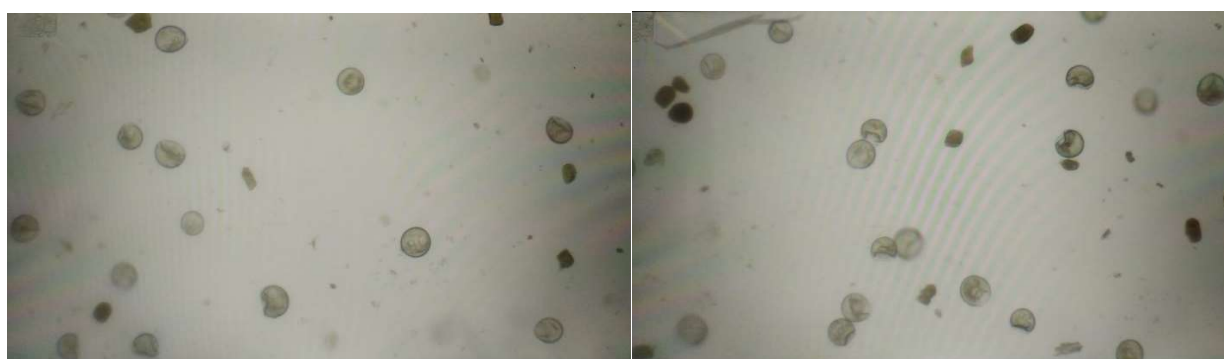


Figure 2. *Isospora suis* in pigs

When analyzing the results of the conducted surveys, it becomes clear that infection with eimeria on pig-breeding farms occurs in all seasons of the year. However, it should be noted that the greatest infection with eimeria was studied in spring and autumn (mainly in spring). It also depends

on the conditions (temperature, humidity, oxygen) necessary for the development of eimeria oocysts in the external environment.

The study of the causative agents of eimeriosis in pigs is necessary depending on different climatic conditions, seasons, age of the studied animals, conditions of their breeding. Consequently, in pigs, as in other farm animals, eimeria parasitize, negatively affecting their development, while in piglets development become weaker, which leads to loss of fertility.

Infection of pigs with *Isospora suis* during the examination by age groups, was found that piglets are infected with a higher percentage than mature animals. And the main reason is considered to be infection of the immune status of mature animals.

Result:

1. Infection with eimeria in spring, 41.7% at the age of 2-6 months, 33.3% at the age of 7-12 months, 15.4% in mature animals; in summer, 9.1% at the age of 2-6 months, 7.7% at the age of 12-70 months, no infection was detected in mature animals; in autumn, 33.3% at the age of 2-6 months, 21.4% at the age of 7-12 months, 12.5%; in winter, the infection rate was studied at 15.4% at the age of 2-6 months, 8.3% at the age of 7-12 months and 7.1% in mature animals.
2. The infection with *Isospora suis* was 33.3% at the age of 2-6 months, 25.0% at the age of 7-12 months, 20.0% in mature animals and on the whole for farm in all 26.0% of infection was investigated.

REFERENCES

1. Mammadova, M.A. Dynamics of infection of domestic pigs with eimeria depending on age and season/M.A. Mammadova, E.I. Akhmedov, F.Q.Alieva [et al.] / Proceedings of the Azerbaijan Society of Zoologists, – Baku: Elm. – 2010. p. 2, – pp. 65-69.
2. Anpilogova N. V. Infection of pigs with coccidiosis depending on the season of the year in Tajikistan//News of Academy of Sciences of Tajikistan SSR. - 1979. Issue 3. - pp. 113 - 115.
3. Vershinin I.I. Sarcosporidia and isospores of animals and humans. Toxoplasms. - L.: "Science", 1979. - pp. 24-37.
4. Kolabsky N. A. Coccidiosis of farm animals / N. A. Kolabsky, P. I. Pashkin. - L.: Kolos, 1974. – p. 159 p.
5. Krylov, M.V. Determinant of parasitic protozoa / M.V.Krylov. – St. Petersburg: Nauka, - 1996. – p. 602
6. Methodological recommendations for the control of eimeriosis and isosporosis of animals. - M.: RAAS, 1994. – p. 30
7. Safiullin R.T. Eimeriosis and balantidiosis in pig-breeding farms of the Perm region/R. T. Safiullin, S. A. Semko // Bulletin of Veterinary Medicine. - 2002. No. 24. - pp. 63-64.
8. Safiullin, R.T. Organic fertilizers. Methods of parasitological analysis. Methods for determining oocysts and protozoan cysts/R.T. Safiullin – Moscow: Standartinform, - 2020. – p. 14 (pp.6-7)
9. Safiullin R.T., Stolbov E.V. Isosporosis and eimeriosis of pigs//Veterinary medicine. - 2020. No. 4. - pp. 30-36
10. Yatusovich A.I. Poorly studied and new parasitic diseases of animals // VITEBSK, 2000, pp. 15-17

INFLUENCE OF PLANT DENSITY ON ECONOMIC INDICATORS OF GROWING SOYBEAN VARIETIES OF DIFFERENT MATURITY GROUPS IN THE NORTHERN STEPPE OF NIKOLAEV REGION

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Abstracts

The article is devoted to the study of the peculiarities of productivity formation of soybean varieties of different maturity groups (Annushka - ultra early; Mavka - early ripening; Smuglyanka - mid-ripening), when grown in the Northern Steppe of Mykolaiv region at different plant density (400, 500, 600 and 700 thousand plants per hectare of crop).

According to the results of our research, on average for 2020-2021, it was found that the cost of gross production of the studied soybean varieties ranged from 39195.0 to 57525.0 UAH/ha and had an average value of 47320.0 UAH/ha. The maximum value of gross production in the experiment (57525.0 UAH/ha) was observed on the crops of the Smuglyanka variety, and it was found that it was obtained when the plant density was 500 thousand plants/ha. A similar situation was observed in terms of conditional net profit (35960.0 UAH/ha) and profitability (166.8%). The lowest cost per 1 c of product (731.02 UAH/ton) was observed in the same variant.

Keywords: *soybeans, varieties, plant density, gross production value, gross costs, profit, profitability.*

The integrated use of optimal elements of technology should ensure not only high productivity of soybean crops, but also a reduction in the cost of growing it. Quite often, the use of unjustified technological operations leads to expensive products and, as a result, losses [1-16].

Studying the productivity of crop plants depending on the density of crops using soybeans of different varietal composition became our task for conducting scientific research in the Northern Steppe of Mykolaiv region [17].

The agrotechnology of crop cultivation in the experiment was generally accepted for the

Northern Steppe zone of Ukraine, with the exception of the agrotechnical methods that were studied. Field and laboratory experiments were carried out during 2020-2021 according to the generally accepted method of field experimentation in crop production [17- 20], accompanied by observations, definitions, records and analyzes.

Soybeans were sown after the stubble predecessor, winter wheat. After harvesting the predecessor, in the 2nd decade of July, stubble was peeled, and in the 2nd decade of September, plowing was done to a depth of 22-24 cm. In the spring, when the soil was physically ripe, the moisture was sealed off. Before sowing soybeans, two cultivations could be carried out, as the weeds grew back. Pre-sowing cultivation of the experimental plots was carried out in 1-2 decades of May: cultivation to a depth of 10-12 cm, with harrowing to a depth of 6-8 cm [17].

The soybean varieties were sown in the first and second decade of May according to the years of research. Before sowing, the seeds were treated with rhizotorphin. The seeding rate for each variant was applied in accordance with the experimental design [17].

The experimental design included the following variants: Factor A (soybean varieties): Annushka (ultra-early), Mavka (early ripening), Smuglyanka (mid-ripening); Factor B (plant density, thousand units/ha): 400, 500, 600 i 700 [17].

Experimental studies were conducted according to the method of field experiment and the method of the State Variety Testing of Crops [17, 20, 21].

Given that the main elements of the cultivation technology were standard for all variants of the experiment, we calculated only those costs that were variable, namely the cost of seeds. All indicators of economic efficiency were calculated in 2023 prices, as economic components change quite dynamically, and the task of modern competitive production is always to obtain profitable products.

The basic costs of soybean cultivation technology, including the cost of seeds, were based on prices as of 05.2023 according to the materials posted on the website of the Department of Agricultural Development (apk.gov.ua) and based on the analysis of technological maps of crop cultivation. The cost of seeds was adjusted according to their seeding rate according to the experimental design.

The cost of the harvest was also calculated in 2023 prices, taking into account the weighted average market price for soybean grain, which amounted to 19500 UAH/t.

In the process of growing soybean varieties, it is important to develop the most efficient resource-saving technology with the highest level of profitability. The results of determining the economic efficiency of growing soybean variety Annushka depending on the planting density are shown in Table 1.

Table 1

Economic efficiency of growing soybean variety Annushka depending on plant density (average for 2020-2021)

Indicators	Plant density, thousand units/ha			
	400	500	600	700
Yield, t/ha	2,01	2,14	2,21	2,18
Cost of 1 ton of seeds, UAH	19500,00	19500,00	19500,00	19500,00
Product cost, UAH	39195,00	41730,00	43095,00	42510,00
Production costs, UAH/ha	17912,00	18986,00	19323,00	19183,00
Cost of production per quintal, UAH	891,14	887,20	874,34	879,95
Pro forma net profit, UAH/ha	21283,00	22744,00	23772,00	23327,00
Profitability level, %	118,8	119,8	123,0	121,6

Based on the calculations of the economic efficiency of soybean cultivation, it was found that the maximum profit for the Annushka variety was obtained at a planting density of 600 thousand seeds per hectare - 23.772 thousand UAH, while the lowest cost of production was observed - 874.34 UAH/ton, with a profitability level of 123.0%. With an increase in plant density, as well as with its decrease from the above, the economic indicators for this variety decreased, however, they were less significant when the plant density increased by 100 thousand units/ha than when it decreased to 500 thousand units/ha. This suggests that the variety has reduced plant branching and better tolerates plant thickening.

The results of research on the soybean variety Mavka are shown in Table 2. Based on the data obtained, it can be stated that the maximum indicators of economic efficiency were obtained for sowing with the formation of plant density in crops of 500 thousand units/ha. The cost of gross production amounted to 49530.00 UAH per hectare, conditional net profit - 29018.00 UAH/ha, cost price - 807.56 UAH/ha, and profitability level - 141.5%. An increase in plant density, as well as its decrease, resulted in lower yields and economic performance. Moreover, unlike the previous variety, plants of the Mavka variety reduced their productivity with increasing crop thickening compared to the minimum studied density.

Table 2

Economic efficiency of growing soybean variety Mavka depending on plant density (average for 2020-2021)

Indicators	Plant density, thousand units/ha			
	400	500	600	700
Yield, t/ha	2,43	2,54	2,36	2,29
Cost of 1 ton of seeds, UAH	19500,00	19500,00	19500,00	19500,00
Product cost, UAH	47385,00	49530,00	46020,00	44655,00
Production costs, UAH/ha	19735,00	20512,00	19800,00	19283,00
Cost of production per quintal, UAH	812,14	807,56	838,98	842,05
Pro forma net profit, UAH/ha	27650,00	29018,00	26220,00	25372,00
Profitability level, %	140,1	141,5	132,4	131,6

The best soybean plant productivity indicators in the experiment were observed in the Smuglyanka variety, and it also had the best economic results (Table 3). Thus, this variety at a planting density of 500 thousand plants per hectare produced products worth 57525.00 UAH with a conditional net profit of 35960.00 UAH/ha. At the same time, the products had the lowest cost in the experiment of 731.02 UAH/ton and the highest profitability (166.8%). For this variety, there is a pattern in relation to the density of crops similar to the Mavka variety.

**Economic efficiency of growing soybean variety Smuglyanka depending on plant density
(average for 2020-2021)**

Indicators	Plant density, thousand units/ha			
	400	500	600	700
Yield, t/ha	2,84	2,95	2,71	2,46
Cost of 1 ton of seeds, UAH	19500,00	19500,00	19500,00	19500,00
Product cost, UAH	55380,00	57525,00	52845,00	47970,00
Production costs, UAH/ha	21164,00	21565,00	20972,00	19925,00
Cost of production per quintal, UAH	745,21	731,02	773,87	809,96
Pro forma net profit, UAH/ha	34216,00	35960,00	31873,00	28045,00
Profitability level, %	161,7	166,8	152,0	140,8

Thus, the most economically feasible under the conditions of cultivation on the farm is to sow soybeans of the medium-ripening variety Smuglyanka at a plant density of 500 thousand units/ha. At the same time, the crops formed the maximum yield (2.95 t/ha) with the best economic indicators (gross production value - 57525.00 UAH/ha, conditional net profit - 35960.00 UAH/ha, profitability - 166.8%).

References:

1. Akhmat O. (2016). Agroecological conditions of soybean cultivation for seeds in the conditions of the Western Forest-Steppe. Feed and fodder production. (5). 92-95.
2. Palamarchuk VD, Klymchuk OV, Polishchuk IS, Kolisnyk OM, Borivskyi AF (2010). Ecological, biological and technological principles of growing field crops. Vinnytsia: FOP Danilyuk.
3. Chernyshenko PV, Kirichenko VV, Magomedov RD, Shelyakin VO (2009). Formation of soybean seed productivity depending on the method of sowing and seeding rates. Bulletin of the Central Scientific and Educational Center of the Kharkiv Region. (5). 51-56.
4. Matushkin VO, Magomedov RD, Moshkova OM (2006). Soybean varieties and their agrobiological features of cultivation. V.Y. Yuriev Institute of Plant Industry. Kharkiv.
5. Artemenko S., Kramarev S. (2014). Inlay is an effective measure to increase soybean productivity. Proposal. (3). 86-91.
6. Shevnikov M.Y., Milenko O.G. (2015). Field germination and survival of soybean plants under different variants of phytocoenotic stress. Bulletin of Sumy National Agrarian University. Series "Agronomy and Biology". 9 (30). 148-151.
7. Didur IM, Shevchuk VV (2020). Increasing soil fertility as a result of biological nitrogen accumulation by legumes. Collection of scientific papers of VNAU. Agriculture and forestry. (16). 48-60.
8. Shevnikov M.Y. (2007). Scientific bases of soybean cultivation in the conditions of the left-bank forest-steppe of Ukraine: Monograph. Poltava.
9. Kovalenko O. A. (2021). *Agroecological substantiation and development of elements of biologized technologies for growing crops in the South of Ukraine* (PhD thesis.. ...Doctor of Agricultural Sciences). Kherson State Agrarian and Economic University. Kherson. Ukraine.
10. Kovalenko O. A. (2022). Spring barley: ecologization and economic indicators of cultivation: Scientific monograph. "Modern aspects of scientific research in the context of modernization of biological and natural science education". Riga, Latvia: "Baltija Publishing". DOI <https://doi.org/10.30525/978-9934-26-257-9-5>.

11. Gamayunova VV, Kovalenko AA, Honenko LG (2018). Modern approaches to the management of the agricultural sector on the basis of biologization and resource conservation. Rational use of resources in the conditions of ecologically stable territories: a collective monograph; edited by P. Pysarenko, T. Chaika, I. Yasnolyub. Poltava. LLC SPE "Ukrpromptorgservice".

12. Osipchuk AM, Cherniak NG, Goncharuk OP (2018). Recommendations for soybean cultivation in farms of Kyiv region. Chubynske.

13. Palamarchuk VD, Polishchuk IS, Yermakova LM, Kalenska SM (2013). Biology and ecology of agricultural plants. Vinnytsia: FOP Danilyuk.

14. Shepilova TP (2017). Influence of sowing methods and seeding rates on soybean productivity. Collection of scientific works of the Department of General Agriculture of the Central Ukrainian National Technical University. Kropyvnytskyi.

15. Shepilova TP, Grigorenko AV (2017). Soybean yield depending on row spacing and seeding rates. Collection of scientific works of the Department of General Agriculture of the Central Ukrainian National Technical University. Kropyvnytskyi.

16. Vozhegova R., Borovyk V., Rubtsov D. (2018). The influence of plant density and fertilization on the formation of soybean seed productivity. Bulletin of Lviv National Agrarian University. Series "Agronomy". 22(1). 303-308.

17. Kovalenko O.A., Fedorchuk M.I., Hamaiunova V.V., Goreva L.A. (2023). Influence of sowing density on the productivity of soybean varieties of different maturity groups in the Northern Steppe of Mykolaiv region. *International scientific journal «Grail of Science»*. № 29. P. 150-155.

18. Dospekhov B.A. (1985). Methods of field experience. Moscow: Agropromizdat.

19. Volkodav V.V. (2001). Methods of state variety testing of agricultural crops. B. 2. Cereals, cereals and legumes. K.: State Commission of Ukraine for Testing and Protection of Plant Varieties.

20. Methodology of state variety testing of agricultural crops (2000). Kyiv. (1). 100.

21. Ushkarenko VO, Nikishenko VL, Holoborodko SP, Kokovikhin SV. V. (2008). Analysis of variance and correlation in agriculture and crop production: a textbook. Kherson: Ailant.

Pedagogical Sciences

SOKRATİK SEMINARLARIN TƏLİM PROSESİNİN SƏMƏRƏLİ TƏŞKİLİNƏ EFFEKTİV TƏSİRİ

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ABSTRACT

One type of seminar is the Socratic seminar, in which the students lead the discussion. It is discussed the stages and importance of the Socratic seminar in the universities seminar classes. While a professor may introduce the topic and facilitate the conversation, the goal is to allow participants to think for themselves. These types of seminars may include elements of debate, and the topic might take the form of an open-ended question, rather than a foregone conclusion. The students use a group discussion style to assist one another comprehend the ideas, concerns, and values portrayed in a book in a Socratic Seminar exercise. These Seminars promote active learning by having participants investigate and analyze the ideas, concerns, and values in a certain text. An excellent seminar is made up of four interconnected components: (1) the book under consideration, (2) the questions posed, (3) the seminar leader, and (4) the attendees. The conventional conversation on the left features the teacher in the middle, with arrows leading to and from students. The arrows in a Socratic Seminar go back and forth between all of the students, without necessarily passing through the teacher. Discuss rather than debate and be respectful; NO PUTDOWNS. The goal is to have a better understanding. Depending on the class size and dynamics, there are two options: one huge circle for all students or fishbowl style (where participants in an inner circle conduct a conversation and participants in an outside circle coach the inner circle).

Keywords: Socratic Seminar, Attitude, Discussion, Requirements, Question

1. GİRİŞ

"Seminar" termini Latin mənşəli olan "toxum sahəsi" mənasını verən seminarium sözündən əmələ gəlib. Beləliklə, seminar ideya və düşüncələrin əkiləyi və onların böyüməsini izləmək üçün bir sahə kimi düşünülə bilər. (1. 20–24.) Mühazirədən fərqli olaraq, seminar dərsləri, yalnız bir professoru dinləmək və qeydlər aparmaq əvəzinə, tələbələrlə interaktiv dialoqlar şəklində qurulmuş dərslərdir. Bu səbəbdən seminar dərsləri praktik dərslərdən fərqli olaraq kompleks ideyalarla məşğul olmaq üçün çıx əlverişlidir.

Seminarlar tələbə sayına görə mühazirə dərslərindən daha kiçikdir - çox vaxt on nəfərdən çox deyil və əhatə dairəsi və müddəti məhduddur. İştirakçılar sıralarda oturmaq əvəzinə, müzakirələri asanlaşdırmaq üçün dəyirmi masanın ətrafında otura bilər. Seminarlar interaktiv olsa da, praktiki deyil. Seminarlar, tələbələrin oxuduğu mühazirə mövzuları haqqında ətraflı danışmaq üçün nəzərdə tutulmuşdur, buna görə tələbələr debatda fəal iştirak etməlidirlər. (2. 272–283.)

Seminarın bir növü olan və tələbələrin müzakirələrə rəhbərlik etdiyi Sokratik seminardır. Yunan filosofu Sokrat tərəfindən işlənib hazırlanmış Sokratik Metod müəllim və tələbələr arasında müəllimin davamlı araşdırma sualları ilə təhrik edilən, tələbələrin baxış və mülahizələrini formalaşdıran əsas inancları araşdırmaq üçün birgə səylə aparılan dialoqdur. Professor mövzunu təqdim edərək söhbəti asanlaşdırsa da, əsas məqsəd tələbələrin özlərinin sərbəst və müstəqil fikirlər irəli sürməsinə imkan verməkdir. Bu tip seminarlara müzakirə elementləri daxil ola bilər və mövzu əvvəlcədən bağlanmış nəticə deyil, açıq sual şəklində aparılır.

Sokratik seminarlar çətin hesab edilən mövzuların tələbələr tərəfindən qruplarda araşdırılaraq dərk edilməsi üçün təşkil edilən səmərəli yoldur. Tələbələr mövzunu oxuyur, sualları müzakirə və analiz edir və verilmiş mühüm informasiyanı anlamağa çalışırlar. Beləliklə, tələbələrdə oxuma, dinləmə, təhlil etmə, sərbəst fikirbildirmə, müzakirə etmə bacarıqları inkişaf edir. Ümumiyyətlə, sokratik seminarların ən vacib məqsədi ayrı-ayrı fərdlərin müstəqil fikir söyləmə, müzakirə vasitəsilə problemə fərdi münasibətlərini “kəşf etməsidir”.

Sokratik seminarlar öyrənmə prosesinə fəal yanaşmadır və hər mövzu üçün tətbiq etmək mümkün olmur. Bu zaman informasiyanın diqqətlə oxunması və müzakirəsi, hətta bəzən debat strategiyasından istifadə olunur. (3. 29–33.)

Sokratik seminarların əsas elementləri aşağıdakılardır:

1. Müzakirə və mübahisə mövzularını ehtiva edən mətn
2. Auditoriya şəraitində qrup müzakirəsi və mübahisəsi
3. Suallar

Sokratik dialoqun dörd əsas kateqoriyası var: Fikrin aydınlaşdırılması. Düşüncənin tənqidi yoxlanması. Bəyanatın mənşəyinin və ya mənbəyinin araşdırılması. Bəyanatın nəticələrinin araşdırılması. Sokratik təlim metodundan istifadə edən təlimatçı məlumat və faktlar vermək əvəzinə tələbələrə konkret mövzu və ya məsələ ilə bağlı bir sıra açıq suallar (hə və ya yox cavabından çox olan suallar) verir. Öz növbəsində tələbələr də öz suallarını verə bilərlər. Sokratik Metod bütün tələbələrə böyük qruplarla danışmağa daha çox inam verir, onlara güclü və inandırıcı şəkildə mübahisə etmək bacarığını inkişaf etdirməyə imkan verir və onlara tənqidi düşünməyi öyrədir. Sokratik seminarlar prosesi formal seminardan kənara çıxdıqda, bütün məktəbin tədris mühitini dəyişir. Tələbələr məlumatı nəinki fərqli şəkildə əldə edirlər, həm də bunu düşünmə/mülahizə prosesinin ən yüksək nöqtəsində edirlər. Öz mülahizələrinə güvənən tələbələr daha yaxşı imtahan verirlər.

Sokratik seminarın məqsədi tələbələrin sorğu vasitəsilə mətni daha dərinləndirən başa düşmələridir. Sokratik seminar müəllimin mətn parçası üzərində şagirdin təhlilini başa düşməsinə qurmağa və yoxlamağa kömək edə biləcəyi bir üsuldur. Şagirdlər mətn haqqında maraqlı müzakirə aparmaq üçün suallar yaradacaqlar.

Sokratik seminar fəaliyyəti tez-tez müzakirə rəhbərinin, tələbənin və ya müəllimin açıq sual verməsi ilə başlayır. Tipik açılış əmri belədir: Sizcə bu mətn nə deməkdir? Sükut yaxşıdır. Tələbələrin fəallaşması bir neçə dəqiqə çəkə bilər.

Planlaşdırılmış Sokratik Seminardan bir və ya iki gün əvvəlmüəllim seminarqabağı tapşırıqlar verməlidir: *suallar yazmaq, qeydlər etmək və bəzi kənar araşdırmalar aparmaq.*

Sokratik seminarlar tələbələrdən müəllimin müdaxiləsi olmadan düşünülmüş və cəlbədicə suallar verməklə müzakirə aparma bacarmağı tələb edir. Şagirdlər həmçinin başqalarını diqqətlə dinləməli və əlavələr edərək, razılaşıraqlar və ya razılaşımayaraq və aydınlaşdırıcı suallar verərək söhbəti davam etdirməlidirlər.

2. MƏTNLƏRƏ QOYULAN TƏLƏBLƏR

Mətndə mühüm, dəyərli fikirlər ifadə edilməlidir. Mətnin səviyyəsi və çətinlik dərəcəsi tələbənin anlama səviyyəsinə uyğun olmalıdır. Mətnə tələbələrə özünə cəlb edən qeyri-müəyyənlik olmalıdır. Elə bir mətn seçilməlidir ki, mövzuya müxtəlif rakurslardan yanaşmaq olsun. Müzakirə materialı kimi qəzet məqalələri, şeir, musiqi, yeni çapdan çıxmış kitab və s. seçilə bilər. Məsələn, nümunə üçün məşhur ingilis yazıçısı Corc Oruellin “Heyvanıstan” povestini götürək. Tələbələrle bu romanın təhlilini müxtəlif rakurslardan aparmaq üçün sokratik seminarlar təşkil etməklə onların həm ədəbi, həm tarixi, həm bədii biliklərini üzə çıxarmaq olar. Məhz bu vasitə ilə tələbələr ingiliscə danışaraq, mülahizə yürüdüüb fikrini çatdıraraq, danışmaq bacarıqlarını da nümayiş etdirmiş olurlar.

Sokratik seminarlarda müəllim, fasilitator-bələdçi funksiyasını daşıyaraq müzakirəni istiqamətləndirir.

Seminarlarda tələbələr dəyirmi masa və ya kvadrat şəklində oturur. Məqsəd onların bir-birilərini görə bilməsini təmin etməkdir. Seminarlarda hazırlanan sualları açıq tipli suallar və tələbələrə yönləndirməlidir. (4. 60–65.) Tələbələr öz fikir və düşüncələrini çatdırırlar. Seminarda hazırlanan suallar üç növdə olur:

Sokratik seminarlara uyğun **təhliliyönümlü (açıq) suallar:**

1. Mətndəki ana fikir və ya mətnaltı məna nədir?
2. Yazıçının məqsədi və ya baxış bucağı nədir?
3. Konkret bir cümlə və ya bölmə hansı mənaya malikdir?
4. Bu mətn üçün ən uyğun başlıq nə ola bilər?
5. Mətndəki ən önəmli söz, cümlə, abzas hansı ola bilər?

Mübahisəyönümlü suallar:

1. Mətndəki fərqli baxış bucaqları nədir?
2. Mətnlə bağlı sizin fikirləriniz nədir?
3. Mətndəki fikirlər sizdə necə təəssürat oyatdı?

Seminarı yekunlaşdırmaq üçün istifadə olunan **ənənəvi suallar:**

1. Mətndəki fikirlərlə real yaşam arasında nə kimi əlaqə var?
2. Bu mətn nə ifadə edir və bizə şəxsiyyət olaraq nələri aşılıyır?
3. Mətndəki fikirlər niyə önəmlidir?
4. Mətndəki fikirlər həqiqəti nə dərəcədə əks etdirir?
5. Yazıçının fikirləri ilə razısınızmi?

Sokratik seminarları planlaşdıran zaman müəllim üç mərhələli dərs hazırlayır:

- I mərhələ- Seminarı başlamazdan əvvəlki proses
- II mərhələ- seminar
- III mərhələ- seminardan sonrakı proses

Semindən əvvəlki mərhələdə müəllim dərsin mövzusunə uyğun, çətin səviyyəli mətni seçməli, sinfə və ya auditoriyaya gətirməli, dərsin məqsədini təhsilənlərin nəzərinə çatdırmalıdır. Seminarın mətni onlara oxunmalıdır. Seminara qatılacaq tələbə və ya şagirdlər müəyyənləşdirilməlidir. Bu seminarlara könüllü tələbələr qatılmalıdır. Sınıf və ya auditoriya U şəkilli ya dairə, ya da kvadrat formasında qurulmalıdır. (6. 29–33.) Mübahisə qaydaları tələbələrin diqqətinə çatdırılmalıdır.

Əsas qaydalar aşağıdakılardır:

1. Söz haqqı istəyərək danışın
2. Bir-birinizi dinləyin, danışanın sözünü kəsməyin
3. Bir-birinizə hörmətlə yanaşın
4. Mövzudan kənara çıxmayın və s.

Seminar müddətində müəllim mübahisəni istiqamətləndirir, əvvəlcə yönləndirici suallar verir, tələbə öz fikrini ifadə etdikdən sonra ona fikirlərini genişləndirmək üçün suallar verir. Mübahisənin sonunda yekunlaşdırıcı suallar verilir. (5. 12-13)

Sokratik seminarlar 50-80 dəqiqə müddətində maksimum 25 nəfərdən ibarət qruplarla təşkil edilir. Ancaq ideal say 13-15 nəfərdir. Belə seminar dərsləri tələbələrin intellektual səviyyəsini, analitik düşünmə bacarıqlarını inkişaf etdirir.

Seminarın üçüncü mərhələsində tələbələrin qiymətləndirilməsi məqsədi ilə suallar verilir və dəyərləndirmə aparılır. Bu prosesə seminar iştirakçılarının hər birinin qatılması heç də əsas şərt deyil. Daha aktiv olan iştirakçıların qatılması məqsəduyğundur.

Sokratik seminarların bir çox üstünlükləri var. Böyük qruplarla işləyərkən müəllim tələbələrə eyni anda bir-biri ilə ünsiyyət qurma qaydalarını nümayiş etdirir. Bu seminarlar zamanı iştirakçılar öz fikir və fərziyyələrini sübuta yetirmək və ya diqqətə çatdırmaq üçün əvvəlki dərslərdə əldə etdikləri bilikləri tətbiq edirlər. Qrup üçün liderlərin seçilməsi də təhsilalanlarda liderlik qabiliyyətlərini formalaşdırır.

İlk baxışda sokratik seminar hay-küylü, qarışıq təəssürat yarada bilər. Lakin bir neçə belə seminardan sonra iştirakçılar başa düşəcəklər ki, “düşünmək” “qalib gəlmək”dən daha üstündür.

Beləliklə, Sokratik seminarları belə səciyyələndirmək olar:

- Sokratik seminarlar kollektiv sorğudur
- Sokratik seminarlarda təqdim olunan sualların yeganə doğru cavabı yoxdur. Belə ki, bir neçə mümkün cavab və perspektiv vardır.
- Sokratik seminarlar fikir mübadiləsidir. Şəxsi rəy və düşüncələrin paylaşılmasıdır.

Sokratik seminarlar Akademik, Sosial və Emosional Öyrənmə üzrə Əməkdaşlıq Təşkilatı tərəfindən bütün beş sahəni birbaşa öyrətmək və qiymətləndirmək üçün fürsət təklif edir: sosial şüur, özünüdərkətmə, özünüidarəetmə, münasibət bacarıqları və məsuliyyətli qərar qəbul etmə.

İştirak etməyə və yaxşı suallar verməyə hazır olun. İştirakçılar hazırlıqsız danışdıqda Sokratik Seminarın keyfiyyəti aşağı düşür. Fərqli fikirlərə, düşüncələrə və dəyərlərə hörmət göstərin - heç bir sarkazm olmamalıdır. Hər bir nətiqə fikirlərini başlamaq və bitirmək üçün kifayət qədər vaxt verin - sözünü kəsməyin.

3. NƏTİCƏ

Sokratik seminarın üç üstünlüyü var. Onlar tək-cə tənqidi təfəkkürü inkişaf etdirmir, həm də əvvəlki biliklərlə əlaqə, sualların verilməsi və cavablandırılması, iddiaları əsaslandırmaq üçün dəlillərə ehtiyac və bir məsələyə müxtəlif perspektivlərdən baxmaq bacarığı vasitəsilə yeni biliklərin qurulmasını asanlaşdırır. Sokratik seminarlar verilməmiş məndən kollektiv müzakirə və dialoq vasitəsilə ümumi mənanın çıxarılmasıdır. Akademik qurumlarda, adətən elmi sahələrində, belə seminarların təşkili tələbələrin və iştirakçılarının müstəqil düşüncə, müzakirə və mübahisə bacarıqlarını inkişaf etdirir və öyrənməni səmərəli edir. Seminarlar o zaman yüksək səviyyədə aparılmış hesab edilir ki, tələbələr əvvəlcədən mətni diqqətlə araşdırır, fəal dinləyir, öz ideya və suallarını digər tələbələrlə müzakirə edir, onların fikir və suallarını cavablandırır və öz fikirlərini əsaslandırmaq üçün məndən dəlillər gətirir. Sokratik seminarlar tək-cə aktiv öyrənmənin təşviqi üçün əla deyil, həm də tələbələrin kollec səviyyəsində müzakirələrə və debatlarla hazırlaşmasına kömək etmək üçün istifadə edilə bilər.

Readers can use this article as a practical guide for incorporating the Socratic Seminar into their classroom instruction. At the conclusion, a table and infographic are supplied to help practitioners with their Socratic questioning.

Ədəbiyyat

1. Adler, M. (Winter 1982). "A Revolution in Education." *American Educator* 6, 4:
2. Kohn, A. (December 1994). "The Truth about Self-Esteem." *Phi Delta Kappan* 76.
3. Dialogic discussion and the Siddhartha seminar. L Billings, J Fitzgerald. *American Educational Research Journal*, 2002
4. Perkins, D. (Fall 1993). "Teaching for Understanding: To Memorize and Recite or To Think and Do." *American Educator*.
5. Tredway, L. *Socratic Seminars: Engaging Students in Intellectual Discourse*. 1995.
6. Sylwester, R. (October 1994). "How Emotions Affect Learning." *Educational Leadership* 52.
7. Woolever, R. M. (October 1987). "A New Framework for Developing Classroom Questions." *Social Education*: 410.
8. Acim, R. (2018). The Socratic method of instruction: An experience with a reading comprehension course. *Journal of Educational Research and Practice*, 8(1), 4. <https://doi.org/10.5590/JERAP.2018.08.1.04>
9. Billings, L., & Roberts, T. (2006). Planning, practice, and assessment in the seminar classroom. *The High School Journal*, 90(1), 1–8.
10. Chowning, J. T. (2009). Socratic Seminars in Science Class. *Science Teacher*, 76(7), 36–41.
11. Darginavièienė, I. (2007). The Socratic Method in a foreign language classroom. *Acta Paedagogica Vilnensia*, 18.
12. Facione, P., & Facione, N. (1994). *Holistic Critical Thinking Scoring Rubric*. Milbrae, CA: The California Academic Press.

Multiculturalism: Perspectives in the Georgian Classrooms

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Abstract

The educational system should actively contribute to developing conditions that promote peaceful coexistence and constructive interaction between various cultural groups to build democracy.

The internationalization of education is a necessary duty of the twenty-first century to respond to globalization in educational institutions. The goal of education should be to prepare students to compete in the global labor market. The population needs to be prepared to accept a multicultural and diverse world.

As a result of multiculturalism being incorporated into the curriculum, school children are now learning about other cultures and values instead of just Eurocentric ones. To fulfill contemporary requirements, multicultural education is continually being examined and changed.

In the last decade before the country's declaration of independence, and then, after it, the national narrative in Georgia grew stronger. At this point, it is essential to introduce the idea of multiculturalism to teachers and students in educational programs in a correct and careful manner. Assimilation anxiety is prevalent in academic settings. The new policy in Georgia should follow the best practices of the West, at the same time, rely on the outstanding national traditions in this respect.

Keywords: multiculturalism, education, curriculum, assimilation.

Introduction

Multiculturalism: perspectives in the Georgian classrooms

The inclusion of multiculturalism in the curriculum has changed how students learn globally, moving them away from Eurocentric values and cultural material. Multicultural education is still being reviewed and modified to meet 21st-century standards.

A long history of shifting concepts and terminology led to the emergence of modern multicultural education. The term "multiculturalism" has undergone extensive reevaluation and redefinition throughout the years, while the terms used before multiculturalism are still crucial: Century Skills, . Acculturation, Bicultural, Cultural Diversity, Ethnocentrism, Global Community, Global Education, Intercultural, Multicultural, Pluralism;

The majority of researchers (Banks, Bennett, Gorsky, etc.) use the term "multicultural education" in relation to education issues, and in the part of scientific works, we will also meet the terms "multicultural" and "intercultural" as synonyms.

Agostino Portera (2008) highlights a comprehensive understanding of the shift between the two terms: The first (multicultural education) highlights the cultural diversity of human societies and aims to develop student awareness of cultural differences, as well as develop anti-discriminatory attitudes. The second (intercultural education), referred to by Portera as 'the Copernican revolution in Education', switches the attention of learners from static and stereotypical images of cultures and cultural differences to the dynamic perspective of cultures in contact, intercultural relations, and intercultural competencies (Bleszynska, 2008), "the possibility of creating shared forms of cultural self-expression between diverse cultures based on equal relations and dialogue and mutual respect (Sh. Tabatadze, N. Gorgadze, 2020).

This new approach derives from the specificity of a global society and can be perceived as education's response to the challenges of cultural migration. The definition of multicultural education describes the difficulties of teaching many cultures appropriately and accurately. The definition of intercultural education describes educating students on how to interact positively in a global community. Through a multicultural curriculum, students are exposed to cultures that are inherently different from the dominant one. Changing society creates significance for globally minded curriculums.

Methodology:

The research gives a brief outline of the study based on literature analysis, embracing the two-century experience of Georgian national pedagogic thinking. It also considers the results of interviews with teachers from different teaching institutions.

Discussion

The Changing Perspective of Internationalism

To strengthen democracy, the education system should aim to actively participate in creating conditions for peaceful coexistence and positive interaction between different cultural groups.

Internationalization of education, being an answer to globalization in educational institutions, is an inevitable task of the 21st century. The educational process should create the basis for preparing a person, to compete in the world labor market. Citizens must be ready for accepting a multicultural and diverse world.

To look into the recent history of Georgia, the Soviet Union, the part of which the country was, based on the ideology of internationalism. The curriculum included the culture and history of all the 15 constituent republics, and not only: those of the countries of the so-called socialist camp were also taught emphatically. Thus, the method of how to build up textbooks and curricula, the precedent, and the experience exists in Georgia. However, it must be pointed out, that this very moment of internationalism caused dissatisfaction in circles holding a national spirit: internationalism was understood as a part and continuation of the Russian colonial policy from the 18-19 centuries. This attitude is alive in Georgia nowadays as never before. Though, the explanation of this phenomenon is a topic of qualitatively different research.

After gaining independence from the country, in the last decade of the twentieth century, the national narrative and the negative attitude towards internationalism strengthened. When it comes to educational programs, it is necessary, at this stage, to correctly and carefully bring the concept of multiculturalism to both teachers and students. Academic circles have a burden of assimilation fear. And so, above all, academia needs to ensure that this trend of multiculturalism in education can work in the nation's favor. The significant history of fighting against assimilation

dates back to the 18th century, after becoming a colony of Russia. National figures, including Ilia Chavchavadze and Iakob Gogebashvili, considered the mother tongue and native culture to be a valuable tool: "When we talk about the mother tongue, we must mean the whole thought system that is related to the mother tongue and its culture, without which, a child breaks his connection with his homeland "(რ.შატავაძე 2010).

That's why the "great national interest" demanded education in the mother tongue. But Iakob's and Ilia's principles were not dictated only by national interest, but by pedagogical ones. Ilia stated: "It is absolutely impossible to open the mind of a child in a foreign language" According to Gogebashvili's deep belief, teaching in a foreign language and rejecting the mother tongue hinders the child's mental development. "Native language has been tailored over nature of the soul and flesh of a man, over his psychological and physiological structure... The language is unrelated to a human-like garment, which can be changed easily and carelessly"(ibid). The views of Gogebashvili are not at all opposed to the need to teach foreign languages. On the contrary: "The study and knowledge of European languages is of such great importance for everyone, and especially for us, that it is impossible to add more to this importance... Every good Georgian should strongly advise them: to learn European languages as deeply and thoroughly as possible and drink European science greedily and insatiably (ibid). Nowadays, this inheritance of Georgians –the works of Georgian thinkers can be used as a background to multicultural education, as, on the one hand, it gives the right path to follow to survive own culture, and on the other hand to meet the world's demands today. They give the key to getting through a modern environment, implementing the elements of intercultural education, developing a multifaceted vision and the ability to avoid conflicts, to respect shared values. The present studies and interviews clearly confirmed that teachers in Georgia either have no idea what multicultural education and its purpose are or have a very limited understanding of it. However, a teacher with high intercultural sensitivity, equipped with relevant knowledge and skills is considered the most critical factor for the effectiveness of the intercultural education process. The research also addresses the causes of knowledge and skills deficits. Most teachers did not receive an appropriate education then, or this education no longer responds to modern approaches. For some, theoretical knowledge was not enough for successful practice. At the same time, we have a few examples of good practice when teachers creatively use the given ethical or religious composition in class and arrange presentations, conferences, etc., which gives way to a more understanding climate in the classroom. Students considered the experience most memorable (Sh. Tabatadze, N. Gorgadze, 2020).

More than 15% of Georgia's population is ethnically non-Georgian, and this diversity has increased in recent years. With this in mind, multicultural education is not only a future need but also a present necessity. In general, preparation for the challenges of a diverse, global environment is of the utmost importance for today's students to become competitive citizens.

Thus, the situation in Georgia is challenging, however, it should be taken into account that the experience of self-preservation creates the best ground for respecting other nations. World experience shows that the Civil Rights movement of the 1960s marked the beginning of the development of multicultural education in the States. Schools in the United States operated on a Eurocentric-specific paradigm of education before the focus on multicultural education. Multiculturalism had developed into a deliberate approach between the 1970s - 1990s that aimed to educate students about various cultures and viewpoints.

Public schools in America faced the challenge of creating new curricula that included cultural content. A manual prepared was to provide strategies and resources that may be incorporated into current curricula to make them genuinely interracial and intercultural, to dispel myths and draw attention to misconceptions that impede the growth of intercultural and interracial education; to give a professional basis of knowledge, experiences, and materials that

familiarize instructors with trends in intercultural and interracial education, to encourage and prepare everyone for full citizenship in a democratic society.

Acculturation was supported in the public school system by educational policies before multicultural pedagogy. Many people in America believed that their culture was Anglo-Saxon (Banks (1994). Although it was commonly recognized that the population comprised people from a wide variety of ethnic backgrounds, they were nonetheless expected to assimilate into the values previously established in the United States through education and other cultural standards that favored Anglo-Saxon cultural norms. They paid little attention to differentiating learning styles for children from other cultures. National Acts and state programs have been established since the 1960s to promote the development of multicultural education (Joshee & Johnson 2005, p. 61).

These policies and initiatives have been utilized to boost fairness, although it has been noted that they frequently encourage assimilation rather than recognizing and educating about cultural variety. The Elementary and Secondary Education Act (ESEA), "...legitimized federal involvement in education programs designed to meet national objectives." (Joshee and Johnson, 2005). During the 1990s, at least 45 states had at least a basic policy and curriculum on multicultural curricula in place. (Joshee and Johnson, 2005). Schools must help students gain broader and more accurate views of American society and culture if they are to help this nation shape the kind of future which is imperative for our survival in the twenty-first century, as Banks noted in his influential work. (Banks 1981, p. 19).

Multicultural education also began embracing the concept that people develop personal identities through their cultural background According to Donna M. Gollnick and Phillip C. Chinn (1990), "An educational goal is to help students value cultural differences while realizing that individuals across cultures have many similarities" (1990, p. 2). The learning environment supporting a curriculum that is culturally relevant and suitable can be attempted by teachers and students that value cultural diversity both globally and locally. (Ballengee-Morris & Stuhr 2001, Banks 1981, 1994, Buffington 2011, Chin 2011, Ford 2014, Gollnick & Chinn 1990, Howard 1996, Ovando & Gourd 1996, Sleeter & Grant 1987, 2009, Tarr 2003). Gary Howard (1996) examines how Caucasian American fits into multiculturalism and how they might better appreciate other cultural identities. In particular, while dealing with children whose first language is not English, multicultural theory considered how the teacher influences the delivery of a multicultural curriculum. According to him, these facts strongly imply that many White Americans would need to undergo significant educational change as well as profound psychological transformations to peacefully transition to a new sort of America in which no ethnic or cultural group holds a dominant position (1996, p. 324).

Cultural content must be included in a way that takes into account the experiences of the students. It encourages a shift in education where no ethnic or cultural group becomes dominant in the classroom and ensures that it is meaningful to all pupils. To prevent and combat stereotypes learned in homes, schools, communities, and the media, students must be exposed to multicultural education more frequently. Some ways to teach students to respect other cultures also incorporate studying social justice issues from different perspectives, while students are developing empathy, compassion, and understanding of similarities and divergences. Teaching the culturally diverse, human relations, single-group studies, multicultural education, and multicultural social reconstructionist education were the five main categories Sleeter and Grant (1987, 423) divided multicultural education into. In 2009, Sleeter and Grant replaced the last of the categories with multicultural social justice education.

Conclusion:

As it is evident, despite the great experience in the Georgian solder generation of academic circles, multicultural and intercultural education in Georgia should be seen from a new perspective in our time. The accumulated knowledge in this field allows us to declare, that the

new trend should be based on outstanding national traditions and its best practices. The fathers of the national movement at the end of the 19th century in Georgia emphasized the primacy of the native language /culture and the introduction of new cultures afterward, that do not contradict, but complement each other, and in the end, enrich human intelligence. On the other hand, the new policy in Georgia should follow the best examples of the West. It is essential to carefully study the experience that the educational institutions of the West, in particular, the USA, have had in this regard since the 60s of the last century when the protest matured against the system built on the Anglo-Saxon model when the best teachers raised their voices against stereotypical thinking.

Bibliography:

Agostino Portera (2005) Intercultural education in Europe: epistemological and semantic aspects,

https://www.academia.edu/3551884/Intercultural_education_in_Europe_epistemological_and_semantic_aspects

James A. Banks, Multicultural Education: Historical Development, Dimensions, and Practice, Review of Research in Education, Vol. 19 (1993), pp. 3-49 (47 pages)

Published By: American Educational Research Association, <https://doi.org/10.2307/1167339>
<https://www.jstor.org/stable/1167339>

James A. Banks , Multicultural Education and Curriculum Transformation, , The Journal of Negro Education

Vol. 64, No. 4 (Autumn, 1995), pp. 390-400 (11 pages), Published By: Journal of Negro Education, <https://doi.org/10.2307/2967262>

<https://www.jstor.org/stable/2967262>

Krystyna M. Bleszynska, Constructing Intercultural Education, December 2008, Intercultural

Education 19(6):537-545, DOI:[10.1080/14675980802568335](https://doi.org/10.1080/14675980802568335),

https://www.researchgate.net/publication/249003171_Constructing_intercultural_education

Gary Howard (1996) Multicultural to intercultural art education Kathryn A. Gong James Madison University

Gollnick, Donna M., Chinn, Philip C., Multicultural education in a pluralistic society Columbus: Merrill Pub. Co., [1990].

Reva Joshee, Lauri Johnson Multicultural education policies in Canada and the United States. University of British Columbia Press,

https://www.researchgate.net/publication/280720720_Multicultural_education_policies_in_Canada_and_the_United_States

Carl A. Grant, Christine E, Sleeter, An Analysis of multicultural education in the United States, 1987.

https://www.academia.edu/2326546/An_analysis_of_multicultural_education_in_the_United_States

Carl A. Grant , Christine E. Sleeter, Doing multicultural education for achievement and equity, second edition, August 2012.

https://www.researchgate.net/publication/286730251_Doing_multicultural_education_for_achievement_and_equity_second_edition DOI:[10.4324/9780203831397](https://doi.org/10.4324/9780203831397)

IMPROVING THE METHODOLOGY OF TEACHING SPECIAL DISCIPLINES THROUGH THE TRADITIONAL ART OF EMBROIDERY

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Annotation

The proposed article provides for the development of creative abilities of students in the production of handmade works at school, the development of a love of art, requirements for the beautiful, the development of artistic taste, the formation of artistic thinking skills of students through embroidery. The duty of every teacher is to shape students' special abilities, talents, artistic thinking, and the ability to guide their further development. In art classes at school, students begin to think creatively, to find a way out of a dead end at any stage. The ability to see, feel, understand and perform the beauty of life and art does not come by itself. This ability must be developed purposefully. The formation of students' interest in the subject, artistic and creative thinking, love of work, aesthetic education by teaching them manual labor is the professional duty of every teacher. The article also describes the development of creative activities of students of secondary schools through national arts and crafts, adapting young people to the formation of skills, describes the historical development of their folk arts and crafts.

Key words: art, arts and crafts, embroidery, artistic thinking, skills, art education, ethno-pedagogy.

Introduction.

The task of national education at art work lessons is the formation of a diversely developed personality, the main part of the methodological system for the new technology is the ability to apply arts and crafts at art work lessons. The social and educational role of this art is assessed not only in the peculiar artistic and creative value of its works. It is also manifested in the expression of the tastes of the people of its time, artistic and creative thinking, continuity of culture and national traditions of the past. mastering this art encourages the pupil to diligence, beauty, knowledge of the history of his people, reading its cultural heritage and continuation of its traditions [1].

Artistic labour classes are conducted in an interesting way, for the development of artistic and creative thinking of students, first of all, the teacher must be skillful, well-rounded, always in search. Only then can the teacher develop the skills of his students and form artistic-creative thinking.

The development of artistic and creative thinking through the activity and cognitive activity of students, the preparation of a personality capable of making different decisions when necessary.

The teacher at the needlework lessons freely expresses the recommendatory opinions of students, uses a large number of effective methods that increase students's motivation for needlework, such as drawing, orientation, search, use of visual aids, develops artistic-creative

thinking and imagination of students, their skills of working with consciousness in the manufacture of products.

Thinking is a special kind of theoretical and practical activity, which implies a system including orientation-activity and operations of research, remodelling and cognitive nature.

The development of students' creative thinking is one of the most important tasks of these schools.

Through handicrafts, a person's soul, mind, imagination, skills, abilities, wit, exactingness, punctuality and observation grow and improve. The method of teaching handicraft is a system of techniques, which the teacher uses to guide the creative activity of students at the lessons of artistic labour. Folk art, the history of the Kazakh people have been studied by many of our scientists and published works. M. Kozybakov, Sh. Abdualiev, S. Zholdasbekova, B. Ortaev and others have conducted research work on the basics of arts and crafts.

Foreign psychologists and educators J. Guilford, E. P. Torrence, as well as Russian researchers V. L. Danilova, P. Y. Galperin, Z. I. Kalmykova and others have been theoretically grounded opinions, and works to improve this property are under development.

A. E. Leontev in the study of thinking connects fundamental problems with the theory of action of general psychology. The works of S. L. Rubinstein, forming the principles of the study of the thinking process, highlight its laws and reflect the foundations of thought operations.

P. Y. Galperin considers the stages and types of development of thinking. In addition, with an extensive study of the quality and types of thought in this psychology, the features of the psychological term were presented: A. R. Luria, E. Bleuler, . Mayer, B. M. Teplov and others.

B. M. Teplov emphasises that intellectual features of thinking are manifested in actions when solving practical tasks.

At present, the questions of introducing the younger generation to art, reviving the features of artistic development of art are raised. We believe that this is where the foundation of the spiritual food of future generations lies. According to the work of V. A. Alexeeva we note that in the education of the generation art through art is important for the fulfilment of the basic duty of every citizen, i.e. for the formation of art thinking in labour [2, p. 44].

Handicraft on the Kazakh land was formed and became a cultural heritage more than two and a half thousand years ago, through the art of many tribes that left their indelible mark in each era. Its growth is conditioned, firstly, by the necessity of use in everyday life of Kazakh people, and secondly, by the high value of people on art. Upbringing of students in the practice of labour education, career guidance of students in our country is aimed at two closely interrelated goals: to develop the abilities, skills of the child in the process of labour education; to educate the child folk virtues in labour. These two directions cover all kinds of upbringing, continuing with each other. For example, labour education in folk practice, developing a child's skills and abilities, abilities necessary for mastering a profession, instills in him such qualities as diligence, dexterity, punctuality, flexibility, businesslike attitude, diligence, sociability [3, p.7].

Main part. Embroidery is a small stitch - tension, applied to a special fabric surface, the image of which is repeated by applying an ornament or pattern along the line of embroidery. We embroider along the line of the ornament applied to the fabric by embroidery, then fill the inside with different background threads. In this type of ornament, some outline patterns or flower stems are embroidered.

According to the sewing method, it is sewn evenly throughout, joining the loops together like chains. Chains vary in shape and size. Having secured the thread and drawn it over the right surface of the fabric, pulling it out as a hook and holding it with the clasped head of the left hand, the needle jumps up from the first prick. On the negative side of the stitch drop under the buttonhole, and leave the centre of the buttonhole at the top of the stitch.

A combination of fabric and embroidery thread is used to sew this type of thread. When embroidering choose fabrics of black, red, white and other colours as needed. Only if you choose the right fabric and embroider with harmonious coloured threads, it will become an attractive and valuable object.

When you mix a few strands of each colour so that the pattern still looks bright, the pattern begins to open up and become visible.

When you knit different colours of embroidery yarns, the pattern spreading across the surface of the fabric is covered with a kind of artistic paint.

Embroidery with embroidery requires a lot of work, a lot of time and skill, especially in the process of making wall paintings it is very important that the volume of Tuskegee is colourful.

We see that embroidery developed at a very high level among the peoples of the East, as well as among the Kazakhs and Kyrgyz. Materials of fabric, leather, felt, etc. are made with drawings, patterns using a variety of dyed threads, silk granules. The earliest samples of widespread embroidery can be seen in the barrows of Pazyryk and Noyyn-Ulan (V century B.C.) (tusyzyz, taskelem, uniforms, outer water Kaaba warriors, shekpen, komzol, Zhelen). Sometimes beads, pearls, coral and other precious stones are put on the table. Sometimes embroidery decorates the entire surface of the material, resembling a wreath. To decorate the product as a whole, oblique, termenvox, elderberry techniques are used. There are known types of embroidery, printed glossy, tambour embroidery, passion embroidery (two izdi), kenebe needlework, etc. We have two types of tables, which are called turf tables and tables of each type [4, P. 45-46].

By embroidery we mean a small stitch - tension, applied to a special fabric surface, the image of which we embroider by drawing an ornament or pattern on the line, and then fill the inside with different background threads. With this type of ornament, some outline patterns or flower stems are embroidered.

According to the sewing method, it is sewn evenly throughout, joining the loops together like chains. Chains vary in shape and size. Having secured the thread and drawn it over the right surface of the fabric, pulling it out as a hook and pressing it against the head of the left stake, the needle jumps down from the first prick, and onto the lower surface of the fabric. On the negative side of the stitch drop under the buttonhole and leave the centre of the buttonhole at the top of the stitch.

A combination of fabric and embroidery threads are used to sew this type of carving. When embroidering, black, red, white and other colours of fabrics are chosen as required. Only if you choose the right fabric and embroider with harmonious coloured threads, it will become an attractive and valuable object.

When you mix a few strands of each colour so that the pattern still looks lush, the pattern begins to open up and become visible.

The pattern applied to the surface of the fabric when knitting multicoloured embroidery yarns is covered with a kind of artistic paint.

Matching the embroidery with coloured thread increases the value of the product.

Embroidery with embroidery requires a lot of work, a lot of time and skill, especially in the process of making wall paintings, it is very important that the volume of Tuskegee is colourful.

Guided by the research of scientists in the field of pedagogy, psychology, we can define the following principles, which once again interact with each other in the development of creativity of students:

- taking into account the individual-psychological specificity of the student;
- predominance of cognitive activity of the student in the educational process;
- organisation of activities aimed at activating the awakening of pupils' inner feelings, as well as a positive attitude to learning;

- development of moral, intellectual and other qualities of personality;
- targetedness and transformation of educational means, forms, methods at lessons into a specific goal. Only when these principles are implemented, the level of the learner's development will increase, leading to self-organisation of the work of artistic-creative thinking.

These teaching principles are based on the all-round development of the student, awakening the student's interest, developing the culture of the student's artistic and creative thinking through learning activities, through the creation of their craft. Teaching technology and pedagogical skill are interrelated.

The influence of the educational process on the development of students as individuals is comprehensively highlighted. In addition, the improvement of the student's cultural values: social attitude, aesthetic attitude, physical culture is envisaged.

The influence of education on the development of students' cognitive processes is very great. D. B. Zankov used these technologies for developmental learning and determined the ways of common sense development in general.

The content of textbooks, designed to take into account the ways of accelerated development of all cognitive processes, makes a great contribution to the development of thinking. However, to solve this problem, each teacher needs a full understanding of the peculiarities of thinking, ways of its development.

The concept of artistic-creative thinking, being the equivalent of the concept of «creative abilities», implies a departure from the traditional contour of thinking, generating some new, creative thinking.

Structural components of artistic-creative thinking comprehensively determine the creative style of behaviour, provide novelty, uniqueness and creative transformation of personality in various spheres of everyday life.

A student with high creative potential differs from others: creativity, intellectual initiative, super activity, inclined to artistic-creative thinking, capable of going beyond the boundaries of pattern thinking, capable of solving the contradictions that have arisen; capable of shaping the results of his activity, capable of formulating and implementing new approaches to problem solving, has a predominant research ability.

The criterion of artistic-creative thinking is not the quality of the result, but the characteristics and processes that activate creative productivity. The development of artistic and creative thinking is also the formation and improvement of thought operations: analysis, comparison and addition, grouping, planning, deregulation. Also qualities of thinking - criticality, depth, agility, breadth, dexterity, variability, as well as the development of imagination and assimilation of knowledge of different content.

Artistic and creative thinking-leads students to be alert, savvy, agile, original, searching for non-standard solutions.

Through the creation and development of a craft, the soul, mind, imagination, skills, wit, demanding, punctuality, observation of the student grows and develops.

The main task of the teacher in accordance with the requirements of this time is to form the students' ability to think artistically and creatively, to make balanced decisions, comparing alternative points of view when creating their handicrafts.

Creativity characterises a subjectively significant innovation, creativity is a socio-cultural innovation that unites creativity.

Artistic and creative thinking is the highest step in the development of a creative student, and creativity is individualised and rises to a higher creative level.

The peculiarities of national art in the formation of artistic culture of schoolstudents in Kazakhstan set the following tasks:

- Formation of aesthetic attitude to the environment through mastering the language of expressiveness of applied craft;
- formation of knowledge necessary for aesthetic evaluation of the environment;
- Increasing the potential of pupils' creative abilities at needlework lessons;
- formation of students' sense of pride and patriotism towards the national art [5, P. 10-11].

Conclusion. Creativity is the ability to correctly orientate in new positions and needs in new products. Artistic and creative thinking is the ability to generate unusual ideas, to depart from traditional models of thinking and quickly solve problem situations; a set of mental and personal qualities necessary for the development of creative abilities. The scientific methodological foundations of artistic and creative thinking make it easier for a person to overcome the difficulties he/she faces with creativity in general.

Creative abilities are simply the power of imagination to find images, pictures, illusions, ideas and manipulate them according to one's own needs. The beginning of the activity of artistic and creative thinking begins with simple thinking.

Art is a subtle world that educates a person and influences him/her well. Artistic-creative thinking of students in making handicrafts leads to the ability to create the necessary products with their own hands, craftsmanship, craftsmanship. An important conceptual direction of the formation of students' professional skills, artistic taste in the preparation of national craft products is the connection of education, science, art, production and industry. At this time, in the concept of technological education, scientists set themselves the following goal: to train specialists in social production, to form in their knowledge of the world view of the national craft, to improve mental and professional creative abilities, to create conditions for the training of specialists the process of participation in several types of training and labour abilities.

It is a noble endeavour not to interrupt the lines of folk art, to appreciate them as a noble heritage of our people, to preserve and develop them as the apple of our eye. In the process of mastering arts and crafts in the education of artistic and creative thinking of students through the art of embroidery also requires a comprehensive explanation of its role in the life of the individual, full disclosure of its importance and essence and specific patterns.

References

1. Kasimanov S. The art of hands of the Kazakh people. Almaty: Kazakhstan. 1995r.
2. "What is art?". - Moscow: "Prosveshchenie", 1973.
3. Sannikova O. M. "Creating collections of summer clothes with elements of eco-style" Research work on the Chelyabinsk Youth Intellectual Forum "Step into the Future-Sozvezdiye-NTTM" - Zlatoust, 2012. - 39 C.
4. Kazakh National Encyclopaedia, Vol. 4., A., 2002g
5. Abdigapbarova U. M. "Preparation of students to the use of Kazakh national ornamental art in the education of students" Almaty. 1998

DISCUSSION AS A METHOD OF DEVELOPING FOREIGN LANGUAGE COMMUNICATIVE COMPETENCE OF HIGH SCHOOL STUDENTS

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ABSTRACT

In this article determined the essence and content of communicative competence in teaching a foreign language and studied the psychological and pedagogical features of the development of communicative competence in high school, also considered the specifics of foreign language communication, the basic principles, functions and methods of gaming in the process of developing foreign language communication, clarified the essence of the concept of "discussion" and its main forms.

INTRODUCTION

1. The content of the concept of "communicative competence".

The purpose of the study is to study the theoretical features of the development of foreign language communicative competence based on the method of discussion of high school students.

The goal identified the following tasks:

- to determine the essence and content of communicative competence in teaching a foreign language and to study the psychological and pedagogical features of the development of communicative competence in the senior level;
- consider the definition of the discussion, its main types, determine the stages of the discussion.

The most productive way to develop communicative competence in high school students is to exchange ideas and thoughts in the course of speech interaction. In educational conditions, this can only be done in the process of discussion, discussion, dispute. Discussion is a kind of polemical public speech. It arises when there is a clash of polar points of view on the same problem. However, until now, the content of the concept of "discussion" as a tool for foreign language communicative activity of high school students is practically not defined.

Learning a language, both native and foreign, is a personal need, which manifests itself in social interaction and communication. The success of communication depends not only on the speaker's desire to make contact, but also on the ability to realize the speech intention, which depends on the degree of proficiency in language units and the ability to use them in specific communication situations (while knowledge of individual elements of the language itself cannot be attributed to the concept of "language proficiency as a means of communication"). These conditions of language proficiency constitute the essence of communicative competence, which

has been put forward among the central categories of communicative linguistics and linguodidactics.

The concept of competence for didactics is not new. Philosophers and didactics at all times distinguished between knowledge (competence) and its implementation (activity). With regard to language proficiency, competence means conscious or intuitive knowledge of the language system for constructing grammatically and semantically correct sentences, and implementation means the ability and ability to demonstrate knowledge of the system through speech. This idea of competence was formed under the influence of linguistics, which assigned grammar a leading role in the science of language itself and representing it as the most important component of psychological grammars that govern communication. Thus, F. de Saussure said that the system of language, or a systematic inventory of units, is imprinted as a sum of images in the mind of each member of the collective and does not depend on the methods of its implementation in speech, which is always specific, since it is determined by the will of the individual and the type of situation. Language as a system (*langue*) and language ability, realized through speech (*parole*), provide speech activity, which the scientist called "langage" in the broad sense of the word. Speech activity is diverse and varied. It belongs to both the sphere of the individual and the sphere of the social; It cannot be assigned definitely to any category of phenomena of human life, since it is not known how unity can be communicated to all this. And then F. de Saussure writes that "unity in speech activity brings language" [].

Almost fifty years later, the thoughts of F. de Saussure would be repeated in the works of the American linguist N. Chomsky, who introduced the term "competence" into active scientific use, more precisely, returned it to the conceptual apparatus of linguistics, since this term was found in the works of W. Humboldt and other linguists in connection with the study of the problems of generative / generative grammar. Under the linguistic (in the broad sense of the word) competence, N. Chomsky understood the system of intellectual abilities, the system of knowledge and beliefs that develops in early childhood and, in interaction with many other factors, determines ... Behaviors" []. N. Chomsky singled out within the framework of his mentalist concept the concepts of competence (innate ability to speak - competence) and speech production (real speech product - performance) []. A competent speaker / listener must, according to N. Chomsky, form / understand an unlimited number of sentences on models and have a judgment about the statement. According to N. Chomsky, the generation of speech is a process of consistent implementation of semantic, grammatical and pragmatic rules that are formed in a native speaker on the basis of innate cognitive structures, i.e. there is a kind of universal grammar consisting of a complex of deep structures and explicating the basic properties of the human mind. This idea is developed in the works of A.R. Luria, who drew attention to the two sides of speech activity (encoding and decoding of a speech message) and named the conditions for the psychological process of understanding a speech message - understanding the word, structure and the whole message [].

From the point of view of the theory of speech activity, the components of communicative competence were called competencies in speaking, reading, writing, listening []. These types of competence are formed on the basis of lexical and grammatical competencies that are part of the core of language competence. Competence in speaking is complemented by pronunciation competence, competence in writing - spelling competence, competence in listening - the ability to distinguish sounding signs, competence in reading - the ability to distinguish graphic signs.

In Russian linguodidactics, the term "communicative competence" was introduced into scientific use by M.N. Vyatutnev. He proposed to understand communicative competence as the choice and implementation of speech behavior programs, depending on a person's ability to navigate in a particular communication environment; the ability to classify situations depending on the topic, tasks, communicative attitudes that arise in students before the conversation, as well

as during the conversation in the process of mutual adaptation" []. This ability to select and implement programs of verbal communication and behavior is carried out "against the background of the cultural context" []. and is acquired as a result of 'natural communication or specially organized training' [].

The content of communicative competence, which can be described as a methodologically, psychologically and linguistically coordinated unity of all components, includes the following interrelated, balanced and partly intersecting sections:

a) areas of communicative activity, topics and their intellectual (conceptual) significance for students;

b) situations and programs for their deployment (scenarios of communicative events);

c) social and communicative roles of interlocutors in situations, programs of behavior of each role in accordance with the course of unfolding of communicative events;

d) speech actions, pragmatic goals;

e) communication strategies in situations in the implementation of behavior programs;

f) types of contexts / discourses and the rules for their construction;

g) lists of nominative values;

h) lists of intra-system values; i) lists of language minimums [].

Communicative competence is a linguistically, psychologically and methodically organized system. It achieves the unity of "language-speech" as a means (language) and a way of its implementation (speech). Communicative competence is individual and dynamic. It belongs to the class of intellectual abilities of the individual. The sphere of manifestation of these abilities.

The most detailed description of communicative competence belongs to L. Bachmann. He uses the term "communicative language skills" and identifies the following key competencies:

- language (the implementation of statements is possible only on the basis of acquired knowledge and understanding of the language as a system);

- discourse (coherence, consistency, organization of the meaning of the statement);

-pragmatic (the ability to convey communicative content in accordance with the social context);

- colloquial (on the basis of linguistic and pragmatic competencies to be able to speak coherently, without tension, at a natural pace, without long pauses to search for language forms);

-socio-linguistic (the ability to choose language forms, "... know when to speak, when not; with whom, when, where and in what manner");

-strategic (the ability to use communicative strategies to compensate for the lack of knowledge in the conditions of real language communication);

- speech-thinking (readiness to create communicative content as a result of speech-thinking activity: the interaction of the problem, knowledge and research) [].

As for the definition of the term "communicative competence" in the works of modern linguists and methodologists, then, by and large, there are no significant disagreements in its interpretation. Below we have provided a few definitions for comparison.

E.A. Bystrova believes that communicative competence is the ability and real readiness to communicate adequately to the goals, spheres and situations of communication, readiness for speech interaction and mutual understanding [].

G.M. Andreeva defines communicative competence as the ability to understand and correctly construct different types of text, taking into account the specifics of a particular speech situation [].

According to T.Y. Grigorieva, communicative competence is a set of conscious or unconscious linguistic and extralinguistic knowledge and skills to perform actions and operations in order to understand the perceived or generated oral or written text suitable for understanding [].

In our opinion, the definition of E.A. Bystrova most fully reflects the essence of the concept under consideration, so in our work we will rely on it.

In the methodology of teaching a foreign language, communicative competence is the ability and real readiness to communicate adequately to the goals, spheres and situations of communication, readiness for speech interaction and mutual understanding. Its components, as noted by E. A. Bystrova, are knowledge of speech concepts and communicative skills of the reproductive and productive levels. These are the ability to consciously select language means for communication in accordance with the speech situation; adequately understand oral and written speech and reproduce its content in the required volume, create their own coherent statements of different genre, stylistic and typological affiliation. The formation of communicative skills, as E. A. Bystrova emphasizes, is possible only on the basis of linguistic and linguistic competence. Communicative competence, supported by E. I. Litnevskaya, involves mastering all types of speech activity and the basics of the culture of oral and written speech, basic skills and abilities to use the language in areas and situations of communication that are vital for a given age. M. B.

2. Psychological and pedagogical features of the development of students of high school age.

The problems of age periodization were dealt with by such psychologists as L.S. Vygotsky and A.N. Leontiev, I.S. Kon, L.I. Bozhovich, A.V. Petrovsky. From the point of view of L.S. Vygotsky, the transition from one age to another occurs in a revolutionary way, so there are so-called "crises of age development" - transitional periods from one age period to another. Age-related crises manifest themselves in most cases in the form of disobedience, stubbornness, negativism. In the cultural-historical concept of L.S. Vygotsky, age features are considered as the most typical, most characteristic general features of age, indicating the general direction of development. At one time or another, the development of certain mental processes and properties, psychological qualities of the individual occurs. Therefore, the child at each age stage needs a special approach [].

Thus, for each age there is its own specific "social situation", its own "leading psychological functions" and its own leading activity

The leading activity in high school age is cognition. During this period, the connection between cognitive and learning interests becomes permanent and strong. There is a great selectivity to academic subjects and at the same time - an interest in solving the most common cognitive problems and in clarifying their ideological and moral value. There is a need to understand oneself and the environment, to find the meaning of what is happening and one's own existence. Therefore, students of this age rarely listen to the teacher indifferently. They either stop listening altogether if they're not interested, or they listen emotionally, intensely [].

Thus, in high school, the thinking of students acquires a personal emotional character. It is these features of thinking that determine the choice of fiction with which work is done in a foreign language lesson.

At this time, as noted above, there is a change in the nature of motives. In the first place, motives related to the life plans of students, with their professional self-determination, are put forward. The motives of senior schoolchildren are characterized by the presence of leading, valuable motives for the individual. Increasingly, the senior student begins to be guided in his activities by a consciously set goal, there is a desire to deepen knowledge in a certain area, there is a desire for self-education.

The central psychological process in adolescent self-consciousness is the formation of personal identity, a sense of individual self-identity, continuity and unity [].

This is important for the teacher, because in a foreign language lesson for a high school student, it is necessary to experience this sense of "continuity and unity" with the class through foreign language communication.

In early adolescence, a person as a whole has a need for communication:

- intensive physical and mental development leads to an increase in interest in the world and activities;
- the need for new experience, knowledge and security is increasing: comfortable communication with people, the need for acceptance and recognition.

Communication with peers is extremely important for the development of personality at this age for the following reasons.

First, communication with peers is a specific channel of information through which relevant knowledge comes, which is not supplied by parents.

Secondly, it is a specific type of interpersonal relationship, where the necessary skills of social interaction are formed in joint activities (play, communication, work). High school students learn to defend their rights, to be aware of responsibilities, to correlate personal interests with public ones. Outside the society of peers, where relationships are fundamentally built "on an equal footing" and status must be earned, a person fails to develop certain "adult" qualities. [].

At this age, schoolchildren easily enter into an argument, tend to contradict, defend their point of view. Thus, in general, this period is favorable for the development of the ability to communicate, for the development of dialogical speech and communicativeness of the student. However, this applies only to interpersonal communication in the native language. With regard to the foreign language being studied, the situation is somewhat more complicated. The reason for this lies in the fact that the specificity of age, combined with an insufficient number of school hours, leads to the appearance in the group of children who are rather closed, not inclined to communicate in a foreign language. And also high school students lose interest in learning a foreign language, especially if this subject is beyond their future professional interests [].

CONCLUSION

Thus, it can be concluded that the discussion is highly effective for consolidating information, creative understanding of the material studied, the formation of value orientation, as well as the formation of a number of communicative skills [].

Summing up our work, we can conclude that there are many advantages in using discussion as a method of developing communication skills and it has a number of advantages over ordinary conversation. I would also like to note that discussion is a method of teaching in a group, and group learning is the basis of problem-based learning, the purpose of which is to make each student individually stronger in his own position, to develop certain communicative qualities of the individual. Group members learn together what they can later use individually [].

LIST OF REFERENCES

- 1 Kunanbaeva S.S., Karamysova M.K., Ivanova A.M. Concept of development foreign language education. Almaty, 2004.
- 2 State Program for the Functioning and Development of Languages for 2011-2020 years. <http://www.inform.kz/rus/article/2290539>.
- 3 Barkanova O.V. Active socio-psychological training. Part I: Discussions // Litera-print. 2008. — 175 p.
- 4 Grigorieva E.Y. Features of teaching speaking and discussion in French lessons in grades VIII-IX // IYASH - 2007, - No. 5, - p. 34—38.

5 Panina T.S. Modern ways of activating learning: A textbook for students. higher. Studies. institutions / T.S. Panina, L.N. Vavilova; Ed. T.S. Panina. – M.: Publishing Center "Academy", 2006. — 176 p.

6 Kharlamova M.V. Methodological aspects of a successful discussion in a foreign language lesson // IYASH – 2007, – No. 12, – p. 23–27.

7 Valiakhmetova A.R. Discussion as a method for the formation of communicative skills in senior classes of secondary school // Scientific community of students of the XXI century. Humanities: Collection of Articles on Mathematics. XXXII International. Stud. Scientific-Practical Conf. № 5(32).

8 Zinchenko Y.R., Methodology of Political Discourse Research: Actual Problems of Content Analysis of Socio-Political Texts. Vol. 5/ under the general editorship of I.F. Ukhvanova-Shmygova – Minsk: Izd. BSU Center, 2008. – 251 p.

9 Kolker Y.M., Practical methods of teaching a foreign language: Textbook. A manual for students. Philol. Fak. higher. Ped. Studies. / Y.M. Kolker, E.S. Ustinova, T.M. Enalieva. – M.: izd. Center "Academy", 2004. – 264 p.

10 Konyshcheva A.V., Modern methods of teaching English / A.V. Konyshcheva. – 3rd ed. – Minsk: TetraSystems, 2005. – 176 p.

Intercultural Competence in Education: Preparing Students for a Diverse and Globalized World

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ABSTRACT

This article explores the globalization of multicultural education and how it's becoming more important in today's diverse world. As our world gets more connected, multicultural education has changed from just being in certain areas to being essential everywhere. People, ideas, and cultures are moving around the world quickly, creating multicultural societies in many places. This means that multicultural education is now relevant and needed in classrooms all over the world.

INTRODUCTION

As the world becomes increasingly interconnected, multicultural education has evolved from a localized approach to a globalized solution (1).

As globalization continues to shape the social and economic landscape, diverse societies are becoming the norm rather than the exception. However, this interconnectedness has also brought to light various challenges related to cultural understanding, social cohesion, and the need for equitable education. In such a context, the traditional localized approach to multicultural education may no longer suffice to prepare students for a world characterized by diverse perspectives and global complexities (2).

The rapid movement of people across borders, driven by migration, globalization of the job market, and other factors, has resulted in multicultural societies with unique cultural, linguistic, and religious diversities. As a consequence, classrooms are increasingly becoming microcosms of the globalized world, where students from various backgrounds interact and learn together (3). While this diversity offers rich opportunities for learning and growth, it also poses challenges related to intercultural communication, social harmony, and equitable access to education.

Moreover, in a globalized world, students need to develop intercultural competence to navigate the complexities of cross-cultural interactions and collaborations (4). Lack of exposure to diverse perspectives and experiences can lead to misunderstandings, stereotypes, and biases, hindering the development of empathetic global citizens who can contribute positively to a diverse society.

With the rapid movement of people, ideas, and cultures across borders, educators must adapt their teaching practices to foster inclusivity and intercultural competence. Educators must adapt their teaching practices to foster inclusivity, promote intercultural competence, and prepare students for active engagement in a diverse and interconnected world (5). This article explores the globalization of multicultural education, its significance in today's diverse world, and

the impact it has on promoting understanding and respect among students from different backgrounds.

THE GLOBALIZATION OF MULTICULTURAL EDUCATION:

Multicultural education, once a localized approach to promoting diversity within specific communities, has now expanded its reach to become a globalized imperative. The phenomenon of globalization has been a significant driving force behind this evolution. As the world becomes increasingly interconnected, cultures, ideas, and people traverse borders, leading to the blending of diverse societies and the emergence of multicultural communities worldwide. Consequently, the importance of multicultural education has expanded beyond local contexts, making it relevant and necessary in classrooms across the globe.

Globalization has played a role in shaping the landscape of multicultural education. According to data from the United Nations, the number of international migrants reached 281 million in 2020, a significant increase from 173 million in 2000 (6). This surge in global migration has resulted in multicultural societies being formed in many countries, with individuals from diverse cultural backgrounds interacting on a daily basis. In such diverse environments, it is essential for educators to embrace multicultural education to foster understanding, respect, and inclusivity among students from different cultural backgrounds.

The blending of cultures and the global movement of people have also led to the adoption of multicultural education practices in regions beyond their place of origin. For instance, in the United States, the National Center for Education Statistics reported that in the 2019-2020 school year, approximately 5.3 million students were English language learners (ELLs), representing 9.9% of all students enrolled in public schools (7). This demographic shift highlights the increasing need for educators to integrate multicultural education strategies to support ELLs and create culturally responsive learning environments.

Multicultural education goes beyond merely acknowledging the presence of diverse cultures; it seeks to promote intercultural competence among students. According to a study published in the *Journal of Studies in International Education*, students who engage in multicultural education exhibit higher levels of cultural awareness, empathy, and open-mindedness towards others. This research emphasizes the positive impact that globalized multicultural education can have on developing students' abilities to navigate cross-cultural interactions with sensitivity and respect.

Incorporating multicultural education into classrooms has also been shown to have positive effects on academic achievement and social integration. According to a report by the Migration Policy Institute, schools that adopt culturally responsive teaching practices and create inclusive learning environments see improved academic outcomes and reduced disparities among diverse student populations (8). This data underscores the significance of embracing multicultural education to address educational inequities and promote positive outcomes for all students, regardless of their cultural backgrounds.

The globalization of multicultural education is an essential response to the changing dynamics of our interconnected world. With the movement of people and cultures across borders, multicultural education has evolved into a globalized imperative. Educators must recognize the significance of multicultural education in promoting inclusivity, fostering intercultural

competence, and addressing educational disparities. By embracing multicultural education, educators can create learning environments that celebrate diversity, cultivate empathy, and prepare students to become active global citizens capable of embracing and contributing to a harmonious and interconnected world (9).

THE SIGNIFICANCE OF MULTICULTURAL EDUCATION IN A DIVERSE WORLD:

Promoting Inclusivity: Multicultural education promotes inclusivity by acknowledging and respecting the cultural, linguistic, and religious diversity present in classrooms. It encourages students from all backgrounds to feel valued and embraced, fostering a sense of belonging (10). Multicultural education serves as a powerful tool in promoting inclusivity within diverse classrooms by recognizing and appreciating the cultural, linguistic, and religious diversity present among students. By acknowledging and respecting the unique identities of each individual, multicultural education creates an environment where students from all backgrounds feel valued and embraced, fostering a profound sense of belonging. One of the key aspects of promoting inclusivity through multicultural education is the recognition of cultural diversity. According to data from UNESCO, cultural diversity encompasses various dimensions, including ethnicity, language, traditions, and customs (11). Multicultural education encourages educators to acknowledge and celebrate these diverse elements, ensuring that no culture is marginalized or overlooked in the learning process.

Fostering Intercultural Competence: With the globalization of economies and societies, individuals must possess intercultural competence – the ability to communicate and collaborate effectively with people from different cultural backgrounds. Multicultural education equips students with these essential skills, preparing them for success in a globalized world. Multicultural education also encourages students to engage in dialogue and collaboration with peers from diverse cultural backgrounds. Group projects, discussions, and cooperative learning activities provide opportunities for students to interact and learn from one another, fostering a sense of community and mutual understanding. Research has shown that students who engage in multicultural education demonstrate higher levels of intercultural competence. A study published in the *Journal of Intercultural Communication Research* found that students exposed to multicultural education exhibited greater cultural empathy, open-mindedness, and adaptability (12). These attributes are vital for navigating cross-cultural situations and building meaningful relationships in a globalized world.

Challenging Stereotypes and Biases: By incorporating diverse perspectives and histories, multicultural education challenges stereotypes and biases, enabling students to develop a more nuanced and accurate understanding of various cultures and communities. Research has shown that multicultural education can be effective in challenging stereotypes and biases among students. A study published in the *Journal of Diversity in Higher Education* found that students exposed to multicultural education demonstrated reduced levels of racial and ethnic prejudice (13). By promoting empathy and cultural understanding, multicultural education helps students appreciate the uniqueness and value of each individual, irrespective of their cultural background.

CONCLUSION

This academic paper examined the topic of Impact of Globalized Multicultural Education. There are key factors that are relevant to conclude.

Improved Student Engagement: Incorporating global perspectives into the curriculum enhances student engagement by making learning relevant and relatable to their lives in an interconnected world.

Cultivation of Empathy: Exposure to diverse cultures and experiences fosters empathy and understanding among students, promoting a culture of kindness and respect.

Preparation for the Global Workforce: In today's world where the economy is connected all around the globe, companies really want employees who can work well with people from different cultures and appreciate the differences between them. These employees with intercultural competence are in high demand because they can help businesses succeed in the global market. Globalized multicultural education equips students with these skills, making them more competitive in the job market.

Social Cohesion: Globalized multicultural education plays a vital role in building social cohesion in diverse societies. By facilitating dialogue and promoting cross-cultural understanding, it helps reduce social tensions and conflicts.

The globalization of multicultural education is an essential response to the changing dynamics of our world. As societies become more diverse and interconnected, educators must embrace this globalized approach to create inclusive learning environments that celebrate cultural differences and promote intercultural understanding. By fostering empathy, challenging stereotypes, and preparing students for the global workforce, globalized multicultural education contributes to building a more harmonious and equitable world for future generations.

REFERENCES

1. Ramirez, F. O., & Meyer, J. W. (2012). Toward post-national societies and global citizenship. *Multicultural Education Review*, 4(1), 1-28.
2. Morrow, R. A., & Torres, C. A. (2013). The state, globalization, and educational policy. In *Globalization and education* (pp. 27-56). Routledge.
3. Mansouri, F., & Jenkins, L. (2010). Schools as sites of race relations and intercultural tension. *Australian Journal of Teacher Education (Online)*, 35(7), 93-108.
4. Rayxonabonu, A. (2023). NOTIONS OF CULTURE, CROSS-CULTURAL AWARENESS AND INTERCULTURAL COMPETENCE. *Журнал: Союз Науки и Образования*, 5(2), 7-11.
5. Pope, R. L., Reynolds, A. L., & Mueller, J. A. (2019). *Multicultural competence in student affairs: Advancing social justice and inclusion*. John Wiley & Sons.
6. United Nations Department of Economic and Social Affairs. (2020). *International Migration Report 2019: Highlights*. UN. Retrieved from <https://www.un.org/en/desa/international-migration-2020-highlights>
7. National Center for Education Statistics. (2021). *English Language Learners in Public Schools*. Retrieved from <https://nces.ed.gov/fastfacts/display.asp?id=96>
8. Fix, M., & Passel, J. S. (2003). US Immigration: Trends and Implications for Schools. Retrieved from <https://www.migrationpolicy.org/research/us-immigrant-children-and-families-demographics-trends-and-issues>
9. Gromlich, M. D., Wiens, P. D., & Whitesides, H. (2023). Embracing Multicultural Education: How Preservice Mathematics Teachers' Attitudes Towards Multicultural Pedagogies Differ From Their Non-Mathematics Peers. *Embracing*

Multicultural Education: How Preservice Mathematics Teachers' Attitudes Towards Multicultural Pedagogies Differ From Their Non-Mathematics Peers, 12(3), 1425-1435.

10. Florian, L., Rose, R., & Tilstone, C. (Eds.). (2002). *Promoting inclusive practice*. Routledge.

11. UNESCO. (2001). Universal Declaration on Cultural Diversity. Retrieved from <https://unesdoc.unesco.org/ark:/48223/pf0000121965>

12. Paige, R. M., Jacobs-Cassuto, M., Yershova, Y. A., & DeJaeghere, J. (2003). Assessing intercultural sensitivity: An empirical analysis of the Hammer and Bennett Intercultural Development Inventory. *International journal of intercultural relations*, 27(4), 467-486.

13. Gurin, P., Dey, E., Hurtado, S., & Gurin, G. (2002). Diversity and higher education: Theory and impact on educational outcomes. *Harvard educational review*, 72(3), 330-367.

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RESULTS OF THE SCREENING PROGRAM FOR EARLY DETECTION OF BREAST CANCER IN THE REPUBLIC OF KAZAKHSTAN

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Annotation: The article deals with the epidemiological and organizational aspects of early diagnosis of breast cancer, based on its secondary prevention using a population method of active detection of this pathology in clinically asymptomatic individuals - screening. A detailed algorithm for the preventive examination of the female population is presented and the results of mammographic screening in a regional context are presented. It has been shown that the use of mammography based on the use of low-dose X-ray radiation allows a differentiated approach to diagnosis, development of management tactics and targeted treatment of these patients.

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.

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).

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 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.
- 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 Kopans D.B. Recommendations for breast cancer screening. *Lancet Oncol.* 2020 Nov;21(11):e513. doi: 10.1016/S1470-2045(20)30529-5.
- 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 Abdollell, 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, podlezhashhih skringovym issledovaniyam, a takzhe pravil, ob#ema i periodichnosti provedenija dannyh issledovaniy». - Paragraf 6. Porjadok provedenija skringovogo issledovaniya na rannee vyjavlenie raka molochnoj zhelezy (In Russ.).

Clinicoepidemiological Findings and Complication Management in Preterm Birth

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Background:

Preterm labor is defined as the onset of labor before 37 weeks gestation and is a clinical symptom accompanied by many pathogenic causes. The etiology is multifactorial and complex. This is not normal premature birth, but an independent syndrome with specific characteristics(1,2). Sometimes the mother, placenta, and fetus are involved to varying degrees. The exact mechanism is unknown. Uterine contractions that cause preterm labor are coordinated uterine contractions that cause a gradual change (removal and/or dilation) of the cervix before 37 weeks gestation. Preterm labor, on the other hand, is a rhythmic contraction of the uterus that does not cause any changes in the cervix.(3,4,5) In 1948, the World Health Organization (WHO) defined prematurity as the birth of a newborn weighing less than 2500 g. The main problem that emerged was that

many newborns with heterogeneous fetal development were labeled as preterm. Thus, in 1960, Battaglia and Lubchenco used measurements on a large population of newborns to establish principles of fetal development. Preterm birth, based on birth weight, is subdivided into “low birth weight” < 2500 g, “low birth weight” < 1500 g (approx. 1–1.5% of newborns), and “extremely low birth weight” < 1000 g (this category includes 0.7% of all live births). A preterm baby is a baby born less than 37 weeks gestational age. A very preterm baby is a baby born at a lower gestational age at 32 weeks gestation. Preterm birth is subdivided into automatic preterm birth due to preterm labor, with an incidence of 35% of unknown etiology, 25% of cases due to premature rupture of membranes, and 25% of cases iatrogenic as a medical or obstetric consequence such as B. an illness of the mother. arterial hypertension or pathology of fetal development and bleeding during pregnancy, while in multiple pregnancies the incidence is 15% (6,7,8,9,10,11,12).

1. Epidemiology:

Global incidence we estimate that 9.6% of all births were preterm in 2005, which translates to about 12.9 million births definable as preterm.

Approximately 85% of this burden was concentrated in Africa and Asia, where 10.9 million births were preterm. About 0.5 million Preterm births occurred in Europe and the same number in North America, while 0.9 million occurred in Latin America and the Caribbean.(13)

The highest rates occurred in Africa and North America, where 11.9% and 10.6%, respectively, of the births were Preterm. Europe, where 6.2% of the Births were preterm, had the lowest rate.

We identified 1241 data points across 107 countries. The estimated global preterm birth rate for 2014 was 10.6% (uncertainty interval 9.0–12.0), equating to an estimated 14.84 million (12.65 million–16.73 million) live Preterm births in 2014. 12.0 million (81.1%) of these preterm births occurred in Asia and sub-Saharan Africa. Regional preterm birth rates for 2014 ranged from 13.4% (6.3–30.9) in North Africa to 8.7% (6.3–13.3) in Europe. India, China, Nigeria, Bangladesh, and Indonesia accounted for 57.9 million (41.4%) of 139.9 million live births and 6.6 million (44.6%) of preterm births globally in 2014. Of the 38 countries with high-quality data, preterm birth rates have increased since 2000 in 26 countries and decreased in 12 countries. Globally, we estimated that the preterm birth rate was 9.8% (8.3–10.9) in 2000, and 10.6% (9.0–12.0) in 2014(14).

2. Maternal causes and conditions in pregnancy related to preterm birth:

i. Maternal age:

Maternal age (under 19 years or over 35 years) is associated with an increased incidence of preterm birth.(15,16,17,18). However, the risk may not be due to age itself, but to age-related factors. Young women suffer from vaginitis more often than older women, who may have other health problems such as fibroids, hypertension, and metabolic diseases. In addition, women with a pre-pregnancy weight of less than 50 kg and a height of less than 150 cm have a higher preterm birth rate. Thus, chronological age is not a factor independent of gestational age, but the increased risk reflects characteristics of advanced maternal age. Due to the increasing number of pregnant women who only had their first pregnancy at an advanced age, preterm birth in women over 35 years of age is of great importance(19,20,21,22,23,24).

ii. Burdened obstetric history:

Having a positive obstetric history appears to be directly related to the incidence of preterm birth. Miscarriages, especially in the second trimester, a history of preterm birth, and stillbirth increase the risk of preterm delivery in later pregnancies. Having a low birth weight or a history of preterm birth is one of the most important factors influencing your upcoming preterm birth. The literature reports a relative risk of 34% for a history of preterm birth and an even higher risk for a third birth,

even when both preterm births were preterm. Racial differences have been observed in the association between first and second preterm birth, while a history of preterm birth is an important risk factor for premature rupture of membranes. The number of pregnancies does not seem to affect the likelihood of preterm birth, as different studies come to conflicting conclusions. It is generally accepted that firstborns weigh, on average, less than their offspring at any gestational age. The explanation for the reported data is unknown. Fetal development may be more restricted in women with firstborns than in women with multiple pregnancies because of the anatomy of the muscular walls of the uterus. There is an increased risk of preterm birth compared to the short distance between two pregnancies, but the results are not statistically significant. It is therefore not clear whether there is a link between short birth intervals and preterm birth (25,26,27,28,29,30).

iii. Previous induced abortions:

The contribution of abortions to the increased risk of premature birth depends on the type of abortion, the degree of dilation of the cervix, the gestational age, and the number of abortions (31,32,33,34,35,36).

iv. History of infertility:

In women undergoing assisted reproductive therapy in singleton pregnancies, the percentage of preterm births is 10-20%. This increase is due to pre-existing reproductive disorders, an increased incidence of multiple pregnancies, and an increasing number of cesarean sections performed before 37 weeks gestation.

v. Disease condition in mother (Various diseases of the mother):

Maternal medical conditions related to pregnancy (e.g., preeclampsia and eclampsia) or unrelated to pregnancy (chronic kidney disease, anemia, chronic hypertension, respiratory failure, etc.) are a common cause of preterm or low birth weight babies. Most of these diseases cause poor blood flow to the placenta, leading to fetal development problems and low body weight. The most well-known endocrine disorders associated with an increase in preterm births are also diabetes mellitus and hyperthyroidism (37,38,39,40,41).

vi. Addiction (Smoking and alcohol):

Smoking appears to be responsible for the increased incidence of preterm birth, placental abruption, and perinatal mortality. This effect of smoking is attributed to increased anthracyclomoglobin and the effects of nicotine. In addition, various toxins, also called cyanides, reduce vitamin B12 levels and cause metabolic disorders. Anthracycline hemoglobin falls from 1.2% to 4.1% and reduces the amount of oxygen available for fetal oxygenation, while nicotine increases adrenaline secretion and causes vasoconstriction, further reducing fetal oxygenation. In addition to being linked to preterm birth, alcohol abuse is also associated with an increased risk of brain damage in preterm infants (42,43,44,45,46,47).

vii. Medical monitoring:

Insufficient medical supervision, which manifests itself in a delayed first visit to a pregnant woman and a limited number of visits, directly affects the increase in preterm births. This is confirmed by the increase in the proportion of preterm births among pregnant women, especially pregnant teenagers, who are not under constant medical care within the framework of free medical care.

viii. Surgical diseases during pregnancy:

Acute surgical abdominal conditions such as acute appendicitis are associated with an increased rate of preterm birth due to the action of bacterial endotoxins.

ix. Uterine congenital abnormalities and diseases:

Congenital malformations of the uterus, defined as anatomical, are responsible for a small percentage of preterm births. They are most common in the double uterus, unicorn, duodenum, and hypoplasia of the uterus, where the miscarriage rate is almost 30% and the risk of preterm

delivery reaches 20% if the pregnancy lasts more than 20 weeks of gestation. There is also an association with prematurity and uterine fibroids, endometrial adhesions, and idiopathic myometrial activity.

x. Insufficiency of internal cervical:

The uterus and cervix arise at the junction of the Müllerian ducts. The cervix is composed of extracellular connective tissue and collagen fibers of types I, III, and IV. The proportion of smooth muscle fibers is 10-15%. The proportion of muscle and fiber components varies from 29% in the inner part of the cervix to 6% in the outer part of the cervix. Other components of the cervix include glycosaminoglycans, proteoglycans, fibronectin, and elastin. Before and during labor, the number of ligaments between collagen fibers decreases, and the concentration of hyaluronic acid increases, which leads to the removal and dilation of the cervix and uterine contractions. Internal cervical insufficiency is a fairly common cause of preterm birth. A history of conical resection of the cervix is also responsible for the increased incidence of preterm birth, which occurs at a rate of 14% in the first pregnancy and quadruple in the subsequent ones (48,49,50,51,52,53).

xi. Maternal infections:

Vaginitis and cervicitis caused by anaerobic organisms, trichomonas, chlamydia, gonococci, and group B streptococci usually result in preterm birth, premature rupture of membranes, and low birth weight babies. Through preventive examinations in early pregnancy, such as B. Culture of vaginal secretions and treatment if the positive result, we reduce the possibility of premature birth. Subclinical chorioamnionitis may predispose to preterm birth. However, infection is associated with less than 20% of uncomplicated preterm births. The most common link between infection and preterm birth is bacterial vaginosis. An imbalance of nitric acid and prostaglandins in the myometrium can cause premature contractions and, as a result, childbirth. The vagina is normally colonized by various microorganisms, many of which are flora while others are potentially pathogenic. It is unclear whether the bacterial flora itself acts as a trigger for preterm labor or whether it only becomes secondary when the cervix can no longer fulfill its protection against incurable infections. Ascending infection is one of the most important mechanisms leading to preterm birth. An infection can act as a trigger, since an open cervix in late pregnancy is more likely to lead to premature labor or if the cervix opens prematurely. The degree of cervical dilation affects the risk of ascending infection. Infection that occurs with intact embryonic membranes reduces infection by vaginal and cervical flora. The incidence of amniotic fluid infection varies with gestational age at birth. It is particularly high in very preterm infants and gradually decreases from 30 to 34 weeks of gestation and remains stable until the end of pregnancy (54,55,56,57,58,59).

xii. Infection of the lower urinary tract:

The reason for the high incidence of infections - inflammation of the amniotic fluid and mucous membranes - is unclear in very early pregnancies under 26 weeks and even under 30 weeks. Studies on the flora are incomplete from the beginning to the 23rd week of pregnancy, while they show a rather stable vaginal flora from the 23rd to the end. The cervix begins to change its composition and mature between the 20th and 26th week under the influence of biochemical changes (prostaglandins and interleukins) and uterine contractions. Cervical changes increase exposure to bacteria residing in the upper cervix, lower uterus, and amniotic membranes, leading to increased infection of the amniotic fluid and amniotic membranes, the most vulnerable barrier between the fetus and the environment.

3. Preterm birth-related causes and diseases of neonatal babies :

i. Multiple pregnancies:

Multiple pregnancies have an increased risk of premature birth due to the continuous expansion of the uterus and the occurrence of preterm labor. If the average gestation period is 280.5 days, it is 261 days for twins and 247 days for triplets. (60,61,62,63).

ii. Congenital fetal abnormalities:

The increased rate of preterm births due to uterine distension is due to polyamines and hydronia in particular. A third of pregnancies with polyamines result in premature birth. The main causes of polyanionic are congenital malformations of the fetal nervous and digestive systems, intestinal obstruction, septal hernia, Potter's syndrome, skeletal deformities (amniotic bands <24 weeks), chromosomal abnormalities, and infections. Specifically, polyhydramnios is associated with congenital anomalies of the fetal nervous system, such as aneurysm (caused by polyhydramnios), renal agenesis (caused by oligamnio) associated with pulmonary hypoplasia, and endogenous metabolic disorders, some of which are causative factors. the premature birth(64,65,66,67,68).

iii. Abnormalities of the placenta and umbilicus:

Abnormalities in the morphology, implantation, and function of the placenta can often lead to preterm birth. Placentas with a membranous bulge of the umbilical cord are more likely to have a premature onset of labor. The precursor placenta is also an important factor in preterm birth. It is characteristic that it occurs more often in premature births than in normal ones. Premature placenta abruption is even more common in preterm labor than in normal labor.

iv. Breech fetal presentation:

Breech presentation of the fetus in the first trimester of pregnancy has an incidence of 20% compared to all pregnancies and only 2% of this percentage leads to premature birth. However, sciatic projection is associated with increased perinatal mortality as well as placental abnormalities thus increasing the likelihood of preterm delivery.

v. Premature rupture of membranes:

Spontaneous rupture of fetal membranes (s-PROM) before the end of 37 weeks and 1 hour before the onset of labor covers 14.3% of all preterm births. It is distinguished by the term premature rupture of membranes (t-PROM) which is defined as rupture of membranes after the 37th week of pregnancy and has an incidence of 3% and is responsible for 40% of preterm births. Its incidence is 10–15% of pregnancies. Findings observed are contractions (4 per 20 min or 8 per 60 min) and cervical Dilation >2 cm and/or cervical effacement >80%. It is associated with complications related to the outcome of pregnancy and perinatal outcomes, increasing the chance of premature birth and neonatal morbidity and mortality to 1–2%.

The incidence rates are 6% - 10% <37 weeks, 1.5% <32 weeks, 0.5% <28 weeks. Often there is no obvious predisposing factor. The main causes of PROM are malnutrition, vaginitis, cervical insufficiency, and abnormalities of the uterus. Pregnancy usually precedes the same episode. The diagnosis of PROM is based on the history of the pregnant woman where discharge from the vagina is reported. The differential diagnosis from other conditions (alkaline urine, inflammation) is usually made by direct examination of the cervical spine and by testing the sunflower map. The complications of PROM, in addition to those of prematurity, include inflammation of the mother and the fetal placenta, as well as umbilical cord prolapse, which implies significant perinatal morbidity and mortality [45–50]. Babies Born with symptoms of sepsis are 4 times more likely to have neonatal mortality than those who do not. In addition, there are risks for the mother from the complications of possible chorioamnionitis.

vi. Fetal gender:

It has been long noticed that female fetuses have better perinatal survival than male fetuses. A study analyzing the relationship between fetal gender and preterm births confirmed this stating that male fetuses are at an increased risk of being born preterm than female fetuses, in both singleton and twin pregnancies (CooperStock and Campbell, 1996). This finding was consistent with other studies on the subject, with male babies at higher risk of being delivered at earlier gestations than female babies, 4.4% versus 4.0%.

4. Pathophysiology of preterm labor:

Progesterone is the key hormone that supports pregnancy. The numerous effects of progesterone can be demonstrated in laboratory studies on all tissues of the reproductive system, myometrium, decidua, cervix, and amniotic membranes. In particular, progesterone may impair cytokine response, inhibit prostaglandin and nitric oxide synthesis, reduce hormone (CRH) synthesis, block cervical stromal rupture, and induce cervical stromal matrix protein secretion. By altering both the mechanical and physiological functions of the cervix, these factors can significantly improve cervical performance. Presumably, progesterone may alter the rate of cervical stromal rupture by affecting matrix metalloprotease secretion, reducing prostaglandin and nitric oxide synthesis, and minimizing neutrophil recruitment. The diverse etiology of preterm birth makes predictions difficult. A significant proportion of unexplained preterm births are due to a maternal immune response harmful to the fetus. A growing body of evidence suggests that progesterone can play an important role in creating the right immune environment in the early stages of pregnancy. In the presence of progesterone, lymphocytes of pregnant women release a protein called progesterone-inducible blocking factor (PIAF)⁷, which mediates the immune-modulatory and anti-miscarriage effects of progesterone. The immunological recognition of pregnancy and the subsequent activation of the maternal immune system leads to an upregulation of progesterone receptors on activated lymphocytes between placental cells and CD8⁺ cells. In the presence of sufficient amounts of progesterone, these cells synthesize GDPF. Patients at risk of preterm delivery showed elevated pro-inflammatory cytokines, low GDP, and reduced IL-10 expression in lymphocytes. PIAF alters the pattern of cytokine secretion by activating lymphocytes by shifting the balance toward Th2 dominance. During a normal, uncomplicated pregnancy, PIAF levels increase steadily from 7 to 37 weeks of gestation. After the 41st week of pregnancy, the concentration of PIAF drops dramatically. Studies have shown that in patients diagnosed with preterm labor, PIAF levels do not increase during pregnancy. Identifying women who are at risk of preterm labor would be key to preventing this. So far, however, no sufficiently specific marker has been found. The diverse etiology of prematurity makes its prediction difficult. In this special issue, you will find useful information, but also important questions for understanding the pathophysiology, prevention, diagnosis, and treatment of preterm birth⁽⁶⁹⁾.

5. Types of Preterm Birth and its Complications:

A. Neonatal Respiratory Distress Syndrome:



Figure No.1 Neonatal Respiratory Distress Syndrome

i. Definition:

Respiratory distress in infants is defined as one or more signs of increased work of breathing, such as tachypnea, nasal flaring, chest retractions, or grunting.(70) A newborn usually breathes between 30 and 60 times per minute(71).

ii. Sign symptoms:

Tachypnea, nasal flaring, chest retractions, or grunting are just a few of the indicators of increased work of breathing that indicate respiratory distress in newborns. The average newborn breathes between 30 and 60 times per minute. A respiratory rate of more than 60 breaths per minute is considered tachypnea. Tachypnea is a frequent but non-specific sign in a wide range of respiratory, cardiovascular, metabolic, or systemic disorders because it is a compensatory mechanism for hypercarbia, hypoxemia, or acidosis (both metabolic and respiratory). Tachypnea may be caused by pulmonary illness, particularly in newborns(72).

iii. Etiology:

Newborn respiratory distress syndrome (RDS) is caused by an inability to produce enough surfactant or by the inactivation of surfactant in the presence of immature lungs. Both of these variables are impacted by prematurity, which directly contributes to RDS(73).

iv. Pathophysiology:

The main contributing element to the emergence of RDS is surfactant deficit. An imbalance between ventilation and perfusion is caused by surfactant deficit. A compliant chest wall and inadequate surfactant synthesis or release inside small respiratory units cause the alveoli to be perfused but not vented, which causes hypoxia and atelectasis. Physiologic dead space, tiny tidal volumes, greater work of breathing, lower lung compliance, and poorly ventilated alveoli(74).

B. Neonatal jaundice:



Figure No: 2 Neonatal Jaundice

i. Definition:

Neonatal jaundice refers to any conditions in which the serum bilirubin level is high enough to cause at least slightly visible yellowing of the skin, sclerae of the eyes, or both(75).

ii. Signs&symptoms:

Jaundice occurs within the first 24 hours of life.

Light, chalky stool and dark urine(76).

iii. Etiology:

Jaundice is the most common abnormal physical symptom in the first week of life. Clinical jaundice develops in 25 to 50% of all term infants and a higher proportion of preterm infants. Jaundice is manifested by a serum bilirubin concentration of 5 mg/dL, followed by a cranial-caudal

progression of increasing intensity. Physiological jaundice is the most common cause of hyperbilirubinemia in newborns. About 5% of newborns develop pathologic jaundice(77).

iv. Pathophysiology:

The normal destruction of circulating RBCs accounts for 75% of an infant's daily bilirubin production. Aging red blood cells are cleared and destroyed in the reticuloendothelial system where hemoglobin is catabolized and converted to bilirubin. The remainder is due to ineffective erythropoiesis and the destruction of immature red blood cell progenitors in the bone marrow or shortly after release into the circulation(78).

C. Meconium aspiration:



Figure No: 3 Meconium Aspiration

i. Definition:

The definition of meconium aspiration syndrome (MAS) includes shortness of breath in infants with meconium stains, consistent radiographic findings (eg, a gross, irregular pattern of increased density in the lungs), and symptoms that cannot be otherwise explained(79).

ii. Signs and symptoms:

Clinical signs and symptoms of SAM include foamy yellow-green oral discharge; very rapid breathing; intercostal retractions; Cyanosis; overly bloated chest due to air pockets; lines; and sore throat(80).

iii. Etiology:

MAS is caused by the aspiration of meconium amniotic fluid. MASF is not a rare finding and is not always associated with MAS.[3] Uterine stress due to hypoxia or infection can result in premature passage of meconium. Unlike infant stool, meconium is darker and thicker. It arises from the accumulation of fetal cell debris (skin, gastrointestinal tract, hair) and secretions.[4] Aspiration of these materials causes airway obstruction, causes inflammation, and inactivates the surfactant(81).

iv. Pathophysiology:

The pathophysiologic mechanisms of hypoxemia in MAS include (a) acute airway obstruction, (b) surfactant dysfunction or inactivation, (c) chemical pneumonitis with the release of vasoconstrictive and inflammatory mediators, and (d) PPHN with right-to-left extrapulmonary shunting. The common disturbances of lung function in MAS include hypoxemia and decreased lung compliance. Poor oxygenation is attributed to a combination of ventilation-perfusion mismatching, intrapulmonary shunting related to regional atelectasis, and extrapulmonary shunting related to PPHN(81).

Conclusion:

Infant survival and health are improved when women are given antenatal corticosteroids before preterm birth. It is uncertain, though, whether dexamethasone or betamethasone leads to

superior maternal, neonatal, and pediatric health outcomes. Additionally, we wanted to determine whether dexamethasone, as opposed to betamethasone, had any positive effects on children's body size, blood pressure, behavior, or general health. PIH can potentially cause fetal difficulties such as intrauterine growth restriction (low fetal growth) and stillbirth, women who have PIH need more attention than other pregnant women. Severe PIH can result in life-threatening seizures and possibly death for the mother and fetus if left untreated. Due to these dangers, it can be essential to deliver the child before 37 weeks of pregnancy. Women's Vitamin K deficiency can cause life-threatening bleeding in babies and young children. Due to inadequate amounts of this crucial vitamin, bleeding can be prevented by vitamin K administered at birth.

List Of Abbreviations

ABBREVIATIONS	
NICU	Neonatal Intensive Care Unit
WHO	World Health Organization
PROM	Premature Rupture Of Membrane
CRH	Corticotropin- Releasing Hormone
PIAF	Progesteron Inducible Blocking Factor
CD8+	Cluster Of Differentiation 8
GDP	Guanosine Diphosphate
TH2	Type 2 T-Helper Cell
IL	Inter Leukin
RDS	Respiratory Distress Syndrome
MAS	Meconium Aspiration Syndrome
PPHN	Persistent Pulmonary Hypertension Of The Newborn
LMP	Last Menstrual Period
EDD	Estimated Delivery Date
HB	Heamoglobin
PIH	Pregnancy Induced Hypertension
APH	Antepartum Haemorrhage
LSCS	Lower Segment Caesarean Section
AVD	Assisted Vaginal Delivery
NVD	Normal Vaginal Delivery
PTB	Preterm Birth
LBW	Low Birth Weight
APGAR	Appearance, Pulse, Grimace, Activity And Respiration
CVS	Cardiovascular System
CNS	Central Nervous System

Reference

1. ADAMS MM, READ JA, RAWLINGS JS, HARLASS FB, AP, RHODES PH. Preterm delivery among black and white enlisted women in the United States Army. *Obstetrics &Gynecology*. 1993 Jan 1;81(1):65-71.
2. Blackmore CA, Savitz DA, Edwards LJ, Harlow SD, Jr WA. Racial differences in the patterns of preterm delivery in central North Carolina, USA. *Paediatric and perinatal epidemiology*. 1995 Jul;9(3):281-95.
3. Schieve LA, Handler A. Preterm delivery and perinatal death among black and white infants in a Chicago-area perinatal registry. *Obstetrics &Gynecology*. 1996 Sep 1;88(3):356-63.

4. Reynolds HD. Bacterial vaginosis and its implication in preterm labor and premature rupture of membranes: a review of the literature. *Journal of Nurse-Midwifery*. 1991 Sep 1;36(5):289-96.
5. Newton ER. Preterm labor, preterm premature rupture of membranes, and chorioamnionitis. *Clinics in perinatology*. 2005 Sep 1;32(3):571-600.
6. Morris JM, Roberts CL, Bowen JR, Patterson JA, Bond DM, Algert CS, Thornton JG, Crowther CA. Immediate delivery compared with expectant management after preterm pre-labour rupture of the membranes close to term (PPROMT trial): a randomised controlled trial. *The Lancet*. 2016 Jan 30;387(10017):444-52.
7. Alexander GR, Kogan M, Bader D, Carlo W, Allen M, Mor J. US birth weight/gestational age-specific neonatal mortality: 1995–1997 rates for whites, Hispanics, and blacks. *Pediatrics*. 2003 Jan;111(1):e61-6.
8. Alexander GR, Tompkins ME, Allen MC, Hulsey TC. Trends and racial differences in birth weight and related survival. *Maternal and Child Health Journal*. 1999 Jun;3:71-9.
9. Alexander GR, Michael D. Kogan, John H. Himes, Joanne M. Mor, and Robert Goldenberg. 1999." Racial Differences in Birthweight for Gestational Age and Infant Mortality in Extremely-Low-Risk US Populations.". *Paediatric & Perinatal Epidemiology*.;13:205-17.
10. DeFranco EA, Hall ES, Muglia LJ. Racial disparity in preivable birth. *American journal of obstetrics and gynecology*. 2016 Mar 1;214(3):394-e1.
11. Berger TM, Bernet V, El Alama S, Fauchère JC, Hösli I, Irion O, Kind C, Latal B, Nelle M, Pfister RE, Surbek D. Perinatal care at the limit of viability between 22 and 26 completed weeks of gestation in Switzerland. 2011 revision of the Swiss recommendations. *Swiss medical weekly*. 2011;141:w13280.
12. Chawanpaiboon S, Vogel JP, Moller AB, Lumbiganon P, Petzold M, Hogan D, Landoulsi S, Jampathong N, Kongwattanakul K, Laopaiboon M, Lewis C. Global, regional, and national estimates of levels of preterm birth in 2014: a systematic review and modelling analysis. *The Lancet Global Health*. 2019 Jan 1;7(1):e37-46.
13. Beck S, Wojdyla D, Say L, Betran AP, Merialdi M, Requejo JH, Rubens C, Menon R, Van Look PF. The worldwide incidence of preterm birth: a systematic review of maternal mortality and morbidity. *Bulletin of the world health organization*. 2010;88:31-8.
14. Carter D. Elective early births put moms and infants at risk. *AJN The American Journal of Nursing*. 2012 Apr 1;112(4):19-20.
15. Goldenberg RL, Iams JD, Das A, Mercer BM, Meis PJ, Moawad AH, Miodovnik M, VanDorsten JP, Caritis SN, Thurnau GR, Dombrowski MP. The preterm prediction study: sequential cervical length and fetal fibronectin testing for the prediction of spontaneous preterm birth. *American journal of obstetrics and gynecology*. 2000 Mar 1;182(3):636-43.
16. Goldenberg RL, Iams JD, Miodovnik M, Van Dorsten JP, Thurnau G, Bottoms S, Mercer BM, Meis PJ, Moawad AH, Das A, Caritis SN. The preterm prediction study: risk factors in twin gestations. *American journal of obstetrics and gynecology*. 1996 Oct 1;175(4):1047-53.
17. Goepfert AR, Goldenberg RL, Andrews WW, Hauth JC, Mercer B, Iams J, Meis P, Moawad A, Thom E, VanDorsten JP, Caritis SN. The Preterm Prediction Study: association between cervical interleukin 6 concentration and spontaneous preterm birth. *American journal of obstetrics and gynecology*. 2001 Feb 1;184(3):483-8.
18. Goldenberg RL, Iams JD, Mercer BM, Meis P, Moawad A, Das A, Copper R, Johnson F. for the national Institute of Child Health and Human Development Network: What we have learned about the predictors of preterm birth. In *Seminars in Perinatology 2003* (Vol. 27, No. 3, pp. 185-93).

19. Sanu O, Lamont RF. Periodontal disease and bacterial vaginosis as genetic and environmental markers for the risk of spontaneous preterm labor and preterm birth. *The Journal of Maternal-Fetal & Neonatal Medicine*. 2011 Dec 1;24(12):1476-85.
20. Beckmann M, Gardener G. Hospital versus outpatient care for preterm pre-labour rupture of membranes. *Australian and New Zealand Journal of Obstetrics and Gynaecology*. 2013 Apr;53(2):119-24.
21. Faucett AM, Metz TD, DeWitt PE, Gibbs RS. Effect of obesity on neonatal outcomes in pregnancies with preterm premature rupture of membranes. *American journal of obstetrics and gynecology*. 2016 Feb 1;214(2):287-e1.
22. JA LF. Comparison of maternal and perinatal outcomes in the conservative treatment preterm premature membrane rupture between the use of Erythromycin and clindamycin. *Ginecologia y Obstetricia de Mexico*. 2011 Jul 1;79(7):403-10.
23. Jonsson M, Ågren J, Nordén-Lindeberg S, Ohlin A, Hanson U. Neonatal encephalopathy and the association to asphyxia in labor. *American journal of obstetrics and gynecology*. 2014 Dec 1;211(6):667-e1.
24. Goldenberg RL, Iams JD, Mercer BM, Meis P, Moawad A, Das A, Copper R, Johnson F. for the national Institute of Child Health and Human Development Network: What we have learned about the predictors of preterm birth. In *Seminars in Perinatology 2003* (Vol. 27, No. 3, pp. 185-93).
25. Sanu O, Lamont RF. Periodontal disease and bacterial vaginosis as genetic and environmental markers for the risk of spontaneous preterm labor and preterm birth. *The Journal of Maternal-Fetal & Neonatal Medicine*. 2011 Dec 1;24(12):1476-85.
26. Beckmann M, Gardener G. Hospital versus outpatient care for preterm pre-labour rupture of membranes. *Australian and New Zealand Journal of Obstetrics and Gynaecology*. 2013 Apr;53(2):119-24.
27. Faucett AM, Metz TD, DeWitt PE, Gibbs RS. Effect of obesity on neonatal outcomes in pregnancies with preterm premature rupture of membranes. *American journal of obstetrics and gynecology*. 2016 Feb 1;214(2):287-e1.
28. JA LF. Comparison of maternal and perinatal outcomes in the conservative treatment preterm premature membrane rupture between the use of Erythromycin and clindamycin. *Ginecologia y Obstetricia de Mexico*. 2011 Jul 1;79(7):403-10.
29. Jonsson M, Ågren J, Nordén-Lindeberg S, Ohlin A, Hanson U. Neonatal encephalopathy and the association to asphyxia in labor. *American journal of obstetrics and gynecology*. 2014 Dec 1;211(6):667-e1.
30. Goldenberg RL, Iams JD, Mercer BM, Meis P, Moawad A, Das A, Copper R, Johnson F. for the national Institute of Child Health and Human Development Network: What we have learned about the predictors of preterm birth. In *Seminars in Perinatology 2003* (Vol. 27, No. 3, pp. 185-93).
31. Sanu O, Lamont RF. Periodontal disease and bacterial vaginosis as genetic and environmental markers for the risk of spontaneous preterm labor and preterm birth. *The Journal of Maternal-Fetal & Neonatal Medicine*. 2011 Dec 1;24(12):1476-85.
32. Beckmann M, Gardener G. Hospital versus outpatient care for preterm pre-labour rupture of membranes. *Australian and New Zealand Journal of Obstetrics and Gynaecology*. 2013 Apr;53(2):119-24.
33. Faucett AM, Metz TD, DeWitt PE, Gibbs RS. Effect of obesity on neonatal outcomes in pregnancies with preterm premature rupture of membranes. *American journal of obstetrics and gynecology*. 2016 Feb 1;214(2):287-e1.

34. JA LF. Comparison of maternal and perinatal outcomes in the conservative treatment preterm premature membrane rupture between the use of Erythromycin and clindamycin. *Ginecologia y Obstetricia de Mexico*. 2011 Jul 1;79(7):403-10.
35. JA LF. Comparison of maternal and perinatal outcomes in the conservative treatment preterm premature membrane rupture between the use of Erythromycin and clindamycin. *Ginecologia y Obstetricia de Mexico*. 2011 Jul 1;79(7):403-10.
36. Offiah I, O'Donoghue K, Kenny L. Clinical risk factors for preterm birth. *Preterm Birth: Mother and Child*. Rijeka, Croatia: InTech. 2012 Jan 27:73-94.
37. Simhan HN, Canavan TP. Preterm premature rupture of membranes: diagnosis, evaluation and management strategies. *BJOG: An International Journal of Obstetrics & Gynaecology*. 2005 Mar;112:32-7.
38. Barinov SV, Shamina IV, Lazareva OV, Tirskaia YI, Ralko VV, Shkabarnya LL, Dikke GB, Kochev DM, Klementyeva LL. Comparative assessment of arabin pessary, cervical cerclage and medical management for preterm birth prevention in high-risk pregnancies. *The Journal of Maternal-Fetal & Neonatal Medicine*. 2017 Aug 3;30(15):1841-6.
39. Sieroszewski P, Jasiński A, Perenc M, Banach R, Oszukowski P. The Arabin pessary for the treatment of threatened mid-trimester miscarriage or premature labour and miscarriage: a case series. *The Journal of Maternal-Fetal & Neonatal Medicine*. 2009 Jan 1;22(6):469-72.
40. Tsikouras P, Anastasopoulos G, Maroulis V, Bothou A, Chalkidou A, Deuteraiou D, Anthoulaki X, Tsatsaris G, Bourazan AH, Iatrakis G, Zervoudis S. Comparative evaluation of arabin pessary and cervical cerclage for the prevention of preterm labor in asymptomatic women with high risk factors. *International journal of environmental research and public health*. 2018 Apr;15(4):791.
41. Jonsson M, Ågren J, Nordén-Lindeberg S, Ohlin A, Hanson U. Neonatal encephalopathy and the association to asphyxia in labor. *American journal of obstetrics and gynecology*. 2014 Dec 1;211(6):667-e1.
42. Yu H, Wang X, Gao H, You Y, Xing A. Perinatal outcomes of pregnancies complicated by preterm premature rupture of the membranes before 34 weeks of gestation in a tertiary center in China: A retrospective review. *Bioscience trends*. 2015 Feb 28;9(1):35-41.
43. Simhan HN, Canavan TP. Preterm premature rupture of membranes: diagnosis, evaluation and management strategies. *BJOG: An International Journal of Obstetrics & Gynaecology*. 2005 Mar;112:32-7.
44. Tsikouras P, Anastasopoulos G, Maroulis V, Bothou A, Chalkidou A, Deuteraiou D, Anthoulaki X, Tsatsaris G, Bourazan AH, Iatrakis G, Zervoudis S. Comparative evaluation of arabin pessary and cervical cerclage for the prevention of preterm labor in asymptomatic women with high risk factors. *International journal of environmental research and public health*. 2018 Apr;15(4):791.
45. Sieroszewski P, Jasiński A, Perenc M, Banach R, Oszukowski P. The Arabin pessary for the treatment of threatened mid-trimester miscarriage or premature labour and miscarriage: a case series. *The Journal of Maternal-Fetal & Neonatal Medicine*. 2009 Jan 1;22(6):469-72.
46. Barinov SV, Shamina IV, Lazareva OV, Tirskaia YI, Ralko VV, Shkabarnya LL, Dikke GB, Kochev DM, Klementyeva LL. Comparative assessment of arabin pessary, cervical cerclage and medical management for preterm birth prevention in high-risk pregnancies. *The Journal of Maternal-Fetal & Neonatal Medicine*. 2017 Aug 3;30(15):1841-6.
47. Barinov SV, Shamina IV, Lazareva OV, Tirskaia YI, Ralko VV, Shkabarnya LL, Dikke GB, Kochev DM, Klementyeva LL. Comparative assessment of arabin pessary, cervical cerclage

- and medical management for preterm birth prevention in high-risk pregnancies. *The Journal of Maternal-Fetal & Neonatal Medicine*. 2017 Aug 3;30(15):1841-6.
48. Ting YH, Lao TT, Wa Law L, Hui SY, Chor CM, Lau TK, Yeung Leung T. Arabin cerclage pessary in the management of cervical insufficiency. *The Journal of Maternal-Fetal & Neonatal Medicine*. 2012 Dec 1;25(12):2693-5.
 49. Boelig RC, Berghella V. Current options for mechanical prevention of preterm birth. *In Seminars in Perinatology* 2017 Dec 1 (Vol. 41, No. 8, pp. 452-460). WB Saunders.
 50. Saccone G, Ciardulli A, Xodo S, Dugoff L, Ludmir J, Pagani G, Visentin S, Gizzo S, Volpe N, Maruotti GM, Rizzo G. Cervical pessary for preventing preterm birth in singleton pregnancies with short cervical length: a systematic review and meta-analysis. *Journal of Ultrasound in Medicine*. 2017 Aug;36(8):1535-43.
 51. Bonanno C, Wapner RJ. Antenatal corticosteroids in the management of preterm birth: are we back where we started?. *Obstetrics and Gynecology Clinics*. 2012 Mar 1;39(1):47-63.
 52. Bricena-Perez C, Reyana-Villasmil E, Vigil-De-Gracia P. Antenatal corticosteroids therapy: Historical and scientific basis to improve preterm birth management. *EJOG*. 2019;234:32-7.
 53. Barinov SV, Shamina IV, Lazareva OV, Tirskaia YI, Ralko VV, Shkabarnya LL, Dikke GB, Kochev DM, Klementyeva LL. Comparative assessment of arabin pessary, cervical cerclage and medical management for preterm birth prevention in high-risk pregnancies. *The Journal of Maternal-Fetal & Neonatal Medicine*. 2017 Aug 3;30(15):1841-6.
 54. Ting YH, Lao TT, Wa Law L, Hui SY, Chor CM, Lau TK, Yeung Leung T. Arabin cerclage pessary in the management of cervical insufficiency. *The Journal of Maternal-Fetal & Neonatal Medicine*. 2012 Dec 1;25(12):2693-5.
 55. Boelig RC, Berghella V. Current options for mechanical prevention of preterm birth. *In Seminars in Perinatology* 2017 Dec 1 (Vol. 41, No. 8, pp. 452-460). WB Saunders.
 56. Saccone G, Ciardulli A, Xodo S, Dugoff L, Ludmir J, Pagani G, Visentin S, Gizzo S, Volpe N, Maruotti GM, Rizzo G. Cervical pessary for preventing preterm birth in singleton pregnancies with short cervical length: a systematic review and meta-analysis. *Journal of Ultrasound in Medicine*. 2017 Aug;36(8):1535-43.
 57. Bonanno C, Wapner RJ. Antenatal corticosteroids in the management of preterm birth: are we back where we started?. *Obstetrics and Gynecology Clinics*. 2012 Mar 1;39(1):47-63.
 58. Bricena-Perez C, Reyana-Villasmil E, Vigil-De-Gracia P. Antenatal corticosteroids therapy: Historical and scientific basis to improve preterm birth management. *EJOG*. 2019;234:32-7.
 59. Fuchs F, Audibert F, Senat MV. Prenatal corticosteroids: short-term and long-term effects of multiple courses. Literature review in 2013. *Journal de Gynecologie, Obstetrique et Biologie de la Reproduction*. 2014 Feb 12;43(3):211-7.
 60. Crowther CA, Ashwood P, Andersen CC, Middleton PF, Tran T, Doyle LW, Robinson JS, Harding JE, Crowther C, Andersen C, Middleton P. Maternal intramuscular dexamethasone versus betamethasone before preterm birth (ASTEROID): a multicentre, double-blind, randomised controlled trial. *The Lancet Child & Adolescent Health*. 2019 Nov 1;3(11):769-80.
 61. Hong S, Lee SM, Kwak DW, Lee J, Kim SY, Oh JW, Oh S, Park CW, Park JS, Chung JH, Jun JK. Effects of antenatal corticosteroids in twin neonates with late preterm birth (ACTWIN [Antenatal Corticosteroids in TWIN late preterm neonates] trial): study protocol for a randomized controlled trial. *BMC pregnancy and childbirth*. 2019 Dec;19:1-6.

62. Schmitz T. Prevention of preterm birth complications by antenatal corticosteroid administration. *Journal de gynecologie, obstetrique et biologie de la reproduction*. 2016 Oct 21;45(10):1399-417.
63. Mercer B. Antibiotics in the management of PROM and preterm labor. *Obstetrics and Gynecology Clinics*. 2012 Mar 1;39(1):65-76.
64. Jackson GL, Rawiki P, Sendelbach D, Manning MD, Engle WD. Hospital course and short-term outcomes of term and late preterm neonates following exposure to prolonged rupture of membranes and/or chorioamnionitis. *The Pediatric infectious disease journal*. 2012 Jan 1;31(1):89-90.
65. JA LF. Comparison of maternal and perinatal outcomes in the conservative treatment preterm premature membrane rupture between the use of Erythromycin and clindamycin. *Ginecologia y Obstetricia de Mexico*. 2011 Jul 1;79(7):403-10.
66. Newton ER. Preterm labor, preterm premature rupture of membranes, and chorioamnionitis. *Clinics in perinatology*. 2005 Sep 1;32(3):571-600.
67. Singh K, Mercer B. Antibiotics after preterm premature rupture of the membranes. *Clinical Obstetrics and Gynecology*. 2011 Jun 1;54(2):344-50.
68. Hudić I, Stray-Pedersen B, Tomić V. Preterm birth: pathophysiology, prevention, diagnosis, and treatment. *BioMed research international*. 2015 Aug 30;2015.
69. Edwards MO, Kotecha SJ, Kotecha S. Respiratory distress of the term newborn infant. *Paediatric respiratory reviews*. 2013 Mar 1;14(1):29-37.
70. Warren JB, Anderson JM. Newborn respiratory disorders. *Pediatrics in review*. 2010 Dec 1;31(12):487.
71. Reuter S, Moser C, Baack M. Respiratory distress in the newborn. *Pediatrics in review*. 2014 Oct;35(10):417.
72. Yadav S, Lee B, Kamity R. Neonatal respiratory distress syndrome.b
73. Holme N, Chetcuti P. The pathophysiology of respiratory distress syndrome in neonates. *Paediatrics and child health*. 2012 Dec 1;22(12):507-12.
74. Gartner LM. Neonatal jaundice. *Pediatrics in review*. 1994 Nov;15(11):422-32.
75. Ives NK. Management of neonatal jaundice. *Paediatrics and Child Health*. 2015 Jun 1;25(6):276-81.
76. Paridhi G, Nilesh D, Sumit A, Vinit W, Garg P. Study of Aetiology of Neonatal Jaundice at tertiary care centre in Maharashtra. *SJAMS ISSN*. 2015;2320:6691.
77. Gobburu R. Neonatal jaundice: pathophysiology and management. *Morecambe Bay Medical Journal*. 2004 Sep 1;4(9):229-30.
78. Bhatia BD, Gupta V, Dey PK. Meconium aspiration syndrome: current concepts. *Indian journal of maternal and child health: official publication of Indian Maternal and Child Health Association*. 1996;7(1):1-7.
79. Bhatia BD, Gupta V, Dey PK. Meconium aspiration syndrome: current concepts. *Indian journal of maternal and child health: official publication of Indian Maternal and Child Health Association*. 1996;7(1):1-7.
80. Sayad E, Silva-Carmona M. Meconium aspiration. *InStatPearls [Internet]* 2022 May 8. StatPearls Publishing.
81. Swarnam K, Soraisham AS, Sivanandan S. Advances in the management of meconium aspiration syndrome. *International journal of pediatrics*. 2012 Jan 1;2012.

Philological Sciences

Politician as a subject of political discourse and linguistic personality (on the example of Salome Zurabishvili's discourse)

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Abstract

According to one of the explanations, discourse might be described as a scientific object, which defines the parameters of individual cognitive system of the specific linguistic personality.

Each political discourse is based on the whole complex of ideological viewpoints. On the one hand, politics means the nomenclature of balancing government and economical resources into the state, and actions towards relations among countries. But, on the other hand, political discourse is personal, personified and presents actualizing way of the first level in individual cognition. According to this viewpoint, it's particularly important to discuss the conception of linguistic personality in politics.

The concept of linguistic personality means generalized communicational person having linguistic-cultural, communicational and creative values, knowledge and behavior. Three levels of development of the linguistic personality can be revealed: verbal-semantic, cognitive and pragmatic. Showing individualism on verbal-semantic level is nominal. Individualism is more sharply revealed on pragmatic level, as a person's intention, interest and situational motivation are apparent. As a result of discussing textual and video materials of a politician, linguistic personality as a political discourse subject can be defined. Actions of linguistic personality, in politics, is directed to the fight for ruling, which is the basic goal of political communication. A politician, as a linguistic personality, realizes himself/herself in discursive actions: he/she purposefully uses linguistic and paralinguistic methods, which helps him/her win the elections. Linguistic personality of a politician is discursive-textual phenomenon, in which individual characteristics are represented in diverse intensification. Linguistic researchers of political discourse describe basic strategies of linguistic personality, such as: manipulation, argumentation, self-presentation, discrediting opponents, fight for ruling etc. each strategy is carried out by specific tactics. Tactics is defined with the speaker's intention and is explicated by the whole complex of the methods and ways, which, itself, determine the use of specific lexical units.

The purpose of the article is to describe the politician as a linguistic personality of the subject of political discourse. In this study, the pre-election speeches of Salome Zurabishvili, will be presented. The communicative-pragmatic analysis of her language discourse will be discussed, which includes the features of a specific politician's "speech passport".

Key words: *linguistic personality, political discourse, subject of political discourse.*

Salome Zurabishvili is the first woman in the recent history of Georgia who claimed to become one of the highest authorities of the country.

A distinguishing feature of Salome Zurabishvili's political communication is intensified pragmatism, which helps her in the fight for the government and is aimed at propagating certain ideas. When analyzing her political discourse, we can conclude that the characteristics of Salome

Zurabishvili as a linguistic person are such strategies as manipulation, argumentation, self-presentation, criticism of the opponent, struggle for power, etc. The analysis of his public speeches leads to the conclusion that his presentation is mainly based on such promises as equality of citizens of multi-ethnic Georgia, religious tolerance, emphasizing her professionalism, her own vision of solving the problem of territorial integrity, etc. Conceptually, it is more focused on mental-value, national-patriotic aspects.

In all speeches of Salome Zurabishvili, the need to maintain a stable, safe environment in the country is emphasized. In her opinion, there should be no confrontation with various governmental branches and non-governmental organizations within the country.

"For business, it means that we really have to get out of all kinds of confrontations. I have said enough, there must be no internal strife if we want to be the kind of cohesive society that the country really needs and gives the country the ground it needs. Non-confrontation between the president and other institutions, non-confrontation with the government, parliament, non-governmental organizations, because all this hinders us. It doesn't mean obedience, it doesn't mean you don't have your principles. You will advance and share this vision in every form, in every way, it means that you understand that this country needs cooperation to do things."

Thus, tolerance, civil values and responsibilities, civil society, cooperative relations and principled, but positive-oriented coexistence of any problem perceived in terms of the case and the country's well-being are the main accents of Salome Zurabishvili's election messages.

Zurabishvili emphasizes in all her speeches that she will protect all citizens equally, regardless of nationality and religion. These political messages are especially actively used by opponents in areas densely populated by other nationalities. For example, during a meeting with voters in Ninotsminda, Zurabishvili said:

"I will be the president of all citizens of Georgia. It is because I was born in France that I may have a better understanding of what citizenship means. This means that everyone has the same rights regardless of religion, origin, culture and language. All this does not matter because everyone is an equal citizen of the country. I will be the president of these equal citizens".

The idea of religious tolerance is one of the main ones in her speeches. At the same time, Salome Zurabishvili emphasizes her religious beliefs. Since most of the voters of Georgia are Orthodox Christians, she mentions everywhere that she is also Orthodox:

"They call me and say that I am a Catholic. I'm not Catholic, I'm orthodox, but for some reason they think it's a curse word. When it is the other way around, we should respect everyone regardless of everyone's religion. Georgia was known for this, Georgia is a country of tolerance, and I will be the president of tolerant Georgia."

The main problem of Georgian citizens over the years is the loss of territorial integrity, which is unthinkable if it is not the main issue of any politician's speech. According to Salome Zurabishvili, after taking the oath, her main obligation will be to protect the sovereignty and independence of the territory of Georgia:

"I will do everything for this and go to the end. I really hope I never become the commander-in-chief of this country, because if I do, we'll be at war, but I'll do everything I can to make sure we don't get to that point. If necessary, I will not be on any bridge or border.

Zurabishvili emphasizes her diplomatic education and sends specific messages to the population:

"I will be a lobbyist outside this country. Every day I will be a lobbyist for the culture and identity of this country in order to take Georgia to Europe and the world. We have so much to give to the world, the very values and values that some trample underfoot. This is what is inimitable, for which Georgia is unique, if not, very valuable to the world. For the world that sometimes loses its orientation and searches for these spiritual values".

Criticism of opponents is the main feature of Salome Zurabishvili's speeches, as well as demonstrating a strongly negative attitude towards Russia's aggressive policy:

"I say that the president and the government at that time either made a big mistake or committed a big crime, as a result of which we, our displaced persons and the citizens of our state who are vulnerable in the occupied territories, are living."

"Let's ask, who named Upper Abkhazia the Kodori valley, Tskhinvali region and the conflict zone, who expanded it and officially christened it South Ossetia?" Who left expensive weapons in Kodori and who left our boys in the forest?"

Zurabishvili believes that these questions should be answered:

"We must know the reality about the past, about the crimes of our government, because we have a future ahead of us, and in this future we must not only do business and strengthen the country, but we must integrate it. And to sum it up, our brothers from Abkhazia and South Ossetia, the so-called We must appeal to the republics that they are citizens of Georgia, that they do not need Russia's protection, that they are our future and we will be united together."

Salome Zurabishvili's speeches have a balanced *I* and *we* segment. As an interesting person with a personal history, she draws clear boundaries between the past, the present and the future. In relation to the past, the concepts - me, Russia, homeland, emigration dominate; In relation to modernity - occupation, Russia, Saakashvili, provoked war and the future is connected with concepts like *_ us*, integration, identity, civil society.

Women have a great role to play in modern world politics. This factor is effectively used by the female candidate for the presidency, and when talking about the role of the president, she singles out the topic of women and notes that she will first of all be a "women's president".

"Our country is ready to have a woman president.

A woman president will be a member of the global network of women leaders. They have many ways to help each other. I intend to make full use of this opportunity."

In the gender aspect, the component of ancestors, family and children is especially important. Salome Zurabishvili's discourse in this respect is outstanding in relation to the historical resources of the country.

Speaking on the topic of education, Salome Zurabishvili came up with the initiative of placing kindergartens and nursing homes side by side, which, in her opinion, will be a good way to connect generations and use the experience of elders. She emphasized the necessity of returning students who went to study abroad and noted that "we must take strict measures" to return them to Georgia.

"It is important that all generations are active. We don't have the luxury of only a fraction of the community being active. There are many ways for the third generation - our little ones - to be connected with older people. This is how traditions and knowledge are transferred. This is how young people learn that violence and the language of hatred should not spread in the country. They should grow up with the love of their grandparents."

In her speeches, Salome Zurabishvili actively uses vocabulary characteristic of political activities (referendum campaign, negotiation strategy, restoration of justice, excessive budget, etc.). In her conversation, it is notable that she uses complex grammatical constructions, idiomatic expressions, figurative comparisons, and gives vivid examples:

"We seemed to be living in the center of a huge web that Georgians have woven like a spider."

"I returned in 2004 to a country radiant with the idea of democracy, which was being reborn after captivity and chaos."

"Today, this country needs the restoration of justice the most, in order to develop and regain peace. Today is a symbolic day, what is decided today is the turning of the page with the past and the ending".

"The president is not the leader of a political party, he is not the leader of a political force, the president is a representative of society and a leader of society."

The analysis of Salome Zurabishvili's speech gives us the opportunity to characterize her linguistic personality, who, despite a number of linguistic flaws, are mostly exaggerated by opponents, which can argue and clearly call the audience to the necessary action, which is so important for quality change of life in the difficult historical period of Georgia.

Salome Zurabishvili's cognitive system as a politician is focused on universal values (unity of the nation, equality, dignity, love for the country, etc.), and her communicative situation promotes their cultivation in the country and abroad. Salome Zurabishvili's linguistic personality system is clear, distinguished by argumentativeness and persuasiveness.

Reference

1. Dijk 2008: Van Dijk, T.A., Discourse and Power. Macmillan, 2008;
2. Караулов Ю.Н. Russian language and language personality. – М. : Издательство ЛКИ, 2010. – 264 с
3. Tamar Lomadze: Cognitive aspects of speech impact on public opinion. 2016
4. S. Zurabishvili "Towards Georgia" 2013
5. Salome Zurabishvili's speech at the Rustaveli Theater. 510.2018
6. Presidential campaign of Salome Zurabishvili from Niko Nikoladze House Museum. 16.08.2018
7. Interview of Salome Zurabishvili, 31.10.2018

Fransız dilində vasitəsiz və vasitəli tamamlıq kimi işlənən əvəzlilərin işlənmə yerləri

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Açar sözlər: *tamamlıq, vasitəli, vasitəsiz, əvəzlilik, təsdiq, sual, inkar*

Xülasə

Fransız dilini öyrənərkən tamamlıq kimi işlənən əvəzlilərlə bağlı qaydaları başa düşmək və tətbiq etmək çətin görünə bilər. Ancaq fransız dilində danışmaq və yazmaq istəyirsinizsə, bu qaydalara yiyələnmək vacibdir. Yazılı və şifahi bütün söhbətlərimizdə onlardan istifadə edirik. Buna görə də biz lazımsız təkrarlardan qaçmaq üçün vasitəli obyekt əvəzliyindən və vasitəsiz obyekt əvəzliyindən necə istifadə edəcəyimizi birlikdə görəcəyik. Vasitəli tamamlıq kimi işlənən əvəzlilər insan və ya heyvanın adını əvəz etmək üçün istifadə olunur. Bu isim və ya ismi birləşmə COD funksiyasına malikdir. Kimə sualına cavab verir? COD əvəzliyi heç vaxt cansız isimləri əvəz etmir, yalnız canlı varlıqları əvəz edir. COD əvəzliləri insanın, heyvanın və ya əşyanın adını əvəz edir. Bu isim və ya ismi birləşmə birbaşa obyekt tamamlıq və ya COD funksiyasına malikdir. O, bir insan və ya heyvan üçün "Kimi?", cansız əşya üçün "nəyi?" sualına cavab verir. Əgər COD xüsusi isimdirsə (Marie, Pierre və s.) və ya müəyyən artikl (le, la, les, və s.) , işarə sifəti (ce, cet, cette, ces) mənsubiyyət sifətidi ilə təqdim olunarsa (mon, ton, son...), onda COD əvəzlilərindən istifadə olunur. Digər tərəfdən, bu COD hissə (du, de la, des), rəqəm (un, deux, dix) və ya qeyri-müəyyən (un, une, des, certains, plusieurs...) ilə təqdim edilirsə, bunu birbaşa obyekt əvəzliyindən (le, la, les...) daxil etmək olmaz, lakin "en" əvəzliyindən istifadə edilməlidir.

Pronoms compléments d'objet direct (COD) – Vasitəsiz tamamlıq kimi işlənən əvəzlilər bunlardır:

Tək	Cəm
I me- məni	Nous- bizi
II te-səni	Vous- sizi
III le-onu(kişi cinsi üçün) la – onu (qadın cinsi üçün)	Les- onları

COD-lar cümlədə vasitəsiz tamamlıq kimi işlənir və *kimi, nəyi* sualına cavab verir. Onlar təsdiq, sual, inkar cümlələrində feilin qarşısında durur.

George nous cherche.- Jorj bizi axtarır. George nous cherche-t-il?- Jorj bizi axtarırmı? George ne nous cherche pas.- Jorj bizi axtarmır. Il me voit.- O, məni görür. Nous ne vous cherchons pas.- Biz sizi axtarmırıq. Me voit-il?- O, məni görürmü? Nous cherchez-vous?- Siz bizi axtarırsınız mı?

"Le, la, les" - isimlə ifadə olunmuş canlı vasitəsiz tamamlığı və qarşısında müəyyən artikl, mənsubiyyət və işarə sifəti olan cansız vasitəsiz tamamlığı əvəz edir. [2.s 64]

Je lis les lettres de mon amie .-Mən rəfiqəmin məktublarını oxuyuram. Je les lis:- Mən onları oxuyuram. Samir prend la pomme.- Samir almanı götürür. Samir la prend.- Samir onu götürür. Vugar prend ce livre.- Vugar bu kitabı götürür. Vugar le prend.- Vugar onu götürür. Hélène prépare ses leçons.- Helen dərslərini hazırlayır. Hélène les prépare.- Helen onları hazırlayır. Victor cherche

Henri.- Viktor Anrini axtarır. Victor le cherche.- Viktor onu axtarır. Victor cherche Sylvie.- Viktor Silvini axtarır. Victor la cherche.- Viktor onu axtarır.

"Le, la, les"- həm artikl, həm də COD ola bilər. Onları yerinə görə müəyyənləşdirmək lazımdır. "Le, la, les" ismin qarşısında işlədikdə article (le livre- kitab, les enfants-uşaqlar), feilin qarşısında işlədikdə isə COD olur (Je le mets.- Mən onu qoyuram. Je les prends.- Mən onları götürürəm).

COD – in məsdər tərkibli cümlələrdə işlənməsi

Məsdər tərkibli cümlələrdə COD-lar məsdərin qarşısında durur.

Je veux donner ces fleurs à ma mère.- Mən bu gülləri anama vermək istəyirəm. Je veux les donner à ma mère.- Mən onları anama vermək istəyirəm. Peux-tu montrer ton devoir?- Sən tapşırığını göstərə bilərsənmi? Oui, je peux les montrer.- Bəli, mən onları göstərə bilərəm. Aimes-tu lire les romans policiers?- Sən detektiv romanlarını oxumağı sevirənsənmi? Oui, j'aime les lire.- Bəli, mən onları oxumağı sevirəm.

COD-lar əmr şəklində təsdiqində feildən sonraya keçir.

Mets les livres dans ta serviette!- Kitabları çantana qoy! Mets- les dans ta serviette!- Onları çantana qoy!

COD-lar əmr şəklində inkarında isə feilin qarşısında işlənir.

Ne prends pas mon stylo.- Mənim qələmimi götürmə! Ne le prends pas!- Onu götürmə!

Pronoms complément d'objet indirect (COI)-Vasitəli tamamlıq kimi işlənən əvəzlilər.

Tək	Cəm
I me-mənə	Nous- bizə
II te- sənə	Vous- sizə
III lui – ona (hər 2 cins üçün)	Leur- onlara

Bu əvəzlilər cümlədə vasitəli tamamlıq kimi işlənir, kimə? Nəyə? sualına cavab verir və təsdiq, inkar və sual cümlələrində feilin qarşısında işlənir. [2.s 67]

Il me donne un livre.- O, mənə bir kitab verir. Je montre ma dictée à mon professeur.- Mən imlamı öz müəllimimə göstərirəm. Je lui montre ma dictée.- Mən imlamı ona göstərirəm. Victor ne donne pas son adresse à mes copins.- Viktor ünvanını dostlarıma vermir. Victor ne leur donne pas son adresse.- Viktor onlara ünvanını vermir. Te donne-t-il un livre?- O, sənə kitab verirmi?

Qarşısında "à" sözünü istifadə olunan canlı isimləri əvəz edir.Yəni vasitəli şəxs əvəzlilərini yazmaq üçün, xəbərə sual verdiyimiz zaman ismin yönük halının sualı ortaya çıxmalıdır.[1.s 44] Ex: Je téléphone à mon ami; Je lui téléphone;

COI-lərin məsdər tərkibli cümlələrdə işlənməsi

Məsdər tərkibli cümlələrdə COI-lər məsdərin qarşısında işlənir.

Nous voulons acheter cette belle chemise à Didier.- Biz bu qəşəng köynəyi Didiyeyə almaq istəyirik. Nous voulons lui acheter cette belle chemise- Biz ona bu qəşəng köynəyi almaq istəyirik. Voulez-vous lui acheter cette belle chemise?- Siz bu qəşəng köynəyi ona almaq istəyirsinizmi? Nous ne voulons pas lui acheter cette belle chemise.- Biz bu qəşəng köynəyi ona almaq istəmirik.

Əmr şəklində təsdiqində COI-lər feildən sonraya keçir.

Téléphone à Jacques!- Jaka zəng et! Téléphone-lui!- Ona zəng et!

Əmr şəklində inkarında isə COI-lər feilin qarşısında işlənir.

Ne racontez pas des histoires horribles aux enfants!- Uşaqlara qorxulu hekayələr danışmayın! Ne leur racontez pas des histoires horribles!- Onlara qorxulu hekayələr danışmayın!

COD və COI-lərin cümlədə yeri

Təsdiq, sual, inkar cümlələrdə və əmr şəklinin inkarında COD və COI-lər birlikdə işlənərsə, aşağıdakı qaydalara əməl etmək lazımdır.

●Əgər cümlədə vasitəli tamamlığı əvəz edən əvəzlilər (COI) I və II şəxsə aiddirsə (me, te, nous, vous), bu zaman əvvəlcə COI (vasitəli tamamlıq), sonra COD (vasitəsiz tamamlıq) gəlir.

Mübtəda+vasitəli tamamlıq+vasitəsiz tamamlıq+xəbər

Ali me donne son livre.- Əli kitabını mənə verir. Il me le donne.- O, onu mənə verir. Lili nous montre ses photos.- Lili şəkillərini bizə göstərir. Elle nous les montre.- O, onları bizə göstərir. Elle me te montre.- O, səni mənə göstərir. Sabir prend le livre.- Sabir kitabı götürür. Il ne me le donne pas.- O, onu mənə vermir. Te le donne-t-il?- O, onu sənə verirmi?

●Cümlədə vasitəli və vasitəsiz tamamlığı əvəz edən əvəzlilərin hər ikisi III şəxsə olarsa, bu zaman COD (vasitəsiz tamamlıq), sonra COI (vasitəli tamamlıq) gəlir.

Mübtəda+vasitəsiz tamamlıq+vasitəli tamamlıq+xəbər

Sylvie montre son dessin à son amie.- Silvi öz şəklini rəfiqəsinə göstərir. Elle le lui montre.- O, onu ona göstərir. Le professeur explique les règles aux élèves.- Müəllim qaydaları şagirdlərə izah edir. Le professeur les leur explique.- Müəllim onları onlara izah edir.

Əmr şəklinin təsdiqində hər iki əvəzlik feildən sonraya keçir, əvvəlcə COD, sonra COI gəlir.

Tu me le donnes.- Sən onu mənə verirsən. Donne-le-moi! Onu mənə ver! Nous vous la racontons. Biz onu sizə danışırıq. Racontons-la-vous! Onu sizə danışaq! Tu les leur dis. Sən onları onlara deyirsən. Dis-les-leur! Onları onlara de!

Ədəbiyyat

- 1.Axundov Y. (2015)Le français Grammaire.-Naxçıvan.- 174 s.
- 2.Həsənova X., Məmmədova G., İsmiyeva X., Ağayev F. (2019). Le français pour tous.- Bakı: LOMAN NƏŞRİYYATI.- 300S.
- 3.HÜSEYNOV S.S. (2012) FRANSIZ DİLİ Azərbaycan Dövlət Bədən Tərbiyəsi və İdman Akademiyasının bakalavr təhsil dərəcəsinə I və II kurs tələbələri üçün dərslik "Mütərcim" nəşriyyatı Bakı – 247 s.
4. Попова И.Н., Казакова Ж.А. (1998). Французский язык. Cours pratique de grammaire française.- Москва: Типография «Новости».- 475 s.
5. Vekilova A., Nabiyev N. (2017). XARİCİ DİL (bütün ixtisaslar üzrə). – Bakı: Elm və təhsil.- 159-S.

ETIQUETTE IN BUSINESS COMMUNICATION

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Abstract

Philosophers have been discussing the norms of communication and relationships between people for many years. And from all this reasoning, the “golden” rule of communication ethics was derived: “Do with people the way you want them to do with you.”

Ethics (from Greek ethika, from ethos - custom, moral character) - the doctrine of morality, morality.

It is important to note that the fate of many people often depends on the actions of managers, on what decisions they make.

Etiquette in business communication is a set of rules and norms of conduct that help establish professional and mutually beneficial relationships between business partners, colleagues and clients. Business etiquette contributes to maintaining a positive impression of the person and organization, builds trust and contributes to the successful conduct of business.

In any communication, conflicts and misunderstandings are inevitable. Business etiquette is a set of rules for ordering communication in a business environment. Etiquette regulates the relationship between a boss and a subordinate, business partners, and a team. Those who adhere to the rules of business communication are less likely to get into a difficult situation.

Compliance with the etiquette of business relations shows the entrepreneur from the winning side. In the eyes of partners, he looks like a professional who knows his business. In fact, the appearance does not always indicate real skills and abilities, but following the rules of communication creates the image of a confident and knowledgeable specialist. If an emergency situation happens to you at work, then the norms of conduct in business relations will allow you to get out of it without losing face.

Knowing the rules of etiquette will make a good impression on a person and will allow you not to lose face. Their use will enhance the image of the company and place people positively.

Keywords: etiquette, business, communication, rules, regulations, entrepreneur

The interaction of people, including business, in various situations has long been regulated and ordered by the norms and rules of etiquette. Etiquette is a set of rules of conduct that regulate the external manifestations of human relationships (treatment with others, forms of communication and greetings, behavior in public places, manners and clothing). And business etiquette regulates the behavior associated with the performance of people's official duties.

Knowledge of the rules of good manners and their observance is a hallmark of an educated and well-mannered person, regardless of his occupation.

In business communication, etiquette is of particular importance: neglecting it not only negatively affects the reputation of the entrepreneur, but can even provoke conflicts with a client or partner. Over time, behavior patterns change. Today, to make a good impression, it is not enough just to be friendly and polite.

Below is a list of business communication etiquette rules that entrepreneurs should always remember:

1. Follow the chain of command. In any case, the boss is on the career ladder above the subordinate, regardless of gender and age of both.
2. Be punctual. Don't forget the "politeness of kings".
3. Be concise and to the point, do not allow yourself to say too much.
4. Learn to listen to the interlocutor.
5. Take into account the opinion of a partner, consider not only your own interests.
6. Dress according to your surroundings. Appearance forms the first impression, so take care of your hair, suit, shoes and learn how to choose accessories. Restraint in dress is encouraged. Business women should forget about too flashy makeup and inappropriate jewelry.
7. Pay attention to the culture of speech and writing. Do not use jargon, do not repeat yourself, avoid parasitic words and do not abuse introductory constructions. Remember grammar.
8. Watch your gestures. It can give the interlocutor an idea of your character, whether you like it or not. A business person is distinguished by confident movements, a firm gait, a straight back, an even and calm expression on his face. Remember that business communication does not involve any touch other than a handshake.

Observance of etiquette standards in any case provides some competitive advantage. The result of productive communication is not only signed agreements and transactions, but also a positive impression of the participants about each other.

Speech etiquette in business communication

From an entrepreneur, impeccable command of the language is required. This means that he must:

- have a rich vocabulary;
- pronounce words correctly;
- have an understanding of style and grammar - correctly build phrases. [3]

Business meeting etiquette

The behavior of partners during a business meeting is also subject to the rules of etiquette:

1. Acquaintance and introduction. Ideally, you should be introduced by the meeting organizer. If it is not available, introduce yourself. Guests introduce themselves first. It is customary to introduce the younger to the elder, and the man to the woman. You should not introduce people to each other if they are not interested in getting to know each other. In the process of introducing a person, it is necessary to name not only his full name, but also his position, as well as his place of work.

2. Appeal. The man usually greets the woman first, the junior - the elder, and the employee - the boss. In fact, this rule can sometimes be neglected: a business person will not wait until his subordinates or colleagues greet him, but will take the initiative. In general, you should not attach too much importance to the greeting.

When addressing someone, call him by his first name and patronymic (especially if he is older than you or you do not know him well enough). This is the norm for our country. Many people find it unpleasant to be addressed by their first name, as, for example, Americans do. In principle, if your closest employees have nothing against such treatment, then the middle name can be neglected. However, remember that you do not need to address the person who cannot do the same when talking to you. Such an appeal must be mutual.

3. Conducting a business conversation. To be successful in business, you must acquire business negotiation skills. Learn to listen carefully to the interlocutor, do not interrupt him or be distracted. During a business conversation, do not cast languid glances at your watch, do not shift or reread documents, do not answer phone calls. If you still need to answer, apologize to the interlocutor. Remember that outsiders should not be present during business negotiations.

Avoid hasty and categorical statements. They will not reflect in the best way on the reputation of a novice businessman. Do not abuse the pronoun "I". Be concise and accessible, rely on facts in your judgments. If the interlocutor knows nothing about them, indicate the source of information: refer to a news site, literary work, any document or conversation with partners. [2] Don't get carried away with savoring the details, but remember that sometimes it's good to show your exceptional knowledge. One seemingly insignificant detail can change not only the course of negotiations, but also the views of the interlocutor.

Do not exacerbate problems, look for ways to solve them. You and your interlocutor probably agree on a number of issues, which means that a compromise is possible. If the interlocutor is determined and aggressive, let him speak, and then offer your own solution to the problem.

Learn to show attention to the interlocutor: be interested in his opinion, praise, thank. This will show respect for him and show that you recognize the importance of your business relationship.

For negotiations to be successful, you need to be prepared for them. Think ahead about how and what you will talk about. Your task is to win the attention and trust of the interlocutor. Show restraint, be calm and friendly.

Experienced businessmen understand that much can be achieved by enterprise and intelligence, but not everything. Self-satisfied individuals who neglect the rules of business communication do not cause any feelings in the interlocutors, except for irritation. Success contributes only to those who are aware of the importance of observing etiquette.

Basic rules of business etiquette:

- Time costs money

In the business world, time is precious, so it's important to manage your time properly and respect someone else's. Punctuality and competent time management form the basis of all relationships in business. People who are constantly late for meetings, make them spend other people's time waiting for them, and mismanage their own time will not be effective employees and partners. Even a true professional in his field and a first-class speaker in the absence of punctuality is unlikely to gain trust and respect.

Both partners, and colleagues, and bosses will understand: in front of them is a person who is unreliable and does not value time. His constant excuses in this case will only aggravate the situation.

A simple conclusion follows from this. Mastering the basics of time management in business is essential. The ability to plan your own working day, distribute tasks by importance and urgency, assign routine tasks to others and subsequently control their execution - this is what a business person should strive for.

- Business gestures

This topic should be devoted to at least a book with vivid illustrations. The facial expressions and gestures of a person, his manners can tell more about a person than words. By the way a person moves, his environment will judge him. The gait of a successful person is confident and devoid of unnecessary sweeping movements. All movements, in turn, should be energetic, without fuss. A business person should have a straight posture and a confident look.

Business etiquette allows only one gesture of touching another person - a handshake. All other tactile gestures (hugs, pats, kisses) are possible only between close friends, relatives and long-term partners with many years of experience in cooperation. The handshake should be firm but gentle. [1] On the one hand, a sluggish, cold or wet hand from excitement during a handshake is not welcome. On the other hand, squeezing your hand tightly and shaking it for a long time is also not acceptable.

Controlling your own gestures and facial expressions is much more difficult than choosing the right words when communicating. And the sincerity and strength of a person's character are determined primarily by his non-verbal signs.

- Desktop as a reflection of character

If everything is laid out in places on a person's table, then order reigns in his head. The truth is old, but not losing its accuracy and relevance. It is on the employee's desktop that you can determine how well and efficiently he works. For example, here are descriptions of typical desktops:

1. a table chaotically littered with papers and covered with untouched dust;
2. absolutely clean table without unnecessary things;
3. an abundance of photographs of relatives and friends, souvenirs, flower vases and other personal items on the table;
4. Neat and strictly arranged stacks of papers and folders on the table.

Which of the owners of these tables will be most valuable to the employer?

- Competent speech and business writing style

The speech of a successful business person is devoid of "water", parasitic words and unnecessary lyrical digressions. She is even intonation, without antics and parody in her voice. All thoughts expressed are strictly to the point.

Having worked out oratorical skills, a person will learn how to write business letters. When writing formal letters, it is important not to overdo it with style - the lifeless, dry writing language will make it boring, making you want to throw the letter in the trash without reading it to the end.

- Respect for partners, colleagues and clients

Selfishness is out of place in any community, and the business community is no exception. A person who thinks only of himself and does not consider the interests of others will not enjoy respect. An employee closes the door in front of the very nose of the last client at the end of the working day, a colleague is talking loudly on the phone in the office and disturbs the rest, the boss scolds his subordinate in a boorish way - all these are examples of the lack of business etiquette, an integral part of which is respect for others.

- Compliance with trade secrets

Almost any commercial company has information, the disclosure of which employees is unacceptable. In light of this, the Soviet poster of 1941 "Don't Talk" (author - Nina Vatolina) becomes relevant again. It would fit perfectly into the office interiors of most organizations. [4]

The management is interested in immediately conveying to all employees the order on non-disclosure of trade secrets and collecting signatures from each member of the team. Of course, this will not guarantee the safety of sensitive data in secret. However, this measure will be part of business etiquette and an indicator of unreliable employees.

- The workplace needs to work

If you statistically evaluate the average working day of an average office, you get a rather depressing picture. It turns out that about 80% of the working time is spent by employees on conversations on abstract topics, tea parties, smoke breaks, social networks and other personal matters. Only 20% of the time is devoted directly to work tasks.

Valuable employees who perform their duties most of the working time achieve career growth as a result. This is one of the secrets of success.

- Ability to listen to the interlocutor

The ability to hear and listen to an opponent in the business world is a valuable gift that brings great profit. In business circles, this gift was even given a name: "rumor for money." Each client, colleague and partner always has something to tell about their problems or ideas. You need to have the ability to listen to everyone, understand him and offer something in return. This skill is also valued because it saves time, the most valuable resource in business.

- Telephone etiquette

Telephone communication remains one of the main ways of negotiating, and telephone and business etiquette is also important in this matter. It helps in the shortest possible time to establish relations and come to a positive result of the negotiations. Often, it is by telephone communication that they judge the reliability of a company.

A telephone conversation requires advance preparation. All questions that will be asked to the interlocutor are prepared in advance, all names, contact details, dates and dates are determined and specified. [6]

Do not use your work phone for personal purposes unless absolutely necessary. A person who neglects this rule gives the impression of a frivolous employee.

- Network etiquette ("netiquette")

The Internet has already fully fit into the system of business relationships. Any modern enterprise or organization in one way or another uses Internet channels for communication. And the business qualities of a company employee are determined, among other things, by knowledge of the etiquette of business correspondence, by the ability to comment on business articles and by the ability to competently process customer messages on the company's website.

At a minimum, each letter or appeal must be addressed to a specific person and signed with the name of the author. The letters must contain the full contact details of the company, including the postal address, phone number, contact details in social networks and instant messengers, the address of the corporate website, and the company's work schedule.

- Competent reception of delegations

The ability to receive a delegation according to protocol is a special section of modern business etiquette. The protocol is a long list of actions in the process of meeting, accommodating, introducing members of the delegation, their acquaintance with the host country. Volumetric specialized books are devoted to the rules of presenting gifts and souvenirs, behavior at a buffet table, holding presentations.

If the delegation is foreign, then in addition to protocol requirements, national business etiquette must also be observed.

- Conducting business negotiations

The ability to competently conduct negotiations with the obligatory achievement of the desired result is an important component of business communication etiquette. For successful negotiations, you need to set goals in advance, draw up a specific plan, and decide on a time and place that is convenient for both parties.

The goal of the first stage of negotiations is to capture the attention of the opposite side and establish trusting relationships. Each step in the negotiation process should be recorded and the results of the negotiation should be analyzed. The event ends after the achievement of the set goals.

- Building relationships between superiors and subordinates

Business etiquette requires the leader to treat his subordinates equally. There must be some distance between the boss and the subordinate. All comments must be made face to face. Public censure is possible only in cases where the employee ignored the once voiced remark.

Orders and current tasks should be issued to subordinates in the most clear, specific form. At the same time, it is necessary to provide feedback from employees in order to effectively evaluate and control the execution of instructions. [5]

It is necessary to give subordinates the opportunity to discuss the orders issued by the boss. This right to vote allows joint efforts to improve the solution of specific issues.

- Building relationships between employees in a team

Relations between colleagues largely determine the overall microclimate in the team. At the heart of a healthy atmosphere in the team are goodwill and respect for each other. If one of the colleagues stumbled and made a mistake, there is no need to publicly denounce him. Instead, it is etiquette to correctly point out mistakes, offering help if necessary.

All manifestations of mobbing, intolerance and hatred towards each other, as well as the establishment of romantic and other relationships that are not related to work, are unacceptable and will interfere with this work.

- Compliance with the dress code

As you know, a person is greeted by clothes. In the world of business, the first impression of a person is also formed by his appearance, the components of which are a foldable business suit, a neat hairstyle, and accessories that are in harmony with the clothes. In appearance, both the status of a person and his inner world are determined. Not only speech and behavior, but also clothing, hairstyle and accessories can provide comprehensive information about a person. The inner protest of the individual, the unwillingness to live according to the laws of society is reflected in a provocative and defiant appearance. Etiquette does not support this.

It is not for nothing that the corporate standards of the dress code of many large organizations are allocated a separate section in the sales book. If there is no explicit dress code in the organization, it is enough to adhere to the norms and unspoken rules adopted in the business environment.

Different people treat etiquette in different ways. At all times, this depended on the moral and ethical education, the moral development of the individual. The moral needs of a person include a moral attitude towards oneself and towards other people.

References:

1. Bovee, C. L., & Thill, J. V. (2021). *Business Communication Essentials* (8th ed.). Pearson.
2. Brinkert, R. (2017). Ethics Training in Business Communication Courses: Promoting Ethical Awareness Through Active Learning. *Business and Professional Communication Quarterly*, 80(2), 215-232
3. Guffey, M. E., & Loewy, D. (2020). *Essentials of Business Communication* (12th ed.). Cengage Learning.
4. Powell, A. (2015). *Mastering Business Etiquette and Protocol: A Professional Guide to Communicating with People at Work*. Kogan Page.
5. Sen, B., & Sen, P. (2016). Business Communication Etiquette in a Globalized World: Challenges and Strategies. *International Journal of Management*, 7(3), 207-215.
6. Shipley, M. F. (2018). *Business Etiquette: A Guide for the Indian Professional*. SAGE Publications India.

Biological Sciences

ВИДОВОЙ СОСТАВ ВОДНЫХ ЖУКОВ (COLEOPTERA: ADEPHAGA, POLYPHAGA) ГАРАБАХСКОЙ ТЕРРИТОРИИ АЗЕРБАЙДЖАНСКОЙ РЕСПУБЛИКИ

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В статье перечислены 11 видов водных жуков, относящихся к 3 семействам и 9 родам, зарегистрированным на территории Гарабаха в Азербайджане. Подотряд Adepnaga включает 8 видов, а подотряд Polyphaga-3 вида. Данное исследование основано на обобщении, имеющихся литературных данных.

Ключевые слова: водные жуки, Гарабах, фауна, распространение.

Введение

Водные жуки являются составной частью фауны пресноводных и соленых водоемов. Все водные жуки играют важную роль в экосистемах, они являются пищей для пресноводных рыб, земноводных, водоплавающих птиц, а также других беспозвоночных. Жуки обитают во всех типах водоемов, некоторые виды обитают в подводных пещерах, некоторые освоили термальные источники, очень соленые озера и ряд других экстремальных биотопов. Представители этой группы живут даже в морской среде, размножаясь на мелководье, в защищенных от волн районах. Большинство из них хищники.

Всего к подотряду Adepnaga относятся 11 родов, 8 из которых полностью или в основном представлены водными жуками. Это Amphizoidae, Meruidae, Aspityidae, Hygrobiidae, Halipidae, Gyrinidae, Noteridae и Dytiscidae (Löbl, Smetana, 2003). Группа водных жуков из подотряда Polyphaga включает 14 из 150 родов, которые считаются настоящими водными жуками и тех, которые в некотором смысле связаны с водной средой обитания - Helophoridae, Epimetopidae, Hydrochidae, Spercheidae, Hydrophilidae, Hydraenidae, Scirtidae, Elmidae, Dryopidae, Lutroseidae, Putogidae, Georissidae и Eulichadidae (Löbl, Smetana, 2004).

Никаких фаунистических исследований фауны водных жуков в Азербайджане до сих пор не проводилось. Ряд работ, относящихся к первой половине XX века, дают первые сведения об этой группе в Азербайджане. Это знаменитая работа Якобсона "Насекомые России и Западной Европы" (1905), а также несколько работ Зайцева (1927, 1928, 1945, 1946, 1947, 1953). Наряду с этими работами, данные по этой группе содержатся в трудах Богачева (1951), давшего общие сведения о водных жуках Азербайджана. Касымов в своих монографиях (1965, 1972) приводит список видов водных жуков Кавказа с указанием видов, встречающихся в Азербайджане, где ссылается на работы Зайцева (1927, 1928, 1945, 1946, 1947, 1953), Вейсига (1939), Богачева (1951). Современные каталоги водных жуков (Przewo Lanny, 2019; Nilsson & Hájek, 2019; Przewo Lanny, 2019; Hájek & Fery, 2019), также предоставляют информацию о видах из Азербайджана, кроме того, некоторая информация

об этой группе содержится в «Catalogue of Palearctic Hydrophiloidea (Coleoptera)» (Löbl & Smetana, 2003). Джентили и Шавердо (2016) сообщают о роде *Laccobius* Erichson 1837 из стран Южного Кавказа. Данная статья обобщает всю, имеющуюся, в настоящее время, информацию о водных жуках из Гарабаха на основе литературных данных.

МАТЕРИАЛ И МЕТОДЫ

Первый список водных насекомых Гарабаха был составлен с использованием опубликованных сведений. Для каждого вида указывается места регистрации в Азербайджане и общее распространение. Список видов приведен в соответствии с номенклатурой, используемой в каталогах Löbl, Smetana, 2003, 2004. Общее распространение взято из источников: Löbl & Smetana, 2003, 2004; Nilsson & Hájek, J. 2021; Przewozny, 2019; Hájek & Fery, 2019.

РЕЗУЛЬТАТЫ

Фауна водных жуков Гарабаха представлена 11 видами, относящихся к 2 подотрядам и 2 семействам. Подотряд Polyphaga включает 3 вида, а Adepnaga - 8 видов. К роду *Gyrinus* O.F. Müller, 1764 относятся 2 вида, роду *Agabus* Leach, 1817 - 2 вида, а рода *Aulonogyrus* Motschulsky, 1853 *Platambus* Thomson, 1859, *Bidessus* Sharp, 1882, *Nebrioporus* Régimbart, 1906, *Berosus* Leach, 1817, *Hydrochara* Berthold, 1827, *Anacaena* Thomson, 1859 включают по 1 виду.

Отряд COLEOPTERA

Подотряд ADEPHAGA

Семейство GYRINIDAE Latreille, 1810

Подсемейство GYRININAE Latreille, 1810

Род *Aulonogyrus* Motschulsky, 1853

Подрод *Aulonogyrus* Motschulsky, 1853

Aulonogyrus (Aulonogyrus) concinnus (Klug, 1834)

Aulonogyrus concinnus (Kl.): Касымов, 1972: 120

Распространение в Азербайджане: Астара, Агджебеди (Касымов, 1972).

Общее распространение: Бельгия, Босния Герцеговина, Булгарис, Хорватия, Россия, Чехия, Франция, Германия, Грузия, Греция, Италия, Македония, Нидерланды, Польша, Португалия, Словакия, Испания, Алжир, Афганистан, Кипр, Иран, Ирак, Казахстан, Ливан, Монголия, Саудовская Аравия, Сирия, Таджикистан, Турция, Узбекистан (Löbl, Smetana, 2003).

Род *Gyrinus* O.F. Müller, 1764

Подрод *Gyrinus* O.F. Müller, 1764

Gyrinus (Gyrinus) caspius Menetries, 1832

Gyrinus caspius Men.: Касымов, 1972: 120

Gyrinus caspius Menetries, 1832: Löbl, Smetana, 2003: 27

Gyrinus caspius Menetries, 1832: Hájek, Fery, 2019: 4

Распространение в Азербайджане: Реки: Лянкяран, Кура, Алазан, Габырры; Мингечавирское и Варваринское водохранилища; река Гарачай около Агджебеди; рыбные заводы – Верхняя Кура и Али Байрамлы (ныне Ширван), Барда, Астара, Мингечавир (Касымов, 1972; Hájek, Fery, 2019).

Общее распространение: Азербайджан, Армения, Бельгия, Босния Герцеговина, Булгарис, Беларусь, Хорватия, Россия, Дания, Эстония, Франция, Германия, Грузия, Греция, Италия, Литва, Нидерланды, Норвегия, Польша, Португалия, Словакия, Испания, Швеция Украина

Сербия и Черногория, Алжир, Марокко, Кипр, Иран, Ирак, Израиль, Казахстан, Ливан, Сирия, Турция, Туркменистан (Löbl, Smetana, 2003).

***Gyrinus (Gyrinus) suffriani* Scriba, 1855**

Gyrinus suffriani Scr.: Касымов, 1972: 120

Gyrinus suffriani Scriba, 1855: Löbl, Smetana, 2003: 28

Gyrinus suffriani Scriba, 1855: Hájek, Fery, 2019: 5

Распространение в Азербайджане: Варваринское водохранилище, река Кура около Мингечавира, водоемы Нефтечалинского рыбного завода; реки Гаргарчай и Халифачай около Шуши (Касымов, 1972).

Общее распространение: Азербайджан, Австрия, Бельгия, Булгарис, Хорватия, Чехия, Дания, Финляндия, Франция, Германия, Венгрия, Италия, Нидерланды, Польша, Норвегия, Россия, Швеция, Швейцария, Израиль, Ливан, Сирия, Турция (Löbl, Smetana, 2003).

Семейство DYTISCIDAE Leach, 1815

Подсемейство Agabinae Thomson, 1867

Триба Agabini Thomson, 1867

Род *Agabus* Leach, 1817

Подрод *Gaurodytes* Thomson, 1859

***Agabus (Gaurodytes) conspersus* (Marsham, 1802)**

Agabus luniger Kolenati, 1845:82

Agabus conspersus (Marsham, 1802): Касымов, 1972: 118.

Agabus conspersus (Marsham, 1802): Löbl, Smetana, 2003: 39

Распространение в Азербайджане: Агстафа, Гараязы (Чангаргёль), Шуша (Касымов, 1972).

Общее распространение: Азербайджан, Албания, Армения, Бельгия, Булгарис, Хорватия, Дания, Франция, Германия, Великобритания, Грузия, Греция, Венгрия, Ирландия, Италия, Македония, Нидерланды, Польша, Португалия, Испания, Россия, Швеция, Украина, Сербия и Черногория, Алжир, Канарские острова, Египет, Ливия, Марокко, Тунис, Афганистан, Кипр, Индия, Иран, Ирак, Иордания, Кыргызстан, Кувейт, Казахстан, Ливан, Пакистан, Египет, Сирия, Таджикистан, Турция, Туркменистан, Узбекистан, Западная Сибирь, Китай (Löbl, Smetana, 2003).

***Agabus (Gaurodytes) faldermanni* Zaitzev, 1927**

Agabus faldermanni Zaitzev, 1927:22

Gaurodytes faldermanni Zaitz. (Касымов, 1972: 118)

Agabus (Gaurodytes) faldermanni Zaitzev, 1927: Löbl, Smetana, 2003: 39

Распространение в Азербайджане: Нагорный Гарабах (Зайцев, 1927), Азербайджан (Касымов, 1972).

Общее распространение: Азербайджан, Иран, Израиль, Ливан, Сирия, Турция (Löbl, Smetana, 2003).

Род *Platambus* Thomson, 1859

***Platambus lunulatus* (Fischer von Waldheim, 1829)**

Colymbetes lunulatus Fischer von Waldheim, 1829:26

Platambus lunulatus (Fischer von Waldheim, 1829): Касымов, 1972: 118

Platambus lunulatus (Fischer von Waldheim, 1829): Nilsson, Hájek, 2021: 12

Распространение в Азербайджане: Шуша, Гейгёль, Загатала (Касымов, 1972).

Общее распространение: Азербайджан, Армения, Грузия, Греция, Россия, Турция, Египет, Иран, Ливан (Nilsson, Hájek, 2021)

Подсемейство Hydroporinae Aubé, 1836

Триба Bidessini Sharp, 1882

Род *Bidessus* Sharp, 1882

***Bidessus alienus* Zimmermann, 1919**

Bidessus alienus Zimmermann, 1919: Касымов, 1972: 115

Bidessus alienus Zimmermann, 1919: Nilsson, Hájek, 2021: 24

Распространение в Азербайджане: Лянкяран (Зайцев, 1927), Барда (Касымов, 1972).

Общее распространение: Азербайджан, Хорватия, Македония, Молдова, Россия, Иран, Казахстан, Туркменистан (Nilsson, Hájek, 2021).

Триба Hydroporini Aubé, 1836

Род *Nebrioporus* Régimbart, 1906

***Nebrioporus depressus* (Fabricius, 1775)**

Potamonectes depressus (Fabr.): Касымов, 1972: 117

Распространение в Азербайджане: Барда (Касымов, 1972).

Общее распространение: Беларусь, Чехия, Дания, Эстония, Финляндия, Великобритания, Германия, Венгрия, Ирландия, Латвия, Литва, Польша, Норвегия, Россия, Словения, Швеция, Украина, Монголия, Китай (Nilsson, Hájek, 2021).

Подотряд POLYPHAGA Emery, 1886

Семейство HYDROPHILIDAE Latreille, 1802

Посемейство Hydrophilinae Latreille, 1802

Триба Verosini Mulsant, 1844

Род *Verosus* Leach, 1817

Подрод *Verosus* Leach, 1817

***Verosus (Verosus) signaticollis* Charpentier, 1825**

Verosus signaticollis Charp.: Касымов, 1972: 124

Распространение в Азербайджане: Агстафа, Гараязы (Чангаргёль), река Гаргарчай около Агджебеди; рыбоводческое хозяйство в Нефтчале (Касымов, 1972).

Общее распространение: Европа, Алжир, Марокко, Тунис, Афганистан, Иран, Казахстан, Таджикистан, Туркменистан, Узбекистан, Западная Сибирь (Przewoźny, 2019).

Триба Hydrophilini Latreille, 1802

Род *Hydrochara* Berthold, 1827

***Hydrochara flavipes* Steven, 1808**

Hydrophilus flavipes Stev. : Касымов, 1972: 124

Hydrochara flavipes Steven, 1808: Przewoźny, 2019: 19

Распространение в Азербайджане: рыбоводческое хозяйство в Нефтчале, Барда (Касымов, 1972).

Общее распространение: Азербайджан, Грузия, Европа, Египет, Марокко, Афганистан, Иран, Ирак, Кувейт, Казахстан, Таджикистан, Туркменистан, Турция, Узбекистан, Китай (Przewoźny, 2019)

Подсемейство Chaetarthriinae Bedel, 1881

Триба Anacaenini M. Hansen, 1991

Род *Anacaena* Thomson, 1859

Anacaena limbata Fabricius, 1792

Anacaena limbata F.: Касымов, 1972: 122

Распространение в Азербайджане: Шуша (Касумов, 1972).

Общее распространение: Европа, Кавказ, Алжир, Иран, Израиль, Казахстан, Сирия, Турция, Западная Сибирь, Дальний Восток (Przewoźny, 2019).

Список литературы:

Богачев А.Б. 1951. Животный мир Азербайджана. Баку, 2, 322-324.

Касумов А.Г. 1965. Гидрофауна Нижней Куры и Мингечаурского водохранилища. Баку, 1-372.

Касумов А.Г. 1972. Пресноводная фауна Кавказа. Баку: «Elm», 1-286.

Якобсон Г.Г. 1909. Жуки России и западной Европы (Beetles of Russia and Western Europe). Санкт-Петербург, 1024 ст + 83.

Hájek, J., Fery, H. 2019. Catalogue of Palearctic Gyrinidae (Coleoptera). Internet version 2019-01-01.

Löbl, I., Smetana, A. (Eds.) 2003. Catalogue of Palaearctic Coleoptera. Volume 1. Archostemata – Mухophaga – Adephaga. Stenstrup: Apollo Books, 819 pp.

Löbl, Smetana, 2004. Catalogue of Palaearctic Coleoptera. Volume 2. Hydrophiloidea – Histeroidea – Staphylinoidea. Apollo Books, Stenstrup, 942 pp.

Nilsson, A.N., Hájek, J. 2019. Catalogue of Palearctic Dytiscidae (Coleoptera). Internet version 2019-01-01.

Nilsson, A.N., and Hájek, J. 2021a. 'Catalogue of Palearctic Dytiscidae (Coleoptera)', Internet version, <http://www.waterbeetles.eu>

Nilsson, A.N., and Hájek, J. 2021b., 'A World Catalogue of the Family Dytiscidae, or the Diving Beetles (Coleoptera, Adephaga)', Internet version, <http://www.waterbeetles.eu>

Przewoźny, M. 2019. Catalogue of Palearctic Hydrophiloidea (Coleoptera). Internet version 2019-01-01.

Veysig, C.Ya. 1939. Materials to microscopic hydrofauna of Caucasus and its zoogeographical analysis. Thesis of Sci. D., Azerb. Ped. Inst., Baku. (in Russian).

Zaitzev, F.A. 1927. Die Dytiscidenfauna von Kaukasusländern. Travaux de la Station Biologique du Caucase du Nord 2(1): 1-42. [In Russian, German title.]

Zaitzev, F.A. 1928. Review of the Caucasus whirlwinds (Coleoptera, Gyrinidae). Works of the North Caucasus Hydrobiological Station at the Gorsky Agricultural Institute. - Vladikavkaz, 2(2-3):43-48. Zaitzev, F.A. 1945. To the fauna of swimmers of Transcaucasia (Coleoptera, Dytiscidae). Reports of the Academy of Sciences of Arm. SSR. 4(3): 87-91.

Zaitzev, F.A. 1946. Representatives of Fam. Haliplidae in the fauna of Transcaucasia and neighboring countries (Coleoptera). Works of the Zoologist. Institute of the Academy of Sciences of the Georgian SSR. (6): 285-290.

Zaitzev, P.A. 1947. Vodyanya zhuki basseina reki Zangi i nekotorykh drugikh vodoemov ASSR. Trudy Sevanskoj Gidrobiologicheskoy Stantsii, 8: 87–95. [in Russian].

Zaitzev, P.A. 1953. Vodnye zhestkokrylye v faune Gruzii. Trudy Instituta Zoologii Akademii Nauk Gruzinskoy SSR 11: 87–126 [in Russian]

Technical Sciences

The features of the development of a video game "Unusual adventure" on unity platform

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ОСОБЛИВОСТІ РОЗРОБКИ ВІДЕОГРИ «UNUSUAL ADVENTURE» НА ПЛАТФОРМІ UNITY

Анотація. У даній статті наведено етапи розробки відеогри в жанрі «Платформер» у середовищі Unity з використанням мови програмування C#. Основними завданнями роботи є вивчення ігрових проектів у різних жанрах, їх ключових особливостей та механік, обґрунтування вибору платформи та мови програмування для створення відеогри, розробка геймплею та графічного інтерфейсу, логіки гри, обробка колізій, управління звуками та інші програмні аспекти.

Ключові слова: UNITY, C#, ПЛАТФОРМЕР, ІГРИ, МОДИФІКАЦІЯ, МЕХАНІКА.

Вступ. Розробка комп'ютерних ігор є досить актуальною, оскільки ігрова індустрія набуває все більшого значення як розважальної, освітньої та комунікативної платформи. Важливим етапом у розробці гри є вибір відповідного середовища та мови програмування,

а також вирішення завдань, пов'язаних з реалізацією геймплею та створенням необхідних функціональних елементів.

У жанрі платформерів на *Unity* було створено значну кількість ігор, таких як "Hollow Knight", "Celeste", "Cuphead", "Super Meat Boy" та інші. Однак, при дослідженні даних ігор було виявлено деякі проблеми, з якими можуть стикнутись розробники 2D-платформерів на *Unity*, основними з яких є складність реалізації складних механік геймплею, використання фізики в грі та забезпечення оптимальної продуктивності гри на різних платформах.

Предметом дослідження є розробка головного меню, рух гравця, система збору монет, та інші елементи геймплею. Необхідність даної розробки обумовлена актуальністю та зростанням інтересу до комп'ютерних ігор.

Постановка проблеми. Основним завданням даної роботи є розробка платформера «Unusual Adventure» на *Unity* з використанням мови програмування *C#*. Потрібно реалізувати всі основні механіки геймплею, а саме допомогти головному герою пройти рівень від початку і до кінця, перестрибуючи платформи, збираючи монети та уникаючи перешкод на шляху. Дизайн рівня оформлено власноруч з можливістю його проходження до кінця. Використано при розробці готові асети для графіки та звуків. Гра повинна бути доступною для проходження на платформі ПК.

Результати досліджень. Робота з анімаціями в *Unity* є важливим аспектом розробки відеоігор, включаючи платформери. *Unity* надає інструменти для створення, керування та інтеграції анімацій в гру.

Першим кроком є створення назви анімації за допомогою модифікації «*Animation*», імпорту спрайтів, які будуть використовуватись для анімації персонажів, об'єктів чи різних ефектів у грі.

Спрайт – це двовимірне зображення або графічний елемент, який використовується для відображення об'єктів, персонажів, тлів та інших елементів гри [1].

Для кожного об'єкту в грі, який має рухатися, потрібно створювати анімацію, що складається з кількох кадрів, а саме:

- початкова позиція об'єкту;
- позиція його наступного руху (одна або декілька);
- кінцева позиція.

Також для об'єктів і головного героя потрібно додати компонент «*Box Collider 2D*» або «*Circle Collider 2D*» для визначення меж, до яких можна торкатися.

Для реалізації руху об'єкту «*Mace*» потрібно записати в коді такі параметри як діапазон руху «*range*» та швидкість «*speed*». Початкова позиція елемента задається за допомогою функції «*Start*» і описується таким методом:

```
startingY = transform.position.y
```

Щоб об'єкт рухався по траєкторії вверх-вниз, задаємо «*Vector2*» для напрямку руху та трансформуємо напрямок об'єкту відповідно вже по описаних даних:

```
transform.Translate(Vector2.up * speed * Time.fixedDeltaTime * dir);
if (transform.position.y < startingY || transform.position.y > startingY + range)
dir *= -1;
```

Схема реалізації руху об'єкта «*Mace*» даної гри представлена на рис.1, анімація об'єкту наведена на рис.2.

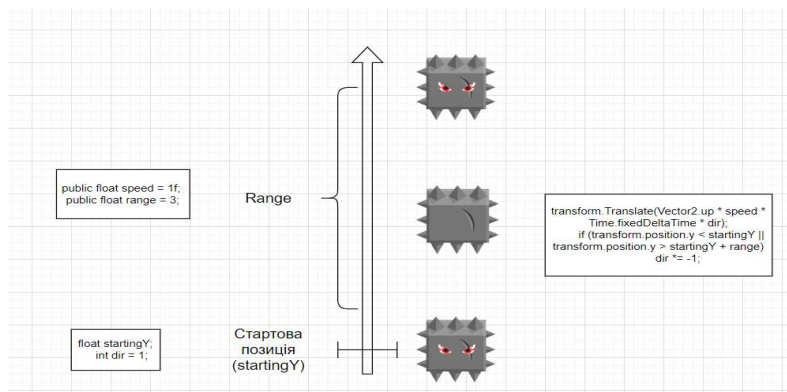


Рисунок 1 – Схема реалізації руху об'єкта «Масе»

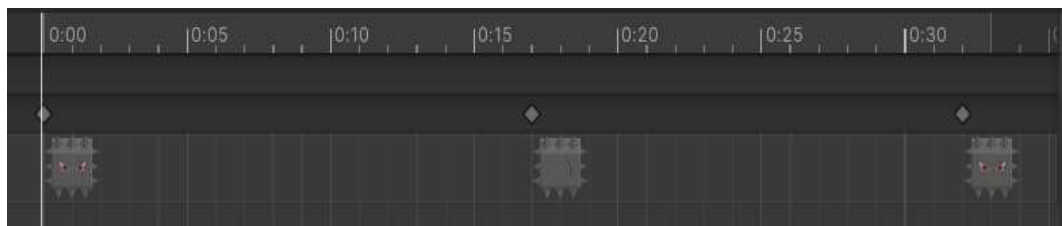


Рисунок 2 – Анімація об'єкта «Масе»

Щоб розпочати розробку гри, потрібно створити новий проект (сцену), а далі кількість сцен можна додавати для створення нових рівнів гри.

У даному середовищі додані такі інструменти, за допомогою яких блоки занесені в «*Tile Palette*» можна додавати на сцену, видаляти, переміщувати, робити заливку фону та інше.

Щоб персонаж відчував, що рухається по об'єкту, то треба додати компонент «*Tilemap Collider 2D*» вже до створеного об'єкту, він розміщується по всій поверхні, яка буде побудована користувачем. Потім помістити на задньому фоні зображення, а фото переміщуємо в створений порожній об'єкт на сцені середовища.

Модифікація «*Tile Palette*» зображена на рис. 3.

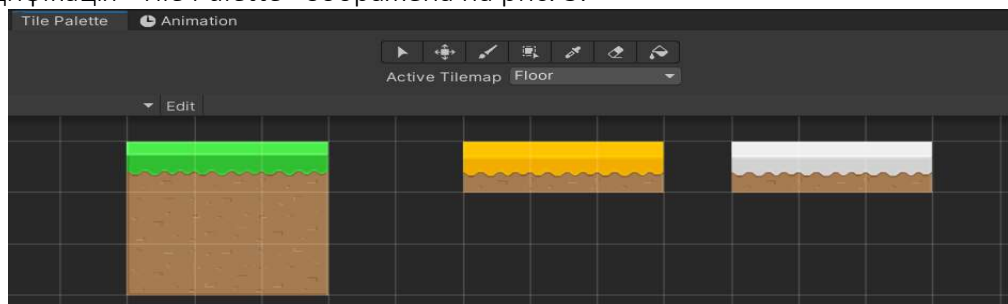


Рисунок 3 – Модифікація «*Tile Palette*»

Для додавання таких об'єктів як дерева, кущі, квіти та ін., до кожного створюємо порожній об'єкт в ієрархії середовища, надаємо можливість вставляти фото і змінюємо тільки порядок відображення на сцені, щоб даний об'єкт був на передньому фоні, а кількість їх можна завжди збільшувати шляхом копіювання елементів за допомогою клавіш «*Ctrl + D*»

Головний персонаж додається до гри так само як і попередні об'єкти, але для контактування з іншими треба додати таку компоненту як «*Box Collider 2D*» для визначення його меж контактування, а компоненту «*Rigidbody 2D*» – для фізики гравця та скрипт на мові програмування C# вже з усіма фрагментами коду.

Об'єкти, які будуть заважати гравцеві проходити рівень, будучи перешкодою в подальшому пересуванні головного героя, додаються в сцену так само як і персонаж, тільки з деякими відмінностями, а саме з додаванням різних компонент тому, що до одних об'єктів

записуються скрипти, а до інших – ні. Також вони можуть бути рухомими, перешкоджаючи гравцю переходити деяку ділянку рівня, а також нерухомими, коли гравцю потрібно тільки перестрибнути.

Рух головного героя також можна відтворити різними способами, зокрема:

- за допомогою скриптів на мові програмування C#;
- в середовищі *Unity* з використанням внутрішніх функцій.

При розробці гри було обрано комбінований варіант з використанням внутрішніх функцій та написанням скриптів для відтворення руху персонажа. На самому початку потрібно створити новий компонент «*Input Actions*», в якому створюється основний тип керування гравцем. В самій компоненті налаштовуються і додається кількість дій, які може робити гравець в грі.

Для руху персонажу створюється окрема дія, а далі записуються кнопки за допомогою яких гравець може рухати персонажем вліво і вправо по горизонталі. Все це виконується за допомогою клавіш «A», «B», «*Left Arrow*», «*Right Arrow*», також створюється дія, при якій персонаж стрибає, натиснувши клавішу «*Space*».

Основні елементи руху задаються з допомогою скриптів, написаних на мові програмування C#. В коді описується загальна швидкість персонажу, кількість стрибків:

```
public float speed = 400;
public float jumpForce = 5;
```

Для розвороту персонажу в іншу сторону задається наступна команда:

```
isFacingRight = !isFacingRight;
transform.localScale = new Vector2(transform.localScale.x * -1,
transform.localScale.y);
```

Задання описаних вище дій для персонажу наведено на рис.4.

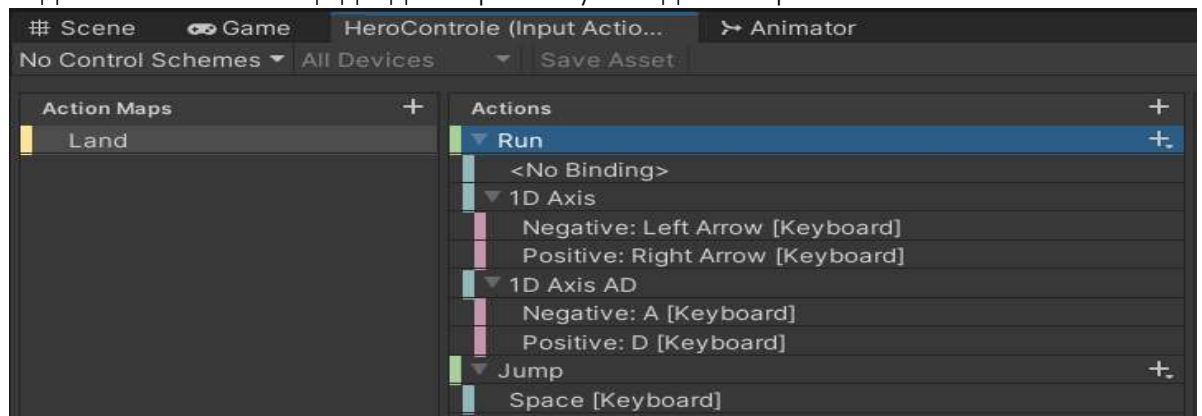


Рисунок 4 – Задання дій для персонажу

Створення гри продовжується додаванням інших різних елементів, пов'язаних з механікою гри та переходами між сценами.

До рівнів було прийнято рішення додати можливість збирання гравцем деяких елементів, а саме монет, які будуть розташовані в різних місцях по периметру рівню. Дана функція реалізована тільки для збирання монет, подальших дій з ними поки не реалізовано.

З функціоналу на поверхні сцени також додається кнопка паузи, за допомогою якої можна зробити перезавантаження рівня, продовження з того самого місця, де в деякий момент натиснута пауза та вихід в головне меню. Сама кнопка додається на сцену аналогічно з додаванням фото монети, але тільки замість структури «*Image*» задається «*Button*», змінюється розташування на верхній правий кут сцени та розміри задаються під фото.

Всі кнопки, які створені в грі мають свій функціонал, одні відповідають за вихід, інші – за продовження гри та перезавантаження. До кнопок в ієрархії проекту додається код, в

якому і записані всі кнопки, при натисканні яких відбувається певна дія, яка була вибрана в інспекторі для подальшого розвитку ситуації.

Для перезавантаження рівня та виходу в головне меню в коді описується завантаження сцени, яку потрібно, записується її індекс в інспекторі. При перезавантаженні рівня потрібно записати активну сцену, на якій знаходиться гравець, а для переходу в меню гри відповідно індекс, де знаходиться сцена з головним меню.

У даній відеогрі також реалізовані деякі появи оголошень після того, коли рівень завершився, коли гравець отримав успішний результат чи навпаки. Якщо гравець дійшов до фінішу, то торкаючись його виводиться панель з відповідним повідомленням завершення рівня і функціоналом як в програші, тобто перезавантаження та вихід в головне меню.

Панелі з повідомленням програшу чи виграшу рівня зображені відповідно на рис. 5 та рис.6.

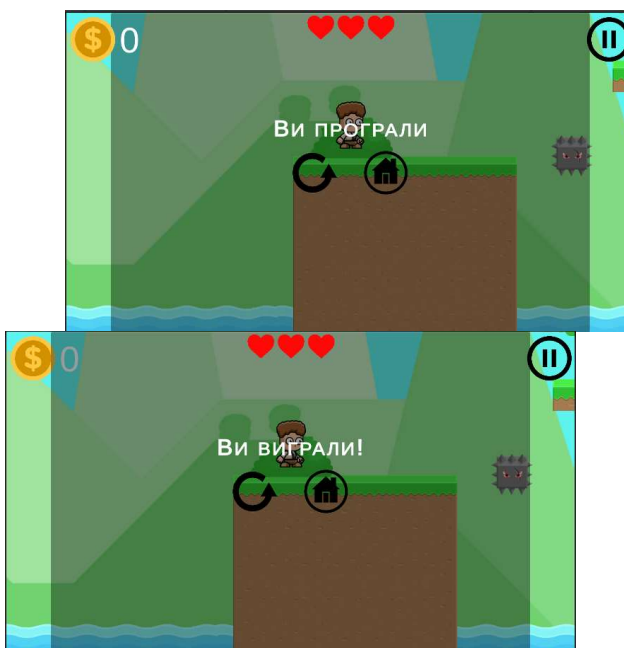


Рисунок 5 – Панель програшу

Рисунок 6 – Панель виграшу

Звуковий інтерфейс даної розробки використовує окремі дії персонажу в грі та інший функціонал, зокрема, стрибок гравця, збирання монет, виграшу та програшу.

За допомогою коду налаштовуються аудіо джерела для кожного звуку з масиву *sounds*. До кожного аудіо джерела додається компонент *AudioSource*, налаштовується звуковий файл «*clip*», гучність «*volume*», висота тона «*pitch*» та встановлюється режим повтору «*loop*». Також метод *Play* дозволяє відтворити заданий файл зі звуком, а метод *Stop* зупинити його.

Головне меню відеогри «Unusual Adventure» створено як окрема сцена в проєкті зі своїм функціоналом. На сцені зображений фон, кнопки які виконують різні функції і логотип проєкту. Кнопка вибору рівня дозволяє вибрати один зі створених рівнів, вона завантажує ту сцену, на який індекс натисне гравець при виборі: *SceneManager.LoadScene(index)*; кнопка виходу закриває гру: *Application.Quit()*.

Вигляд головного меню проекту зображено на рис. 7.



Рисунок 7 – Головне меню проекту

Висновки. В рамках даної роботи було розроблено та реалізовано головне меню гри, яке включає в себе елементи інтерфейсу такі як: кнопки, зображення та текст, забезпечуючи навігацію та візуальне представлення інформації гравцю.

Весь процес розробки пов'язаний з програмуванням, що мало вирішальний вплив на реалізацію геймплейних елементів гри в жанрі платформера на Unity. Програмування включало в себе створення логіки руху гравця, взаємодії з платформами, збір монет та долаття перешкод.

В результаті були створені: логіка руху, обробка колізій, управління анімаціями, кнопками та звуками. Мова програмування C# дозволила реалізувати всі необхідні функції та логіку гри. Також реалізована функціональність кнопок таких як: кнопка паузи, відтворення, перезапуску гри та виходу в головне меню. Крім цього розроблена система управління звуками, що забезпечує відтворення відповідних звукових ефектів у різних ситуаціях гри.

Виконання даної роботи має науково-практичне значення, оскільки вона дозволить поглибитися в процес розробки комп'ютерних ігор і отримати практичні навички використання платформи Unity та мови програмування C#.

Список використаних джерел і літератури

1. Copyright © 2021 Unity Technologies. опубл. 28.04.2023 Unity Documentation [Електронний ресурс]. — Режим доступу: <https://docs.unity3d.com/Manual/index.html>
2. Jasper Flick. Catlike Coding. C# and Shader Tutorials for the Unity Engine [Електронний ресурс]. — Режим доступу: <https://catlikecoding.com/unity/tutorials/>
3. Copyright © 2023 Unity Technologies. Unity Asset Store [Електронний ресурс]. — Режим доступу: <https://assetstore.unity.com/>

AN INVESTIGATION OF FACTORS INFLUENCING THE CRIME RATE IN KAZAKHSTAN

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Abstract: This article delves into the elements contributing to criminal behavior in Kazakhstan. The study centers on the average crime rate observed from 2003 to 2022. Education is identified as a primary factor influencing the crime rate, with a focus on the Gross enrolment ratio for both men and women as key variables in the research. Additionally, the analysis also considers several other variables that could impact the country's criminal dynamics, such as poverty, Index Gini, inflation, unemployment, divorce rate, and nominal income rate. The results indicate that education plays a beneficial role in reducing crime. Poverty is found to have a positive influence on the increase of criminal activities. Moreover, funnily enough the divorce rate is associated with a growth in crime occurrences.

Key words: Crime rate; Kazakhstan; Data; empirical analysis.

Introduction

In the ranking of countries by the crime index at the beginning of 2023, Kazakhstan took 48th place out of 142. The index of Kazakhstan was 52.7. The higher the index, the higher the crime rate in the country.[1]

The index estimates the overall crime rate in a country based on surveys. The compilers of the rating consider the level of crime less than 20 to be very low, from 20 to 40 - low, from 40 to 60 - moderate, from 60 to 80 - high, and, finally, more than 80 - very high.

Among the CIS countries, a higher crime rate than in Kazakhstan was recorded in Belarus and Kyrgyzstan, while Moldova, Ukraine, Russia and Uzbekistan are considered safer.[2]

According to Minister of Internal Affairs of Kazakhstan, Marat Akhmetzhanov, Astana is the anti-leader of the rating in terms of the number of crimes in the country. He said: "The number of crimes in the capital for 10 thousand people is 127. This is the highest figure in the country. The reason is that it is a metropolis." He also noted that 80% of criminals are unemployed, 73% do not have a professional or higher education, 50% of crimes against a person are committed in a state of intoxication.[3]

The level of education or alcohol intoxication affects the commission of a crime. This is explained quite simply: due to lack of education, the ability to realize what is happening is lost, there is no possibility of achieving the desired. That is, a low standard of living is incommensurable with the ambitions that a person puts forward.

¹ Crime index by Country 2023. https://www.numbeo.com/crime/rankings_by_country.jsp?title=2023

² «Самые преступные» страны: на каком месте Казахстан? (06.02.2023)

<https://ranking.kz/digest/world-digest/samye-prestupnye-strany-na-kakom-meste-kazahstan.html>

³ Астана – антилидер рейтинга по количеству преступлений в Казахстане. (02.06.2023)

<https://kz.kursiv.media/2023-06-02/zhr-prestupnost/>

So, in 2020, 76,519 people committed crimes, among them 63,324 are unemployed, 5,372 are workers and 1,257 are civil servants, while only 7,969 people had higher education.[4]

According to the Bureau of National Statistics, gross enrollment in higher education (the number of university students in relation to population aged 18-22) after the maximum index of 66.98 in 2019 is decreasing annually and amounted to 62.64 in 2021. At the same time, this indicator for women is significantly higher than for men: 69.24 versus 56.34.

Minister of Science and Higher Education of Kazakhstan, Sayasat Nurbek reported that there are 22 thousand scientific personnel in the country, out of only 36% of them are young people under the age of 35 per million population accounts for 1172 scientists. Compared to 1990, this figure has decreased by twice.[5]

This trend could potentially lead to adverse consequences for crime rates in Kazakhstan. Thus, to enhance national security and diminish criminal activities, it is imperative to boost investment in education, particularly focusing on the educational growth of the youth.

Literature review:

Allison J.P. carries out an investigation into the economic factors that influence crime rates, including variables like the unemployment rate and education level. The findings suggest a positive correlation between the unemployment rate and crime rates.[6]

According to Harlow C. W., there is a significant and inverse relationship between educational achievement and different crime metrics.[7] In 1997, approximately 75 percent of state and 59 percent of federal prison inmates in the United States did not possess a high school diploma. Similarly, in 2001, over 75 percent of convicted individuals in Italy had not finished high school[8], while in the United Kingdom, men aged twenty-one to twenty-five without an educational qualification (dropouts) had incarceration rates more than eight times higher compared to those with a qualification.[9]

In a comparative international context, Krohn M.D. examines the link between inequality, unemployment levels, and crime rates. The study explores whether countries with high unemployment and inequality rates also experience elevated crime rates. Homicide, property, and total crime rates are analyzed as functions of gross national product (GNP) per capita, unemployment rate, and Gini coefficient. The results indicate that neither unemployment rate nor economic inequality significantly affect crime rates in the expected direction. Instead, they exhibit negative impacts on property and total crime rates, while demonstrating a positive association with the homicide rate.[10]

In their study, Glaeser and Sacerdote investigate the issue of violent crimes in municipal cities within the United States and discover a notable 79% increase in such crimes in metropolitan areas when compared to other cities. They reinforce their findings with compelling arguments. One of the main factors is that big cities offer greater financial incentives for criminal activities.

⁴ Почему люди совершают преступления и можно ли это предотвратить? (24.05.2021)

<https://the-steppe.com/razvitie/pochemu-lyudi-sovershayut-prestupleniya-i-mozhno-li-eto-predotvratit>

⁵ В Казахстане снижается индекс охвата высшим образованием.(10.11.2022)

<https://kapital.kz/gosudarstvo/110279/v-kazahstane-snizhayet-sya-indeks-okhvata-vysshim-obrazovaniyem.html>

⁶Allison, J. P. (1972). Economic factors and the rate of crime. *Land Economics*, 48(2), 193-196.

⁷Harlow, C. W. (2003). *Education and correctional populations* (Vol. 12). Washington, DC: US Department of Justice, Office of Justice Programs.

⁸Buonanno, P., & Leonida, L. (2006). Education and crime: evidence from Italian regions. *Applied Economics Letters*, 13(11), 709-713.

⁹Machin, Stephen, Olivier Marie, and SuncicaVujic. 2010. "The Crime Reducing Effect of Education." Working Paper, University College London, August.

¹⁰Krohn, M. D. (1976). Inequality, unemployment and crime: A cross-national analysis. *The Sociological Quarterly*, 17(3), 303-313.

For instance, with a higher concentration of affluent individuals in metropolitan areas, there is a higher likelihood of robberies targeting their homes. The authors draw upon victimization data from 1989 to demonstrate that crime yields a more significant return in metropolitan areas compared to other cities.[11]

Numerous research works explore the correlation between inflation and crime rates and consistently reveal a statistically significant positive relationship between the two.[12]

In their empirical models, many scholars incorporate the poverty line or indicators of inequality (such as the Gini coefficient).[13]

Econometric model

Since we are exploring the possible factors that have impact on the crime rate, “Crime rate” is the dependent variable in this study. The independent variables that could influence the dependent variable are “Poverty”, “Index Gini”, “Inflation rate”, “Unemployment rate”, “Gross enrollment ratio of men”, “Gross enrollment ratio of women”, “Divorce rate” and “Nominal Income rate”.

The econometric model that is used for analysis is the multiple regression model.

Our model consists of 8 explanatory variables that should be tested. The type of data is time series. The time interval for the dataset obtained is between 2003-2022 years. The econometric equation is:

$$CRIME_{RATE} = \beta_0 + \beta_1 \times POVERTY + \beta_2 \times INDEX_{GINI} + \beta_3 \times INFLATION + \beta_4 \times UNEMPLOYMENT + \beta_5 \times GERM + \beta_6 \times GERW + \beta_7 \times DIVORCE_{RATE} + \beta_8 \times NI_{RATE} + u$$

$CRIME_{RATE}$ – the rate of crime.

$POVERTY$ – the rate of poverty.

$INDEX_{GINI}$ – the statistical measure used to represent income or wealth inequality within a population in Kazakhstan.

$INFLATION$ – the inflation rate,

$UNEMPLOYMENT$ – the unemployment rate,

$GERM$ – gross enrollment ratio of men in Kazakhstan,

$GERW$ – gross enrollment ratio of women in Kazakhstan.

$DIVORCE_{RATE}$ – the rate of divorce within population.

NI_{RATE} – the rate of nominal income,

u – error term.

What are the **hypotheses** we should test during the research?

The null hypotheses:

- There is no effect of poverty on the crime rate in our country.

Null: $H_0: \beta_1 = 0$

Alternative: $H_1: \beta_1 \neq 0$

- There is no relationship between the income inequality and the crime rate in Kazakhstan.

Null: $H_0: \beta_2 = 0$

Alternative: $H_1: \beta_2 \neq 0$

- There is no correlation between the inflation rate and the crime rate in Kazakhstan.

Null: $H_0: \beta_3 = 0$

Alternative: $H_1: \beta_3 \neq 0$

¹¹Glaeser, E. L., & Sacerdote, B. (1999). Why is there more crime in cities?. *Journal of political economy*, 107(S6), S225-S258.

¹²Long, S. K., & Witte, A. D. (1981). Current economic trends: implications for crime and criminal justice. *Crime and criminal justice in a declining economy*, 69-143.

¹³Fajnzylber, P., Lederman, D., & Loayza, N. (2002). Inequality and violent crime. *The journal of Law and Economics*, 45(1), 1-39.

- There is no effect of the unemployment rate on the crime rate in our country.

Null: $H_0: \beta_4 = 0$

Alternative: $H_1: \beta_4 \neq 0$

- There is no relationship between the gross enrollment ratio of men and the crime rate in Kazakhstan.

Null: $H_0: \beta_5 = 0$

Alternative: $H_1: \beta_5 \neq 0$

- There is no correlation between the gross enrollment ratio of women and the crime rate in Kazakhstan.

Null: $H_0: \beta_6 = 0$

Alternative: $H_1: \beta_6 \neq 0$

- There is no effect of the divorce rate on the rate of crime in the country.

Null: $H_0: \beta_7 = 0$

Alternative: $H_1: \beta_7 \neq 0$

- There is no relationship between the nominal income rate and the crime rate in Kazakhstan.

Null: $H_0: \beta_8 =$

Alternative: $H_1: \beta_8 \neq 0$

Empirical analysis

The first thing to be done during the analysis part is to check if there is a correlation between independent variables to avoid multicollinearity.

Multicollinearity test:

VARIABLES	Crime rate	Poverty	Index Gini	Inflation	Unemployment	GERM	GERW	Divorce rate	NIR
Crime rate	1								
Poverty	-0,5285	1							
Index Gini	-0,5244	0,7439	1						
Inflation	-0,2084	-0,0865	-0,0232	1					
Unemployment	-0,6472	0,9171	0,7202	0,0254	1				
GERM	0,0357	-0,2320	0,1081	-0,3498	-0,3962	1			
GERW	-0,2456	0,1733	0,4806	-0,3508	0,0686	0,8720	1		
Divorce rate	0,8628	-0,7260	-0,5936	-0,3417	-0,8090	0,3205	-0,0245	1	
NIR	-0,5484	0,4676	0,6688	0,5496	0,5966	-0,2417	0,0713	-0,6469	1

As it can be seen from the table, there are some correlation coefficients that are greater than 0.70, which means that we must remove some variables to get rid of the multicollinearity.

Variables	Poverty	Inflation	GERM	Divorce rate	NIR
Poverty	1				
Inflation	-0,0865	1			
GERM	-0,2320	-0,3498	1		
Divorce rate	-0,7260	-0,3417	0,3205	1	
NIR	0,4676	0,5496	-0,2417	-0,6469	1

Hence, we removed the Index Gini, the unemployment rate, and the gross enrollment ratio of women from the dataset.

Regression output:

<i>Regression Statistics</i>	
Multiple R	0,921706569
R Square	0,849542999
Adjusted R Square	0,795808355
Standard Error	43367,27118
Observations	20

The coefficients interpretation:

Multiple R = 0.9217, which tells that there is a strong positive correlation between the crime rate and independent variables.

R Square = 0.8495, which means that 85% of the variance in the crime rate in Kazakhstan is explained by the independent variables included in the model.

ANOVA results:

<i>ANOVA</i>	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	5	1,48671E+11	29734126599	15,80996814	2,51498E-05
Residual	14	26330082937	1880720210		
Total	19	1,75001E+11			

The F-value for the regression model that is shown is 15,80996814, and the associated significance level (p-value) is approximately 0,00002515. To find the significance of the model, the calculated F-value was compared with the critical F-value. So, such a small p-value says that the probability of observing such a large F-value under the null hypothesis can be equated to zero. Hence, the regression model is statistically significant, suggesting that there is a strong relationship between the independent and the dependent variable in the research model.

If we look at the Regression results, we will see that "Poverty", "Gross enrollment ratio of men" and "Divorce rate" have p-values less than 0.10 and the rest of the variables have p-values greater. Hence, there is enough evidence to reject the null hypotheses "There is no effect of poverty on the crime rate in our country", "There is no relationship between the gross enrollment ratio of men and the crime rate in Kazakhstan" and "There is no effect of the divorce rate on the rate of crime in the country" at 10% significance level. 10% significance level is used as the sample size is relatively small, and the goal is to increase the likelihood of identifying meaningful relationships.

<i>Multiple Regression</i>	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>
Intercept	-326121,753	300967,6662	-1,083577373	0,296861529
Poverty	11825,66116	6147,518384	1,923647953	0,074974063
Inflation	6337,304988	4624,060982	1,370506361	0,192104078
Gross enrollment ratio of men	-3696,271984	2016,770065	-1,832768172	0,088186955
Divorce rate	312894,9288	49828,19634	6,279475312	2,02391E-05
Nominal income rate	-1584,507293	2140,547938	-0,740234435	0,471390272

When it comes to the inflation rate and nominal income rate, since their p-values are approximately 0.19 and 0.47 respectively, there is not enough evidence to reject the following hypotheses: "There is no correlation between the inflation rate and the crime rate in Kazakhstan" and "There is no relationship between the nominal income rate and the crime rate in Kazakhstan".

Conclusion

The fact that Kazakhstan is in the top 50 countries with the highest crime rate shows that this is a serious problem for us. Therefore, the purpose of this study is to identify possible reasons for the commission of crimes by citizens. Basically, poverty and low wages drive people to have survival instincts, which lead them to aggressive behavior. Moreover, corruption within the country and injustice in the judicial system has an extremely negative impact on the mental state of citizens.

According to the empirical analysis results, there are evidence to reject only 3 hypotheses at 10% significance level: "There is no effect of poverty on the crime rate in our country", "There

is no relationship between the gross enrollment ratio of men and the crime rate in Kazakhstan” and “There is no effect of the divorce rate on the rate of crime in the country”. Unfortunately, there was not enough evidence to reject the hypotheses: “There is no correlation between the inflation rate and the crime rate in Kazakhstan” and “There is no relationship between the nominal income rate and the crime rate in Kazakhstan”. Hence, it can be concluded that the poverty rate within the country, the presence of higher education among men and their marital status determines the crime rate in Kazakhstan. We must note the fact that the values of R-squared and the F statistic are remarkably high. So, the overall effect of the poverty, inflation, gross enrollment ratio of men, divorce rate and nominal wage rate on the crime rate is significant.

Conclusively, if everyone in Kazakhstan who possesses authority and capabilities help to fight against poverty by creating opportunities for young men to earn sufficient amount of money for a living, the willingness of people to break the law will be diminished. Besides, it may lessen the divorce rate since there is a possibility that the occasion for most of the divorces is money. It is well known that divorce is not a positive event in the life of children. Regarding higher education, it is also linked to poverty and income inequality.

References

1. Crime index by Country 2023.
https://www.numbeo.com/crime/rankings_by_country.jsp?title=2023
2. «Самые преступные» страны: на каком месте Казахстан? (06.02.2023)
<https://ranking.kz/digest/world-digest/samye-prestupnye-strany-na-kakom-meste-kazahstan.html>
3. Астана – антилидер рейтинга по количеству преступлений в Казахстане. (02.06.2023) <https://kz.kursiv.media/2023-06-02/zhnr-prestupnost/>
4. Почему люди совершают преступления и можно ли это предотвратить? (24.05.2021)
<https://the-steppe.com/razvitie/pochemu-lyudi-sovershayut-prestupleniya-i-mozhno-li-eto-predotvratit>
5. В Казахстане снижается индекс охвата высшим образованием.(10.11.2022)
<https://kapital.kz/gosudarstvo/110279/v-kazahstane-snizhayet-sya-indeks-okhvata-vysshim-obrazovaniyem.html>
6. Allison, J. P. (1972). Economic factors and the rate of crime. *Land Economics*, 48(2), 193-196.
7. Harlow, C. W. (2003). *Education and correctional populations* (Vol. 12). Washington, DC: US Department of Justice, Office of Justice Programs.
8. Buonanno, P., & Leonida, L. (2006). Education and crime: evidence from Italian regions. *Applied Economics Letters*, 13(11), 709-713.
9. Machin, Stephen, Olivier Marie, and SuncicaVujic. 2010. “The Crime Reducing Effect of Education.” Working Paper, University College London, August.
10. Krohn, M. D. (1976). Inequality, unemployment and crime: A cross-national analysis. *The Sociological Quarterly*, 17(3), 303-313.
11. Glaeser, E. L., & Sacerdote, B. (1999). Why is there more crime in cities? *Journal of political economy*, 107(S6), S225-S258.
12. Long, S. K., & Witte, A. D. (1981). Current economic trends: implications for crime and criminal justice. *Crime and criminal justice in a declining economy*, 69-143.
13. Fajnzylber, P., Lederman, D., & Loayza, N. (2002). Inequality and violent crime. *The journal of Law and Economics*, 45(1), 1-39.

Legal Sciences

Уголовные правонарушения в сфере информатизации и связи по законодательству стран-участников СНГ

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Уголовная ответственность – это одна из составляющих уголовного правоотношения, которое является одним из основных методологических понятий уголовного права. Согласно статье 4 УК Республики Казахстан единственным основанием уголовной ответственности является совершение уголовного правонарушения, содержащего все признаки состава преступления и уголовного проступка [1, С.86].

Проблемы киберпреступности во всех странах мира вызывает необходимость выделения значительных сил правоохранительных органов для борьбы с данным видом уголовных правонарушений.

Это проблема касается не только работников правоохранительных органов, но и сотрудников специальных служб, служб безопасности банков и иных коммерческих организаций, специалистов и экспертов в области информатики, представителей научно-исследовательских учреждений и организаций, в том числе и экспертов по компьютерным вирусам, компьютерной технике и программному обеспечению.

Активизация уголовных правонарушений с использованием компьютерно – информационных технологий происходит по нескольким причинам:

- повсеместно наблюдается все возрастающее использование и совершенствование информационных технологий в криминальной деятельности, что вызывает необходимость постоянного изучения данного криминального проявления, так как развитие информационных технологий приводит к использованию этих достижений при совершении преступных деяний;

- для правоохранительных органов многих стран данная проблема является новым видом преступности, к борьбе с которой они не всегда оказываются подготовленными. Прежде всего, это происходит из-за несовершенства законодательства в регулировании данной области отношений и выработки механизма его исполнения, а также неподготовленность сотрудников правоохранительных органов и отсутствия технических средств и экспертных технологий по фиксации подобного рода нарушений и проведению соответствующих экспертиз. Что в свою очередь, вызывает необходимость разработки законодательства по борьбе с киберпреступностью, создания специальных курсов по подготовке специалистов в системе правоохранительных органов, судебных органов и экспертных учреждений;

- все большее распространение получают факты совершения транснациональных преступлений с использованием современных информационных технологий. Особую озабоченность вызывают компьютерные мошенничества, использование компьютерной техники при «отмывании» преступно нажитых средств, распространение компьютерных вирусов, проникновение хаккеров (лиц, осуществляющих несанкционированный допуск к компьютерной сети) в международные информационные системы и кражи информации.

Данная проблема обуславливает необходимость разработки международных процедур по оказанию помощи при расследовании такого рода уголовных правонарушений и создания в перспективе координирующего органа в рамках Интерпола.

"Информационная революция" застигла Республику Казахстан в сложный экономический и политический период и потребовала срочного регулирования возникающих на ее пути проблем. Между тем, как известно, правовые механизмы могут быть включены и становятся эффективными лишь тогда, когда общественные отношения, подлежащие регулированию, достаточно стабилизировались.

Необходимость досрочной разработки юридических основ информационных отношений привела к поспешному и не всегда корректному формированию ряда базовых правовых понятий в этой области с их уточнением в каждом следующем нормативном акте. Сейчас, когда создан и принят ряд базовых нормативных актов в области информационных отношений, наступило время для их применения на практике. В связи с чем, в Уголовном кодексе Республики Казахстан появилась новая глава, посвященная уголовным правонарушениям в сфере информатизации и связи, которая насчитывает около семи составов. В уголовных законодательствах многих стран устанавливается уголовная ответственность за определенные действия в связи с использованием информационно-коммуникационных технологий.

Представляется целесообразным проанализировать на предмет наличия составов уголовных правонарушений подобной направленности уголовные кодексы государств - участников Содружества Независимых Государств. На сегодняшний день «СНГ объединяет Азербайджанскую Республику, Республику Армения, Республику Беларусь, Кыргызскую Республику, Республику Молдова, Российскую Федерацию, Республику Таджикистан, Республику Узбекистан и Украину. С августа 2005 года Туркменистан вышел из действительных членов СНГ и получил статус ассоциированного члена-наблюдателя. С декабря 1993 по 18 августа 2009 года в состав СНГ входила Грузия».

Так в Уголовном кодексе Украины предусмотрено 6 статей, непосредственно затрагивающих «преступления в сфере использования электронно-вычислительных машин (компьютеров), систем и компьютерных сетей и сетей электросвязи», которые представлены в разделе XVI [2,С.116].

В Уголовном кодексе Республики Беларусь предусмотрено 7 статей, непосредственно затрагивающих «преступления против информационной безопасности», которые представлены в главе 31 раздела XII [3,С.122].

В Уголовном кодексе Кыргызской Республики предусмотрены 3 статьи, непосредственно затрагивающие «преступления в сфере компьютерной информации», которые представлены в главе 28. Ранее в Уголовном кодексе Кыргызской Республики было предусмотрено еще 2 статьи [4,С.118].

В Уголовном кодексе Республики Таджикистан предусмотрено 7 статей, непосредственно затрагивающих «преступления против информационной безопасности», которые представлены в разделе XII, глава 28 [5,С.133]. В Уголовном кодексе Республики Таджикистан использование глобальной информационно-телекоммуникационной сети Интернет предусмотрено в качествеотягчающих обстоятельств в ряде случаев.

В Уголовном кодексе Туркменистана предусмотрено 3 статьи, непосредственно затрагивающие «преступления в сфере компьютерной информации», которые представлены в главе 33[6,С.121].

В Уголовном кодексе Республики Узбекистан предусмотрены 6 статей в главе XXI «преступления в сфере информационных технологий» [7,С.123].

Кроме того, в Уголовном кодексе Республики Узбекистан в ст. 278 «Организация и проведение азартных и других основанных на риске игр» предусмотрена ответственность за

предоставление услуг в сетях телекоммуникации, в том числе провайдерами всемирной информационной сети Интернет.

В Уголовном кодексе Республики Армения предусмотрено 7 статей в главе 24 «Преступления против безопасности компьютерной информации».

Кроме уголовной ответственности за совершение преступлений, доступ к глобальной информационно-телекоммуникационной сети Интернет зачастую стали также использовать для совершения административных правонарушений. Законодательством об административных правонарушениях многих стран предусматривается административная ответственность за совершение административных правонарушений, связанных с использованием информационно-коммуникационных технологий [8,С.125].

В Уголовном кодексе Российской Федерации компьютерным преступлениям посвящена глава 28, в которой предусмотрено 3 состава [9,С.129].

В действующем Уголовном кодексе Республики Казахстан глава 7 посвящена уголовным правонарушениям, посягающим на сферу информатизации и связи, она является одной из новелл уголовного закона Республики Казахстан.

В Уголовном кодексе Республики Казахстан предусмотрено 9 статей, непосредственно затрагивающих «уголовные правонарушения в сфере информатизации и связи». Хотелось бы указать на основные факторы, обосновывающие введение главы 7 в Уголовный кодекс Республики Казахстан:

1. обеспечение условий для развития и защиты всех форм собственности на информационные ресурсы; формирование и защита государственных информационных ресурсов;

2. создание и развитие региональных информационных систем и сетей, обеспечение их совместимости и взаимодействия в едином информационном пространстве Республики Казахстан;

3. создание условий для качественного и эффективного информационного обеспечения граждан, органов государственной власти, органов местного самоуправления, организаций и общественных объединений на основе государственных информационных ресурсов;

4. обеспечение национальной безопасности в сфере информатизации, а также обеспечение реализации прав граждан, организаций в условиях информатизации;

5. содействие формированию рынка информационных ресурсов, услуг, информационных систем, технологий, средств их обеспечения;

6. формирование и осуществление единой научно-технической и промышленной политики в сфере информатизации с учетом современного мирового уровня развития информационных технологий;

7. поддержка проектов и программ информатизации;

8. создание и совершенствование системы привлечения инвестиций и механизма стимулирования разработки и реализации проектов информатизации;

9. развитие законодательства в сфере информационных процессов, информатизации и защиты информации.

Борьба с преступлениями в сфере компьютерных и высоких технологий с каждым днем приобретает остроту во всех странах. Преступления в сфере информационных технологий прежде всего связаны с противоправным использованием компьютерных систем. Чаще всего они имеют корыстную направленность и отличаются высоким уровнем латентности. Статистика неутешительна: если в 2014 году в Республике Казахстан было заведено 21 уголовное дело, связанное с киберпреступностью, то в 2015 году только за первое полугодие показатель достиг 66 случаев по республике. Актуальность проблемы и все связанные с ней риски вызвали

необходимость внесения в Уголовный Кодекс новой седьмой главы – «Уголовные правонарушения в области информатизации и связи».

Практика показывает, что основные категории совершаемых уголовных правонарушений – это кражи, именно тайное хищение средств, и мошенничество, а также распространение вирусов и вредоносных программ путем спама. Опасность деяний киберпреступников заключается в том, что они могут повлечь серьезные нарушения в работе компьютерных систем и сетей. Это также ведет к краже, уничтожению или искажению важной информации, но наиболее активно орудуют все же фишинг-мошенники, для которых главная мишень – банковские реквизиты [10].

Эффективное решение проблемы требует согласованных международных действий и сотрудничества. Однако это возможно только в том случае, если существует общее понимание проблемы как таковой и необходимости рассмотрения соответствующих решений. Необходимо совершенствовать законодательство, несмотря на специфичность самой компьютерной сферы, требующей специальных познаний и квалифицированных специалистов.

Литература:

1. Комментарий к Уголовному кодексу Республики Казахстан. Общая часть (том 1)/ Под общ.ред. Генерального Прокурора Республики Казахстан, Государственного советника юстиции 1 класса Даулбаева А.К. – Алматы: Жеті Жарғы, 2015. 500 с.
2. Уголовный кодекс Украины от 5 апреля 2001 года № 2341-III. Киев. 2011. 220 с.
3. Уголовный кодекс Республики Беларусь 9 июля 1999 г. № 275-З. Минск. 2012. 245с.
4. Уголовный кодекс Кыргызской Республики от 1 октября 1997 года. Бишкек. 2013. 211с.
5. Уголовный кодекс Республики Таджикистан от 1 января 1998 г. Душанбе, 2008. 186с.
6. Смирнов А.В., Калиновский К.Б. Комментарий к Уголовному кодексу Туркменистана. Постатейный / Под общ. ред. проф. А.В. Смирнова. 2013 г. Организация по безопасности и сотрудничеству в Европе. Центр ОБСЕ в Ашхабаде. Ашхабад, 2013. 663 с.
7. Уголовный Кодекс Узбекистана от 22.09.94 года. Ташкент. 2009. 240 с.
8. Уголовный кодекс Республики Армения от 29 апреля 2003 года №ЗР-528. Ереван. 2012. 210 с.
9. Уголовный кодекс Российской Федерации. – Москва: Омега-Л, 2006. – 176 с.
10. Естеусизов Е.Н. Компьютерная преступность и правовое обеспечение информационной безопасности // Актуальные проблемы применения уголовного законодательства Республики Казахстан на современном этапе: вопросы теории и практики: материалы международной научно-практической конференции. – Алматы: ООНИиРИП Алматинской академии МВД Республики Казахстан, 2015. – 215-226 с.

Historical Sciences

СЫРДАРИЯНЫҢ ОРТА АҒЫСЫНДАҒЫ БЕКІНІСТЕР

ПӘРМЕНҚҰЛ СӘБИТ ТҰРЛЫБЕКҰЛЫ

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КРЕПОСТЬ СРЕДНИЙ ТЕЧЕНИЯ СЫРДАРЬЕ

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Мақалада Отырар аумағында орналасқан бекіністердің атқарған қызметі мен пайдаланылған мерзімі қарастырылған. Сонымен бірге, бекіністерге жүргізілген зерттеулер жайында жалпылама шолу жасалды.

Кілт сөздер: тарих, география, зерттеулер мен деректер

В данной статье описывается о крепости, а также их период существования, который расположен в средний течения Сырдарье. А также, была дана краткая информация и научные исследования о крепостей.

Ключевые слова: история, география, исследования и данные

This article describes about the fortress services, and their period of existence which located in Otrar region. As well as, it was given brief information and scientific researches about the fortresses.

Key words: history, geography, researches and data

Елімізде көрнекті ескерткіштердің бірі – төрткілді бекіністер. Қазақ тілінде төрткүл дүние бесігі, дөңгеленген төрткүл дүние деген сөз тіркестері көптеп кездеседі. Осы уақытқа дейін ескерткіш құрылысының пішініне қарап бірқатар этимологиялық талдаулар жасалған болатын. Олардың ішінде бірқатары ескерткіштің құрылысына қарап тікелей атаса, бірқатары балама атпен атады. Мәселен, В.В.Бартольд өз еңбегінде бекініс төртбұрышты етіп салынып, айналасы ормен қоршалатындығын айта келе, түркі сөзінен аударғанда «Төрткөл» атауын беретіндігін айтса [1, 3 б], М.Тұяқбаев өз зерттеуінде «төрткөл», «төрткүл» атаулары ескерткіш мағынасын өзгертетіндігін, шын мәніндегі атауын Махмуд Қашғаридің «Словаре тюркских слов» атты еңбегіне сүйене отырып «Төрткіл», яғни, «төртбұрышты үй» мағынасын беретіндігін, ал, «төбе» сөзі көнетүріктің «төпү» сөзінен шыққанын, кейін келе «Төрткүл төбе» аталғанын жазады [2, 43 б].

Сонымен бірге, бекіністер мен қамалдарға қатысты тағы бір балама атауды Бонн университеті, Шығыстану институтының (Германия) профессоры Н.Кенжеахметтің зерттеулерінен көре аламыз. Бұнда Ертіс өзенінің сағасында орналасқан қала аттарына «Тұра» сөзі қосарлана жүретіндігін айтылады. «Тұра» сөзі көне түркі тілінде «қалашық», «қамал» деген мағына береді екен. Сонымен бірге, Осман түріктері тілінде «мұнара, бекініс; төртбұрышты ағаш немесе тас құрылыс», ал, сібірдегі хакас, шор қатарлы түркі тілдес ұлттар

тілінде «қала, төртбұрышты үй» деген мағына береді – деген пікір келтіреді [3]. Ал, бірқатар зерттеулерде «Тұра» сөзі ойраттардан қалған деген пікірлер кездеседі. Ойрат тілінде тұра сөзі «Қамал» мағынасын береді екен [4]. Бұл жерде назар аударарлық жайт, көне түрік тайпалары өмір сүрген уақыты мен ойраттардың өмір сүрген уақыт арасы алшақ болғанына қарамастан тұра сөзінің мағынасын жоғалтпағандығы.

Ал, «Қазығұрт» энциклопедиясында керуен сарай мен бекіністерге байланысты мынадай түсінік берілген: «**Рабат** – жер аты. Көне ауылдың ежелден келе жатқан аты. Рабат деген ұғым алғашқы кезде шекарадағы бекініс, соңынан керуен сарай баламасына тең. Тау қойнауында орналасқан, көк жасыл алқап, Жібек жолының бойы. Осы жерде әулиелі бекет болған. Ташкентке қарай өткен керуендер бекетке тоқтап, демалып, көлік ауыстырып, ары қарай жол тартқан» [5, 278].

Сырдарияның орта ағысынан, яғни, Отырар өңірінен анықталып отырған бекініс қалдықтары өз заманында көшпелі және отырықшы елдер арасында маңызды рөл атқарғанына ешкім дау айта алмаса керек. Төрткілді бекіністерді көптеген ғалымдар зерттеп, еңбектер жазды. Зерттеу барысында шыққан жалпылама еңбектер мен шолуларға тоқтала бермей, толыққанды зерттеу жүргізген бірқатар ғалымдардың еңбегіне сілтеме жасайтын болсақ, Ә.Х.Марғұлан ортағасырлық қалаларды алты түрге бөліп қарастырып, бірінші түріне билеушілер тұратын орталық, екінші түріне сауда және отырықшы мекенжұрттар, үшінші түріне әскери бекіністер, төртінші түріне керуен сарайлар, бесінші түріне жер өңдеуші жатақтардың мекенжұрттары және соңғысы бекіністі усадбілерді жатқызған [6, 29 б].

М.Елеуов Жамбыл облысына қарасты Шу, Талас өзендері бойынан анықталып отырған қалаларды ұзын жалды қалашықтар, төрткүлдер, төбелер деп үш топқа бөліп, соның ішінде төрткүлдерді көлеміне қарай алты түрге бөліп зерттеді [7, 93 б].

К.М.Байпақов Жетісу өңірінің солтүстік-шығысында орналасқан төрткүлдерді аумағына қарап төрт топқа бөліп қарастырған [8, 356 б].

Ал, Н.А.Бернштам өз еңбектерінде «Жетісу қалалары керуен жолдарының бойына салынған. Төрткүл қалдықтарын сол жолдардың сүрлеуі деп ұғыну керек» – деп жалпылама сипаттама берді.

Сырдария өзенінің орта және төменгі ағысынан анықталып отырған мұндай ескерткіштер төрткіл деп атауының өзі айтып тұрғандай, бұрыштары дүние тараптарына қарата салынған бекіністің сыртқы қорған-қабырғалары шағын мұнаралармен нығайтылып, қақпа орны бір-біріне қарама-қарсы не болмаса қабырғаның бір шетіне таман орналасқан. Көлемдері әртүрлі болып келетін бекініс ішінің құрылыс қалдықтары көбінесе бекіністің ортасында не болмаса бір шетіне таман диаметрі 8-12 м, биіктігі 0,4-0,6 м келетін шағын төбе күйінде сақталған. Тағы бір назар аударарлық жай, анықталып отырған бекіністердің басым көпшілігі ірілі-ұсақты өзен бойларына жақын орналасқан. Бұған қарап, мұндай бекіністер өзен бойындағы өткел аузына салынған бекет және көшпелі тайпалардың шапқыншылық кезеңде уақытша паналайтын бекініс орны деуге де келетін тәрізді. Сонымен қатар, алыс-жақыннан шыққан керуендердің демалатын орындары қызметін қоса атқарған болса керек. Ортағасырлық жиһанкез Марко Полоның «Книга Марко Поло о разнообразий мира, записанная пизанцем Рустикано в 1298 г. От р.Х» еңбегінен керуен бекеттерінің салыну тәртібі мен қызметі жөнінде біршама мәлімет алуға болады. Онда «Ұлы хан атанған Құбылай ханның Ханбалық қаласынан әр тарапқа таралатын жолдардың әрбір 40-шы шақырымына керуен тоқтайтын бекіністер салдырып, онда күтуші қызметкерлер мен лауға мінетін аттар дайындатып қойғанын» айтады [9, 110-112 бб].

Ескерткіштердің сақталуына келер болсақ, Сырдарияның төменгі ағысында орналасқан мұндай ескерткіштер біршама жақсы сақталған. Ауа-райы құрғақ, шөлді аймаққа жататын бұл өңірде ескерткіштердің сыртқы қорған-қабырғалары, қақпа орындары мен мұнара сұлбаларының өлшемін алуға мүмкіндік мол.

Ал, қоңыржай континенттік белдеуде орналасқан Отырар өңірінде орналасқан бекіністер қабырғалары жайылып кеткен, жал күйінде сақталып отыр. Қақпа орындары мен мұнара қалдықтарын тек сұлбаларына қарап ажытаруға болады.

Отырар өңірінен анықталған бекіністерді құрылыс ерекшеліктеріне қарап төрт топқа бөліп қарастырғанды жөн деп отырмыз.

Бірінші топқа керуен жолдарының бойында орналасқан тұрақты бекіністер мен керуен сарайларды айтамыз. Мұндай керуен сарайлар мен бекіністер Отырар өңірінде орналасқан Бұзықтөбе, Атқора, Қойлыбай тәрізді ескерткіштер маңынан анықталып, зерттелуде. 2008 жылы Отырар ауданына қарасты Ақтөбе ауылының оңтүстік-шығыс шетінде орналасқан Бұзықтөбе қалажұртының керуен-сарайына жүргізілге болатын. Көлемі 60x70м, биіктігі 1-1,5м келетін, екі құрылыс қабатынан тұратын шағын керуен-сарайға жүргізілген қазба жұмыстары барысында сарай құрылысына қажетті біршама материалдар жинақталды [10, 181-185].

Екінші топқа, өзен жағалауына жақын, өткел ауыздарына салынған бекіністерді жатқызамыз. Мұндай бекіністер ұзақ жолдан арып-ашып келе жатқан керуен тоқтап дем алатын орын қызметін атқарған деп жобалап отырмыз. Бұл топқа жатқызылған ескерткіштердің формасы шағын, көлемдері 40x40, 60x60, 65x60 м аралығында. Жоғарыда айтып өткеніміздей, мұндай ескерткіштердің ішкі бөлігіндегі құрылыс қалдықтары бекіністің ортасында не болмаса бір шетіне таман орналасқан. VIII-X ғасырларда салынған Субағар, Тектұрмас, Тасқотан, IX-XI ғасырларға тән Аққұм, Көлқұдық және XV-XVII ғғ. тән Қостүйін төрткілдері Сырдария және Арыс өзені бойларынан, өзен арнасына жақын жерден анықталып отыр.

Бұлардың ішінде Субағар, Тектұрмас, Аққұм, Көлқұдық бекіністері Сырдария өзенінің сол жағалауынан анықталса, Қостүйін төрткілі қазіргі Ш.Қалдаяқов ауылынан оңтүстік-шығысқа қарай 10 км жерде, Арыс өзенінің оң жағалауынан анықталып отыр. Тасқотан төрткілі Қожатоғай өңірінен, Қожатоғай ауылының оңтүстік-шығысынан 30 км жерде орналасқан.

Үшінші топқа көлемі 100x100 м-ден жоғары тұратын Аққорған, Қанбаба, Жартөбе, Баусексеуіл тәрізді бекіністерді жатқызуға болады. Құрылысы күрделі болып келетін мұндай ескерткіштер көп мұнаралы және қамал ішінен тағы бір шағын бекініс орындарын байқауға болады.

Көксарай ауылының шығысынан 5 км жерде орналасқан Қанбаба төрткүлін Отырар мемлекеттік археологиялық қорық-музейі (З.Исабек, Н.Алдабергенов, С.Ахмет) ашып зерттеген. Жосыны шаршы тәрізді, көлемі 130x136 м, қабырғаларының биіктігі 1,5-2 м төбе. Бұрыштары дүниенің төрт тарапына қарата салынып, айналдырыла ормен қоршалған. Қақпа орны солтүстік қабырғада, бекіністің солтүстік-батыс бұрышына таман орналасқан. Бекіністің шығыс бұрышында көлемі 60x40 м келетін, шамасы, ішкі бекініс болуы мүмкін, шағын төбешік орналасқан [11, 86 б].

Ал, Баусексеуіл төрткілі, Ызакөл ауылының оңтүстік-шығысынан 1,3 км жерде, Баусексеуіл мекенжұртының солтүстік-батысынан 300 м жерде орналасқан. Бекініс бұрыштары дүние тараптарына қарата салынған, көлемі 200x194 м. Қабырғалары жайылып кеткен жал түрінде сақталған, ені 16 м, биіктігі 0,7-1 м. Бұрыштары мен қабырғаларында 10 мұнара орны сұлбасы көрінеді. Ескерткіштің ортасымен солтүстік-шығыстан оңтүстік-батысқа қарай тереңдігі 1 м арық тартылған. Ол, диаметрі 36 м келетін, ортадағы дөңгелек хауызға құяды. Бекіністің батыс бұрышынан жапсарластырыла салынған көлемі 38x26 м келетін шағын құрылыс қалдығы орналасқан. Шамасы бұл құрылыс керуен-сарай қызметін атқарған болуы мүмкін [12, 97 б].

Төртінші топқа Отырар өңірінен анықталған Шаншар тәрізді қалалар тобына жатқызылған ескерткіштерді жатқыздық. Бұл топтағы ескерткіштердің ерекшелігі, ескерткіш

үш немесе одан да көп мәдени қабаттан тұрады және айналдырыла қорған-қабырғамен бекітілген.

Спутниктік түсірілім арқылы Сырдария өзенінің арнасы бірнеше мәрте өзгергендігін байқауға болады. Өзеннің бастапқы арнасы қазіргі арнаның батысында, Қызылқұм шөлін бөктерлей аққан. Бұл жерде өзен көптеген ұсақ тармақшаларға бөлініп, осы тармақшалардың бойынан көптеген ірілі-ұсақты елдімекендер мен қала орындары анықталып зерттелуде. Ал, бұл жерде қалалар мен мекенжұрттарды қоныстанушы халықтың қоныс аударуына өзен арнасының құрғап қалуы басты себеп боолғаны белгілі.

Шаншар ескерткіші Сырдария өзенінің ескі арнасының оң жағалауында, қазіргі Көксарай ауылының оңтүстік-батысынан 16 км жерде орналасқан. Ескерткіш 1993 жылы Отырар мемлекеттік археологиялық қорық-музейі ұйымдастырған экспедиция барысында табылып, ғалымдардың пайымдауынша ескерткіш мерзімі б.д. 1-мыңжылдығының 1-жартысына жатқызылды. Алайда, 2010 жылы Отырар қорық-мұражайының қызметкерлері Сырдария өзенінің сол жағалауында орналасқан ескерткіштердің жай-күйімен танысу мақсатында ұйымдастырған экспедиция барысында төбе үстінен шамамен IX-XI ғасырға жататын керамика үлгілері теріліп алынды.

Шаншар ескерткіші жайында М.Қожа еңбегінде «Отырар ауданында, біздің пікірімізше, хронологиялық тұрғыдан, ең байырғы қалашықтардың бірі – Шаншар. Ол «Мұңлық-Зарлық» хисса-хикаятындағы бас кейіпкер – Зарлықтың әкесі Шаншарханның атымен аталады» дей келе, «Мұңлық-Зарлық» хиссасын келтіреді. Сонымен бірге, хиссада аталатын кісі атауларының оғыз тобына жақын екендігін саралай келе, аңыздың шыққан тегін оғыз-қыпшақ мәдениетіне жатқызады [13, 108-111]. Жоғарыда айтып өткеніміздей, қаланың көне бөлігі б.д. I-мыңжылдықтың I-жартысына жатқызылған болса, қаланың шығыс бөлігінде орналасқан екінші бөлігінен теріліп алынған керамика үлгілерін оғыз дәуіріне, яғни, IX-XI ғғ. жатқызуға толық негіз бар деп ойлаймыз.

Ескерткіштің жалпы ауданы шамамен 140 га, оның бір бөлегі құм астында жатыр. Ескерткіш ортақ үймек-дуалмен қоршалған екі төрткіл-төбеден тұрады. Оны ұзындығы 4,8 км сыртқы қорған қоршап тұр. Шаншар қалажұртының орталық бөлігінде төртбұрышты қамал орналасқан. Қамалдың төрт бұрышында төрт мұнара, оңтүстік-батыс қабырғасының ортасында қақпаның екі шеті мұнаралармен бекітілген. Қамал мен оның айналасындағы аймақты тағы бір қорған қоршап тұр. Оның қабырғаларында 23 мұнара орны бар. Бұл қорғанның қақпасы солтүстік-шығыс дуалында болғаны байқалады. Қабырға ұзындығы 1 км, биіктігі 1,5-2 м. Аталған төрткүлден шығысқа қарай 310 м жерде екінші қамал тұр. Оның көлемі 50x50 м, биіктігі 3 м-ге дейін, бұрыштары дүниенің төрт тарапына қараған. Оңтүстік-батыс қабырғадағы қақпасы мұнарамен бекітілген. Қамалдың солтүстік-шығысы мен солтүстік-батысында сай бар. Оңтүстік-батыс пен оңтүстік-шығысынан оған 11 мұнаралы қабырғамен қоршалған алаң жапсарласады. Алаң жосыны тікбұрышты, мұнаралы қақпасы оңтүстік-шығыс қабырғаның ортасында орналасқан [14, 91 б].

Сонымен қатар, ескерткіш құрылымы Қызылорда өңірінен, яғни, Іңкәрдария өзенінің бойынан анықталып отырған Заңғар ескерткішімен ұқсастығы. Ескерткіш құрылысы сонымен қатар, Сырдарияның төменгі ағысында орналасқан Шірік-Рабат ескерткішіне де келеді. Аталған ескерткішке «Мәдени мұра» мемлекеттік бағдарламасы аясында ҚР ҰҒА Ә.Марғұлан атындағы археология институтының мамандары Ж.Құрманқұловтың жетекшілігімен жүргізген зерттеу жұмыстары нәтижесінде Шірік-Рабат ескерткіші сақ дәуіріне жатқызылса, Заңғар бекінісі оғыз мемлекетіне тән екендігі белгілі. Ал, Отырар өңірінен анықталып отырған Шаншар қаласының фортификациялық құрылыстарына қарап б.д.д. 1-мыңжылдығының аяғында Сырдарияның орта ағысындағы аймақтың елеулі орталығы болған деп болжай аламыз [15, 93,94]. Көңіл бөліп қарайтын мәселе аталған ескерткіштердің барлығы да Қызылқұм шөлінде, Сырдария өзенінің ескі арнасында орналасқандығы ғана

емес, салыну үрдісі де бір-бірімен сәйкес келетіндігі. Жоғарыда аталған қалалардың цитаделі төрткіл тәрізді етіп салынып, айналдырыла қорған тұрғызылған.

Сырдария өзенінің ескі арнасы бойында орналасқан ескерткіштердің зерттелу жайын қорытындылай келе уақытында адам қолымен салынып, көптеген пайдасын тигізген ескерткіштердің туыстық байланысын анықтау мақсатында қазба жұмыстарын жүргізіп, алынған материалдарды басқа өңірлердегі мағлұматтармен салыстыра талдау жүргізу қажет. Сонда аталған өңірде өмір сүрген тайпалардың даму тарихы бір ізге түсетіндігі анық. Қазба барысында алынған материалдар Сырдария бойында орналасқан тарихи нысандардың деректік қорын толықтырады.

ӘДЕБИЕТТЕР:

1. Бартольд В.В. Отчет о поездке в Среднюю Азию с научной целью в 1893-1894 гг. / В.В.Бартольд; Соч. – Т. IV. – М., 1966, – 31 с.
2. Туякбаев, М. Историческая топография и развитие городов и поселений Туркестанского оазиса (XIII-XIX вв) / М.Туякбаев; – Алматы, – 2009. – 43 с.
3. old.abai.kz
4. kk.wikipedia.org
5. Энциклопедия. – Қазығұрт ауданы. – Алматы: Тоғанай Т, 2002. – 278 б.
6. Маргулан, А.Х. Из истории городов и оросительного искусства древнего Казахстана / А.Х.Маргулан; Академия наук Казахской ССР.-1950. – 29 с.
7. Әл-Фараби атындағы ҚазМУ Хабаршысы. Тарих сериясы, – 2 . Алматы, 1995. / Типологическая классификация средневековых городов и поселений Шуйской долины; [мақ. авт. М.Е.Елеуов] Алматы,1995. 93 б.
8. Байпақов К.М. Қазақстан археологиясы / К.М.Байпақов, Ж.Қ.Таймағамбетов, Алматы-2009.,356 б.
9. Книга Марко Поло о разнообразий мира, записанная пизанцем Рустикано в 1298 г. От р.Х // Алма –Ата, Наука Казахский ССР,-1990 г.
10. «Бабалар сөзі: Тарих, дерек, жәдігер» атты республикалық ғылыми-теориялық конференция материалдары, Түркістан, 28 қазан 2014 ж. / Бұзықтөбе қалажұртының керуен сарайы; [мақ. авт. С.Т.Пәрменқұл] Түркістан,-28 қазан 2014-181-185 бб.
11. Оңтүстік Қазақстан облысы, тарих және мәдениет ескерткіштерінің жинағы, Отырар ауданы // Алматы,-2007.-86-87 бб.
12. Оңтүстік Қазақстан облысы, тарих және мәдениет ескерткіштерінің жинағы, Отырар ауданы // Алматы,-2007.-97-98 бб.
13. Қожа М.Б. Ортағасырлық Отырар: Аңыздар, Деректер, Зерттеулер / М.Б.Қожа; Түркістан – 2006. - 108-111 бб.
14. Оңтүстік Қазақстан облысы, тарих және мәдениет ескерткіштерінің жинағы, Отырар ауданы // Алматы,-2007.-91 бб.
15. Оңтүстік Қазақстан облысы, тарих және мәдениет ескерткіштерінің жинағы, Отырар ауданы // Алматы,-2007.-93-94 бб.

Pharmaceutical Sciences

The Study of Drug Utilisation Evaluation of Benzodiazepine Derivatives and Antipsychotic Drugs Prescribed in Tertiary Care Hospital

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Keywords: Drug utilisation evaluation, schizophrenia, depression, Benzodiazepines, drug dependence, insomnia.

Background:

The World Health Organization (WHO) addressed drug utilization evaluation (DUE) as the marketing, distribution, prescription, and use of drugs in a society, considering its consequences, either medical, social, or economic. Drug utilization focuses on the prescribing, dispensing, administering, and taking of medication.

DUE has been brought into focus since the early 1960s on both sides of the Atlantic (It includes the UK, the US, and regions of Western Europe). It was primarily designed for market-only purposes, Presently drug utilization studies are a developing area and play an important role in the evaluation of present state and future trends in drug utilization, appropriateness of prescriptions, adherence to evidence-based recommendations, and minimal drug expenditures. It focuses on providing the best available treatment or rational drug therapy for better patient care. DUE studies are used as a valuable research resource in the fields of pharmacoepidemiology, pharmacovigilance, pharmacoconomics, pharmacogenetics, and other public health-related areas.[1,2]

Drug use varies constantly between nations and even between health facilities within a single nation therefore periodic studies must be conducted, In India, many factors like illiteracy, poverty, sale of prescription drugs without prescription, limited drug information, and inappropriate use of drugs are main reasons for not achieving the rational health care. Hence the DUE studies become one of the potential tools in the evaluation of the health care system.[3]

1.Psychiatric disorders

Mental diseases are a major public health concern, Four of the top ten health conditions influencing Disability Adjusted Life Years (DALYs) are psychiatric disorders. Mental illness is connected with high levels of healthcare consumption and associated expenditures, which are largely borne by the patient in developing countries.

Psychiatric conditions are now the most frequent cause of extended illness. Several developed countries' economies are heavily burdened by the resulting loss in production and cost of disability benefits. Poverty and social isolation are additional consequences of dysfunction caused by psychiatric disorders. This leads to policymakers placing a high priority on job-related and psychiatric disorders.[4]

The definition of a psychiatric disorder in DSM-5 states “A mental disorder is a syndrome characterized by clinically significant disturbance in an individual's cognition, emotion regulation, or behavior that reflects a dysfunction in the psychological, biological, or developmental processes underlying mental functioning” .[5]

Two main types of medical treatment are psychotherapy and prescription drugs for mental illnesses. Lifestyle modifications, social interventions, group support, and self-help are some additional treatments. There may be certain cases of forced detention or treatment. Programs for prevention have been shown to lessen feelings of depression.[6]

1.1.Depression

Depression is a common chronic illness that can have an impact on one's thoughts, mood, and physical health. It is characterized by a low mood, lack of energy, sadness, inability to enjoy life, and insomnia. However, clinical studies have not yet demonstrated that depression patients achieve therapeutic success. The report on the Global Burden of Disease estimates the point prevalence of depressive episodes to be 1.9% for men and 3.2% for women.[7]

A major depressive episode is first indicated by a loss of interest or enjoyment in almost all usual activities, a patient is characterized by depression if he shows any of the following symptoms experienced daily at least for 2 weeks.[8]

SYMPTOMS

- 1.Poor appetite/loss of appetite or Increased appetite / increased weight
- 2.Insomnia or Hypersomnia
- 3.The feeling of restlessness or agitation, a feeling of being slowed down.
- 4.Loss of interest or pleasure in usual activities
- 5.Loss of energy or fatigue

- 6.The feeling of worthlessness, guilty
- 7.Complaints/evidence of indecisiveness or slowed thinking
- 8.Thoughts of death, suicide

The majority of depression cases seen in the clinical setting can be managed in the outpatient setting and range in severity from mild to moderate. However, some patients may also have psychotic symptoms, poor physical health, suicidal behavior, or other symptoms of severe depression. In such instances, careful evaluation is required to select a treatment setting and, if necessary, inpatient care.[9,10]

Table No. 1 List of Antidepressants

Antidepressants	Usual dose range (mg/day)	Common side effects
Selective Serotonin reuptake inhibitor (SSRI)		
Fluoxetine	20-80	Sexual dysfunction, GI distress, weight loss/gain, anxiety, insomnia.
Fluvoxamine	50-300	
Sertraline	50-200	
Citalopram	20-40	
Escitalopram	10-20	
Tricyclic anti-depressants (TCA's)		
Amitriptyline	50-200	Sexual dysfunction, anticholinergic effects, and drowsiness. orthostasis, conduction abnormalities, mild GI distress, and weight gain.
Imipramine	75-300	
<i>Nortriptyline</i>	25-150	
Monoamine oxidase Inhibitor (MAO-I)		
Phenelzine	45-90	hypotension, drowsiness, insomnia, and headaches.
Isocarboxazid	30-60	
Tranylcypromine	20-60	

*I*highly used antidepressant*

1.2 Bipolar Disorder

Bipolar disorder is a repetitive chronic condition characterized by mood and energy fluctuation. It affects more than 1% of the global population, regardless of nationality, ethnicity, or socioeconomic level. Bipolar disease is one of the major causes of disability in young people, causing cognitive and functional impairment as well as increased mortality, including suicide.[11] People with bipolar disorder experience alternating depressive episodes with periods of manic symptoms. During a depressive episode, the person experiences a depressed mood (feeling sad, irritable, empty) or a loss of pleasure or interest in activities, for most of the day, nearly every day. Manic symptoms may include euphoria or irritability, increased activity or energy, and other symptoms such as increased talkativeness, racing thoughts, increased self-esteem, decreased need for sleep, distractibility, and impulsive reckless behavior. People with bipolar disorder are at an increased risk of suicide. Yet effective treatment options exist including psychoeducation, reduction of stress and strengthening of social functioning, and medication.[12] Symptoms

The common symptoms noticed in bipolar disorder are Euphoria or irritability; lack of sleep; talkativeness; racing thoughts; increased sexual and aggressive activity; increased motor activity or agitation; poor judgment. [13]

Types of bipolar disorder (According to DSM-5 Criteria)

i) Type I bipolar disorder - At least one episode of full-blown mania or a mixed episode (manic and depressive symptoms). Typically experiences at least one depressive episode.

ii) Type II Bipolar disorder - Several long-lasting depressive episodes and at least one hypomanic episode, but no manic episodes.

Unspecified bipolar disorder - Depressive and hypomanic-like symptoms and episodes that may alternate rapidly, but do not fulfill the full diagnostic criteria for any of the above illnesses.[14]

Treatment

The therapeutic goals in bipolar disorders are as follows: prevention and treatment of syndromal hypomania, mania, and depression; relief of inter-episodic depressive symptoms; normalization of circadian disturbances (e.g., in sleep); improvement and preservation of cognitive function; treatment and prevention of psychiatric and medical comorbidity; improvement of patient-reported outcomes (e.g., quality of life); and reduction of suicidality. Mood stabilizers and antipsychotics are the mainstays of acute bipolar mania and depression care. However, the evidence for the use of antidepressants to treat depression is mixed, and these medicines should never be used as monotherapy in bipolar I disorder. Electroconvulsive therapy is highly effective for treatment-resistant acute mood episodes, particularly in individuals with psychotic or catatonic characteristics. Antipsychotics were much more effective than mood stabilizers in treating mania, with haloperidol, risperidone, and olanzapine being the most effective. In terms of acceptance, which is defined as how many patients stayed on the assigned medication, quetiapine, risperidone, and olanzapine performed best. Risperidone and olanzapine had the highest efficacy and acceptance rates. [15,16]

1.3 Generalized anxiety disorder (GAD)

Generalized anxiety disorder (GAD) is characterized by excessive worry and anxiety that persists for longer than six months and significantly impairs a variety of areas of the subject's life. Women experience this disorder twice as often as males would. GAD patients' worries can spread rapidly to a variety of aspects of daily life, such as their health, family relationships, and their financial or occupational situation.[17]

Symptoms

Generalized anxiety disorder is characterized by symptoms like palpitations, dry mouth, and sweating as well as feelings of threat, restlessness, irritability, stress, disturbed sleep, and strain. Instead of being considered separate complaints, these symptoms are recognized as being a component of anxiety syndrome. For at least a few weeks at a period, and frequently for several months, the primary symptoms of anxiety are present on the majority of days. These signs should typically include nervousness and muscle tension and excessive autonomic action.[18]

Treatment

Effective treatments include pharmacological interventions, primarily selective serotonin reuptake inhibitors, benzodiazepines, psychological therapies, such as cognitive behavioral therapy, and self-help approaches founded on the principles of cognitive behavioral therapy.[19,20]

A) Antidepressants:

Selective serotonin reuptake inhibitors (SSRIs), Serotonin-norepinephrine reuptake inhibitors(SNRIs), Tricyclic antidepressants (TCAs)

B) Anticonvulsant

C) Benzodiazepine

1.4 Schizophrenia

The use of antipsychotic drugs includes a difficult trade-off between the benefit of lessening psychotic symptoms and the risk of numerous adverse effects. Antipsychotic drugs are not curative and do not abolish chronic thought disorders, but they frequently decline the power of hallucinations and delusions and allow the person with schizophrenia to function in a caring situation.[21]

Treatment

The goals in treating schizophrenia include targeting symptoms, preventing relapse, and increasing adaptive functioning so that the patient can be integrated back into the community. The American Psychiatric Association states that except for clozapine, second-generation (atypical) antipsychotics (SGAs) are the preferred medications for the first management of schizophrenia. The possibility of agranulocytosis makes clozapine contraindicated. Due to its association with fewer extrapyramidal effects, SGAs are typically favored over first-generation (typical) antipsychotics (FGAs). To help the patient reintegrate into society, the treatment of schizophrenia aims to reduce symptoms, stop relapses, and improve adaptive functioning. The combination of both nonpharmacological and pharmaceutical treatments is necessary to achieve the best long-term results since individuals rarely regain their baseline level of adaptive functioning. The mainstay of schizophrenia management is pharmacotherapy, yet residual signs may still exist. Because of this, non-pharmacological therapies like psychotherapy are equally crucial.[22,23]

2. BENZODIAZEPINES (BDZs)

The chemical fusion of a benzene ring and a diazepine ring defines the primary chemical structure of benzodiazepines, a class of depressive medicines. Seizures, sleeplessness, and anxiety disorders are a few of the ailments for which they are prescribed. Chlordiazepoxide (Librium), the first benzodiazepine, was accidentally discovered by Leo Sternbach in 1955. Hoffmann-La Roche made it commercially available in 1960, and diazepam (Valium) was released shortly after. By 1977, benzodiazepines were the most commonly prescribed drugs worldwide.[24]

The depressant benzodiazepines have sedative, hypnotic (sleep-inducing), anxiolytic (anti-anxiety), anticonvulsant, and muscle relaxant characteristics because they increase the impact of the neurotransmitter gamma-aminobutyric acid (GABA) at the GABA-A receptor. Episodic memory amnesia and dissociation can also be brought on by taking large doses of several shorter-acting benzodiazepines.[25,26]

General pharmacology

BZDs influence the gamma amino butyric acid (GABA)-A receptor in a favorable pharmacological manner. The GABA-A receptor is a chloride-selective, ligand-gated ion channel. The limbic system and cortex have large quantities of GABA, the most common neurotransmitter in the central nervous system. As GABA has an inhibitory character, it lowers the excitability of neurons. Thus In the brain, GABA has a calming implication. The 3 GABA receptors are designated A, B, and C. The GABA-A receptor complex constitutes of 5 glycoprotein subunits, each with multiple isoforms. Two alpha, two betas, and one gamma subunits make up GABA-A receptors. The benzodiazepine binding site is located in a particular pocket at the pairing (intersection) of the alpha and gamma subunits.[27,28]

Benzodiazepine in clinical practice

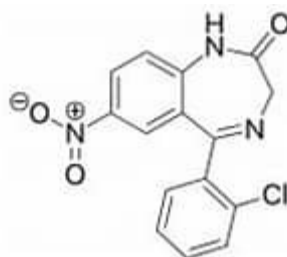
BZDs are categorized based on their elimination half-life. Short-acting BZDs have a median elimination half-life of 1-12 hours, intermediate-acting BZDs have an average elimination half-life of 12-40 hours, and long-acting BZDs have an average elimination half-life of 40-250 hours.

BZDs can also be classified based on their relative potency. The early BZDs were of low to medium efficacy. They include long-acting chlordiazepoxide, the first BZD developed, as well as oxazepam

and temazepam. Due to their efficacy as well as their low toxicity, they became first-line treatments for diseases such as insomnia and anxiety. Subsequently, high-potency BZDs (alprazolam, lorazepam, and clonazepam) were identified. These emerging medications resulted in new indications for use: as a treatment for panic disorders as adjuvants to selective serotonin reuptake inhibitors for the treatment of obsessive-compulsive disorder, and as adjuvants to antipsychotics for the treatment of acute mania or agitation.[24, 26, 29]

BDZ Commonly Used In tertiary care Hospital.

Clonazepam



Clonazepam is a high-potency BZD. Clonazepam acts as both a GABA-A receptor agonist and a serotonin agonist. Clonazepam has anticonvulsant and anxiolytic properties. In association with serotonin reuptake blockers, Clonazepam appears to accelerate therapeutic response to panic disorder. Because clonazepam has a limited lipid solubility, it is less likely to cause anterograde amnesia than other high-potency BZDs.

Clonazepam is available in 0.5 mg, 1 mg, and 2 mg immediate-release tablets, as well as 0.125 mg, 0.25 mg, 0.5 mg, 1 mg, and 2 mg orally disintegrating tablets (ODT). To reduce sleeplessness, it can be taken once before bed. The patient should take ODT pills with water, swallowing the entire tablet as soon as it is removed from the package. Clonazepam is quickly absorbed after oral consumption.[30,31]

After oral administration, the peak plasma concentration is obtained within one to four hours, and it is approximately 85% bound to plasma proteins. Clonazepam is metabolized extensively by the liver's cytochrome P-450 enzymes. Clonazepam has an elimination half-life of 30 to 40 hours.[32]

MOA:

As a long-acting benzodiazepine, clonazepam is very strong. Using GABA-A receptors as a positive dynamic modulator has pharmacological effects. The endogenous ligand for the GABA-A receptor, gamma-aminobutyric acid, is a ligand-gated chloride ion-selective channel. By increasing the frequency of chloride channel opening, which causes the neurons to become hyperpolarized and fire less frequently, benzodiazepines (BZDs) increase GABA-A activity. This lowers the excitability of the neurons and has the calming effect of reducing their excitability.[33]

Common Side Effects

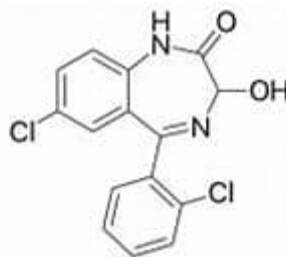
The use of clonazepam is most commonly associated with lethargy, fatigue, sedation, drowsiness, and motor impairment (impaired coordination, impaired balance, dizziness).

Toxicity

Clonazepam has a therapeutic range of 0.02 to 0.08 mcg/mL. Any concentration of more than 0.08 mcg/mL is deemed hazardous. Overdose symptoms appear quickly.

- INITIAL SYMPTOMS: Somnolence, Diplopia, Slurred speech, Motor impairment.
- SEVERE SYMPTOMS: Respiratory depression, Hypoxemia Apnea, Hypotension, Bradycardia, Cardiac arrest, Pulmonary aspiration, Coma.[34,35,36]

Lorazepam



Lorazepam is FDA-approved for the short-term (4-month) treatment of status epilepticus, anesthesia premedication in adults to reduce anxiety or to produce sedation/amnesia, and anxiety-related insomnia.

The benzodiazepine drug lorazepam was created by DJ Richards. In 1977, it was introduced to the American market. Due to its quick (1–3 minute) onset of action when administered intravenously, lorazepam is frequently used as the preferred sedative and anxiolytic in the inpatient setting. Additionally, one of the few sedative-hypnotics with a comparatively unblemished side effect profile is lorazepam.[37]

MOA

In the central nervous system (CNS), lorazepam interacts with benzodiazepine receptors on postsynaptic GABA-A ligand-gated chloride channel neurons. The conductance of chloride ions in the cell is increased as a result of the enhancement of GABA's inhibitory actions. The cellular plasma membrane becomes hyperpolarized and stabilized as a result of this change in chloride ions. While its inhibitory activity in the cerebral cortex is advantageous in seizure disorders, its inhibitory action in the amygdala is advantageous in anxiety disorders

Administration

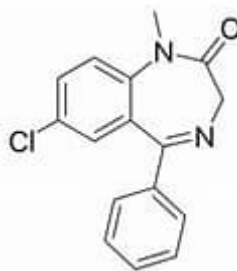
Oral dosage forms of lorazepam include 0.5 mg, 1 mg, 2 mg, oral concentrate solution in a 2 mg/mL dose, 1 mg extended-release capsule, 2 mg extended-release capsule, and 3 mg extended-release capsule. Additionally, it can be given intravenously (IV) or intramuscularly (IM) using a 2 mg/mL solution or a 4 mg/mL solution. If given intravenously, the drug takes effect in 1 to 3 minutes; if given orally, it takes effect in 15 to 30 minutes.

One of the most frequently prescribed medications for treating alcohol withdrawal is lorazepam, according to the clinical practice recommendations of the American Society of Addiction Medicine.[37,38]

Adverse effects

- Serious adverse effects: Respiratory depression, Respiratory failure, Seizures, Suicidality Dependency and abuse, Tachycardia, Hypotension.
 - Common adverse effects: Sedation, Dizziness, Asthenia, Ataxia, and Local injection site reaction.
- Toxicity: When used in excess, lorazepam can lead to CNS and respiratory depression. Hypotension, ataxia, confusion, coma, excessive sleepiness, muscle weakness, and even death can result from it. The use of benzodiazepines with opioids at the same time might cause respiratory depression, coma, and even death. Like other benzodiazepines, lorazepam is infrequently linked to high serum ALT levels, and the drug very rarely causes clinically obvious liver damage.[38,39]

Diazepam



Diazepam is a benzodiazepine drug that has received FDA approval for the treatment of anxiety disorders, the short-term relief of anxiety symptoms, spasticity linked to upper motor neuron disorders, adjunct therapy for muscle spasms, preoperative anxiety relief, the treatment of some patients with refractory epilepsy, an adjunct in the treatment of status epilepticus, and management of certain refractory epilepsy patients. Sedation in the ICU is a common off-label (non-FDA approved) usage for diazepam.

MOA:

Gamma-aminobutyric acid (GABA) is active at several locations, and benzodiazepines influence its activity to produce their effects. Specifically, on GABA-A receptor chloride ion channels, benzodiazepines bind at an allosteric location at the interface between the alpha and gamma subunits. Chloride channels open more frequently as a result of diazepam's allosteric interaction at the GABA-A receptor, increasing the conductance of chloride ions. This change in charge causes the neuronal membrane to become hyperpolarized, which reduces neuronal excitability. The anxiolytic effects of diazepam are specifically caused by allosteric binding in the limbic system. The principal mediator of the myorelaxant effects of diazepam is allosteric binding within the spinal cord and motor neurons. Diazepam acts as a sedative, an amnestic, and an anticonvulsant via binding to receptors in the brain, thalamus, and cerebellum.[40,41]

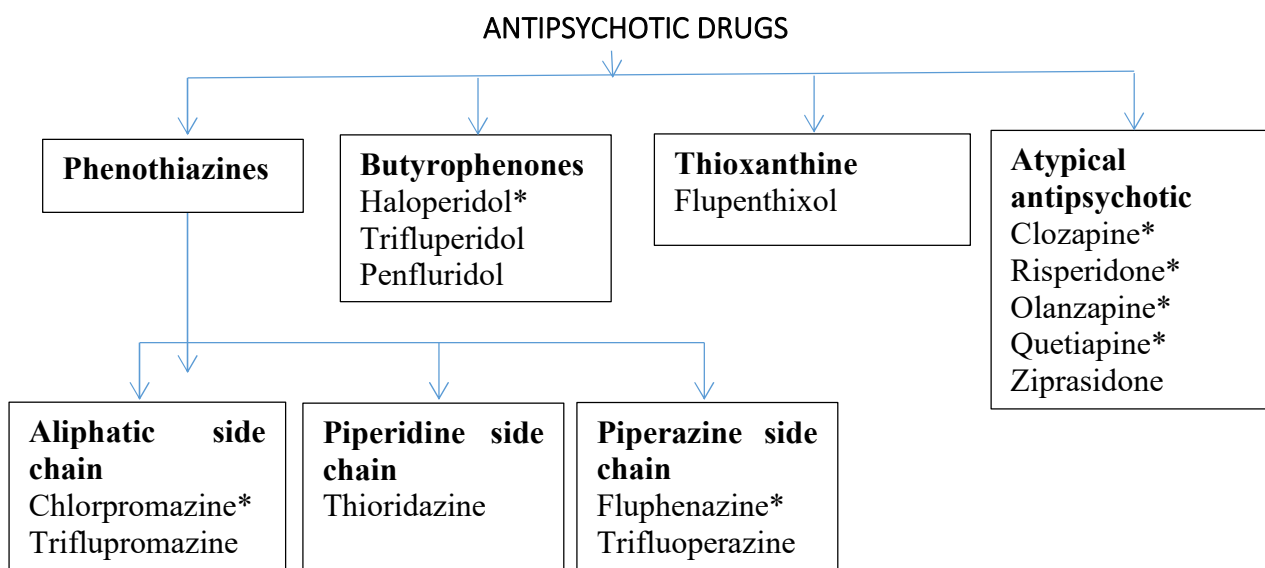
Administration:

There are numerous forms of diazepam, including oral pills, intravenous injections (IV), intramuscular injections (IM), and rectal gel. When opposed to IM, oral pills provide a more consistent absorption and controlled release. When given intravenously, diazepam takes 1 to 3 minutes to start working, whereas the time between oral doses to start working varies from 15 to 60 minutes. Diazepam also has a lengthy half-life, lasting for more than 12 hours.[42,43]

Adverse effects:

Diazepam can have undesirable effects such as dependency and benzodiazepine withdrawal syndrome, as well as CNS and respiratory depression, which are common with benzodiazepines.[44]

ANTIPSYCHOTIC DRUGS



*prescribed in tertiary care hospital Osmanabad, MAHARASTRA, INDIA

The use of antipsychotic drugs involves challenges between the benefit of reducing psychotic symptoms and the danger of a variety of side effects.

First-generation antipsychotics are dopamine receptor antagonists (DRA) and are known as typical antipsychotics. They include phenothiazines (Perphenazine, Acetophenazine, Triflupromazine,), Butyrophenones (Haloperidol), and Thioxanthenes (Thiothixene, Chlorprothixene).

Second-generation antipsychotics are serotonin-dopamine antagonists and are also known as atypical antipsychotics. The Food and Drug Administration (FDA) has approved 12 atypical antipsychotics as of the year 2016. They are Risperidone, Olanzapine, Quetiapine, Ziprasidone, Aripiprazole, Paliperidone, Asenapine, Lurasidone, Iloperidone, Cariprazine, Brexpiprazole, And Clozapine.[45,46]

General pharmacology of antipsychotics

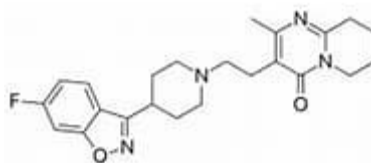
Antipsychotic drugs such as haloperidol and chlorpromazine tend to block dopamine D2 receptors in the dopaminergic pathways of the brain. This means that dopamine released in these pathways has less effect. Excess release of dopamine in the mesolimbic pathway has been linked to psychotic experiences. Decreased dopamine release in the prefrontal cortex, and excess dopamine release in other pathways, are associated with psychotic episodes in schizophrenia and bipolar disorder.[47]

Antipsychotic use has been associated with a variety of adverse reactions, including impotence, weight gain, and metabolic syndrome. Long-term use can produce adverse effects such as tardive dyskinesia, tardive dystonia, and tardive akathisia.

Prevention of these adverse effects is possible through concomitant medication strategies including the use of beta-blockers.[48]

Commonly prescribed Antipsychotic drugs used in tertiary care hospital

Risperidone



It belongs to the benzisoxazole derivatives chemical family and has a high affinity for D2 and 5-hydroxytryptamine (5-HT) receptors. Its main goal is to treat both positive and negative symptoms of schizophrenia. It also causes irritability in children with autism, BD, inappropriate behavior in dementia, and manic episodes associated with BD.

Risperidone can be administered orally or injected intramuscularly. The injection's impact lasts around 2 weeks. Sleepiness, weight gain, and mobility issues are frequent adverse effects. Serious side effects include a potentially permanent movement condition (tardive dyskinesia) and NMS, as well as a high blood sugar level.[49,50]

MOA :

The mechanism through which risperidone works is by temporarily occupying and blocking D2 dopaminergic receptors in the brain. This limits dopaminergic neurotransmission, which in turn regulates schizophrenia symptoms.

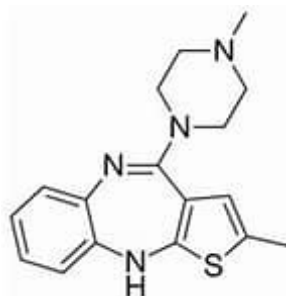
Indications

Risperidone is an atypical antipsychotic medication, first approved for use in the USA by the Food and Drug Administration (FDA) in 1993. The FDA-approved indications for oral risperidone (tablets, oral solution, and M-TABs) include the treatment of:

- Schizophrenia (in adults and children aged 13 and up)
- Bipolar I acute manic or mixed episodes as monotherapy (in adults and children aged ten and up)
- Bipolar I acute manic or mixed episodes adjunctive with lithium or valproate (in adults)
- Autism-associated irritability (in children aged five and up)

The long-acting risperidone injection has received FDA approval in the treatment of schizophrenia and maintenance of bipolar disorder (as monotherapy or adjunctive to valproate or lithium) in adults.[51,52,53]

Olanzapine



Olanzapine is an antipsychotic drug of the second generation (atypical). This medicine has FDA approval for bipolar illness, including mixed or manic episodes, and schizophrenia in patients who are over the age of 13. Treatment-resistant depression and periods of depression linked to bipolar disorder type 1 can both be treated with olanzapine in combination with SSRI fluoxetine. Olanzapine is not FDA-approved for use in patients younger than 13 years old, which is crucial to remember. Furthermore, patients under the age of 10 are not permitted to take olanzapine and fluoxetine together.[54]

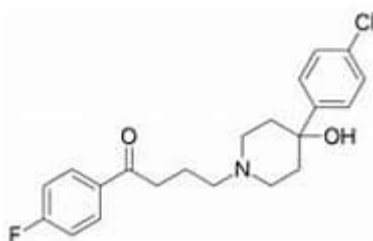
MOA :

Atypical (second-generation) antipsychotic olanzapine works primarily on dopamine and serotonin receptors to achieve its desired effects. It functions as an antagonist on the mesolimbic pathway's dopamine D2 receptors, preventing dopamine from potentially acting at the post-synaptic receptor. Olanzapine allows for typical dopamine neurotransmission by binding loosely to the receptor and easily dissociating.

Adverse effect

Potential weight gain is one of olanzapine's most frequent side effects. Olanzapine increases appetite, which results in hyperphagia and weight gain as a result. It should therefore be taken with caution in individuals who are obese, have little control over their eating habits, and don't regularly exercise to prevent weight gain.[55,56]

Haloperidol



A first-generation (typical) antipsychotic medication with widespread usage is haloperidol. Hallucinations and delusions are two positive symptoms of schizophrenia that are treated with haloperidol. It is FDA-approved for the treatment of schizophrenia, Tourette syndrome, severe behavioral disorders in children (combative and explosive hyperexcitability), and hyperactivity in children (impulsivity, difficulties paying attention for long periods, aggression, mood lability, and low frustration tolerance).

MOA

First-generation (classic) antipsychotics like haloperidol work by blocking the brain's dopamine D2 receptors. This medication has the greatest impact when 72% of dopamine receptors are inhibited. For the D2 receptor, haloperidol is non-selective. Additionally, it blocks the release of noradrenaline, choline, and histamine. Unfavorable medication responses are linked to the blockage of these receptors in numerous ways.

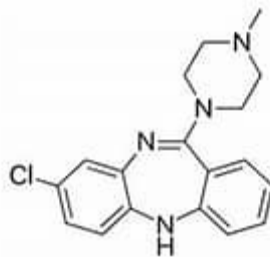
Administration :

Numerous nations make extensive use of haloperidol. It is offered in a variety of formulations. Tablets (0.5 mg, 1 mg, 2 mg, 5 mg, and 10 mg) and an oral concentrate (2 mg/mL) are both available for oral administration. Additionally, there is a nasal spray version of it. Short-acting parenteral solutions (5 mg/mL) for intramuscular injection of haloperidol lactate are available. For long-acting intramuscular preparation, haloperidol decanoate is available.[57,58]

Adverse effects

- Common: Anticholinergic effects - (Elevated temperature, dry mouth, drowsiness or sedation, constipation, urinary retention), sedation, weight gain, erectile dysfunction in males, Oligomenorrhea or amenorrhea in females.
- Uncommon: ECG changes - (QT prolongation, torsade's de pointes), photosensitivity reaction, generalized pruritus, diarrhea, gastrointestinal distress, blood dyscrasia, ejaculatory problems.[59]

Clozapine



An FDA-approved atypical antipsychotic drug for schizophrenia that is resistant to therapy is clozapine. Due to a variety of side effects, clozapine is not the first-line medication of choice, which causes compliance to be a problem for many individuals. It also offers certain benefits, such as fewer relapses and a lower risk of suicide and tardive dyskinesia. Regarding suicide risk, clozapine has been shown to lessen suicidal behavior even in schizophrenia and schizoaffective disorder patients who are not treatment-resistant.

MOA

Second-generation antipsychotics, also referred to as atypical antipsychotics, include clozapine. The two primary symptoms of schizophrenia, hallucinations, and delusions, need the use of antipsychotic medications.[5] Clozapine functions as an antagonist to both dopamine and serotonin receptors as an atypical antipsychotic. It contributes to fewer adverse events and extrapyramidal symptoms by binding to the dopamine D4 receptor with a higher affinity than the dopamine D2 receptor.[60,61]

Administration

Clozapine is available as oral tablets, orally disintegrating tablets, and oral suspension in the following strength. The choice of dosage form depends on patient acceptability and tolerability.

- Oral tablet dosages of 25 mg, 50 mg, 100 mg, and 200 mg
- Orally disintegrating tablet dosages of 12.5 mg, 25 mg, 100 mg, 150 mg, and 200 mg
- Oral suspension dosage of 50 mg/mL (100 mL)

Adverse effects

Constipation, nighttime drooling, muscle stiffness, drowsiness, tremors, orthostatic hypotension, elevated blood sugar levels, and weight gain are typical side effects. Because of clozapine's anticholinergic properties, the risk of extrapyramidal symptoms, such as tardive dyskinesia, is lower than it is with typical antipsychotics.[62]

Conclusion: The current study concluded that Clonazepam and Olanzapine are commonly prescribed for CNS-related diseases. Male patients were highly affected by the psychiatric disorder as compared to female patients. The study demonstrated a rational use of benzodiazepines and antipsychotic medicines, and the negative effects of BZDs and antipsychotic drugs can be decreased by providing information to prescribers and consumers. To avoid any drug dependence issues drug utilization review is an important consideration. Better results can be expected with more involvement of clinical pharmacists in patient care and the development of prescribing guidelines for BZDs and Antipsychotic drugs. The study may have identified areas for optimization, such as reducing the unnecessary use of benzodiazepine derivatives or antipsychotic drugs, promoting nonpharmacological interventions where appropriate, or suggesting alternative treatments with fewer side effects.

Reference

1. Gama H. Drug utilization studies. *Arquivos de medicina*. 2008 Apr;22(2/3):69-74.
2. Enato EF, Chima IE. Evaluation of drug utilization patterns and patient care practices. *West Afr J Pharm*. 2011 Mar 13;22(1):36-41.
3. Kaur S, Rajagopalan S, Kaur N, Shafiq N, Bhalla A, Pandhi P, Malhotra S. Drug utilization study in the medical emergency unit of a tertiary care hospital in North India. *Emergency medicine international*. 2014 May 5.
4. HospitaKaran B. Thakkar¹, Mangal M. Jain², Gauri Billa³, Abhijit Joshi⁴, Akash A. Khobragade, A Drug Utilization Study of Psychotropic Drugs Prescribed in the Psychiatry Outpatient Department of a Tertiary Care.
5. Castrén E. Neurotrophins and psychiatric disorders. *Neurotrophic factors*. 2014:461-79.
6. Henderson M, Harvey SB, overland S, Mykletun A, Hotopf M. Work and common psychiatric disorders. *Journal of the Royal Society of Medicine*. 2011 May;104(5):198-207.
7. LeMoult J, Gotlib IH. Depression: A cognitive perspective. *Clinical Psychology Review*. 2019 Apr 1;69:51-66.
8. Lopez AD, editor. Global burden of disease and risk factors.
9. Benazzi F. Various forms of depression. *Dialogues in clinical neuroscience*. 2022 Apr 1.
10. Wong ML, Licinio J. Research and treatment approaches to depression. *Nature Reviews Neuroscience*. 2001 May;2(5):343-51.
11. Grande I, Berk M, Birmaher B, Vieta E. Bipolar disorder. *The Lancet*. 2016 Apr 9;387(10027):1561-72.
12. Perrotta G. Bipolar disorder: definition, differential diagnosis, clinical contexts and therapeutic approaches. *J Neuroscience and Neurological Surgery*. 2019;5(1).
13. Belmaker RH. Bipolar disorder. *New England Journal of Medicine*. 2004 Jul 29;351(5):476-86.
14. Phillips ML, Kupfer DJ. Bipolar disorder diagnosis: challenges and future directions. *The Lancet*. 2013 May 11;381(9878):1663-71.
15. Carvalho AF, Firth J, Vieta E. Bipolar disorder. *New England Journal of Medicine*. 2020 Jul 2;383(1):58-66.
16. Baldessarini RJ, Tondo L, Vázquez GH. Pharmacological treatment of adult bipolar disorder. *Molecular psychiatry*. 2019 Feb;24(2):198-217.
17. Martin JL, Sainz-Pardo M, Furukawa TA, Martin-Sanchez E, Seoane T, Galan C. Benzodiazepines in generalized anxiety disorder: heterogeneity of outcomes based on a systematic review and meta-analysis of clinical trials. *Journal of Psychopharmacology*. 2007 Sep;21(7):774-82
18. Bandelow B, Boerner R, Kasper S, Linden M, Wittchen HU, Möller HJ. The diagnosis and treatment of generalized anxiety disorder. *Deutsches Ärzteblatt International*. 2013 Apr;110(17):300.
19. Gao K, Sheehan DV, Calabrese JR. Atypical antipsychotics in primary generalized anxiety disorder or comorbid with mood disorders. *Expert Rev Neurother*. 2009 Aug;9(8):1147-58. doi: 10.1586/ern.09.37. PMID: 19673604; PMCID: PMC3432909.
20. Slee A, Nazareth I, Bondaronek P, Liu Y, Cheng Z, Freemantle N. Pharmacological treatments for generalised anxiety disorder: a systematic review and network meta-analysis. *The Lancet*. 2019 Feb 23;393(10173):768-77.
21. Correll CU, Rubio JM, Kane JM. What is the risk-benefit ratio of long-term antipsychotic treatment in people with schizophrenia?. *World Psychiatry*. 2018 Jun;17(2):149-60.
22. Patel KR, Cherian J, Gohil K, Atkinson D. Schizophrenia: overview and treatment options. *Pharmacy and Therapeutics*. 2014 Sep;39(9):638.

23. Kane JM, Correll CU. Pharmacologic treatment of schizophrenia. *Dialogues in clinical neuroscience*. 2022 Apr 1.
24. 1. Shorter E (2005). "Benzodiazepines". *A Historical Dictionary of Psychiatry*. Oxford University Press. pp. 41–42.
25. Page C, Michael C, Sutter M, Walker M, Hoffman BB (2002). *Integrated Pharmacology* (2nd ed.).
26. Agarwal SD, Landon BE. Patterns in outpatient benzodiazepine prescribing in the United States. *JAMA network open*. 2019 Jan 4;2(1):e187399-.
27. 5. Griffin CE, Kaye AM, Bueno FR, Kaye AD. Benzodiazepine pharmacology and central nervous system–mediated effects. *Ochsner Journal*. 2013 Jun 20;13(2):214-23.
28. Peng L, Morford KL, Levander XA. Benzodiazepines and related sedatives. *Medical Clinics*. 2022 Jan 1;106(1):113-29.
29. Pottie K, Thompson W, Davies S, Grenier J, Sadowski CA, Welch V, Holbrook A, Boyd C, Swenson R, Ma A, Farrell B. Deprescribing benzodiazepine receptor agonists: Evidence-based clinical practice guideline. *Canadian Family Physician*. 2018 May 1;64(5):339-51.
30. Dokkedal-Silva V, Berro LF, Galduróz JC, Tufik S, Andersen ML. Clonazepam: indications, side effects, and potential for nonmedical use. *Harvard Review of Psychiatry*. 2019 Sep 1;27(5):279-89.
31. Basit H, Kahwaji CI. Clonazepam.
32. Patsalos PN, Patsalos PN. Clonazepam. *Antiseizure Medication Interactions: A Clinical Guide*. 2022:61-4.
33. Raggi A, Mogavero MP, DelRosso LM, Ferri R. Clonazepam for the management of sleep disorders. *Neurological Sciences*. 2023 Jan;44(1):115-28.
34. Ghiasi N, Bhansali RK, Marwaha R. Lorazepam. *InStatPearls [Internet]* 2021 Dec 5. StatPearls Publishing.
35. Noerr B. Lorazepam. *Neonatal Network*. 2000 Dec 1;19(8):65-7.
36. Sjö O, Hvidberg EF, Naestoft J, Lund M. Pharmacokinetics and side-effects of clonazepam and its 7-amino-metabolite in man. *European Journal of Clinical Pharmacology*. 1975 May;8:249-54.
37. Ameer B, Greenblatt DJ. Lorazepam: A Review of its Clinical: Pharmacological Properties and Therapeutic Uses. *Drugs*. 1981 Mar;21:161-200.
38. Brown CS, Markowitz JS, Moore TR, Parker NG. Atypical antipsychotics: part II adverse effects, drug interactions, and costs. *Annals of Pharmacotherapy*. 1999 Feb;33(2):210-7.
39. Kutt H, Resor SR. Lorazepam. *InThe Medical Treatment of Epilepsy 2020 Sep 10* (pp. 353-356). CRC Press.
40. Dhaliwal JS, Rosani A, Saadabadi A. Diazepam. *InStatPearls [Internet]* 2021 Sep 14. StatPearls Publishing.
41. Dean L. Diazepam therapy and CYP2C19 genotype.
42. Mandelli M, Tognoni G, Garattini S. Clinical pharmacokinetics of diazepam. *Clinical pharmacokinetics*. 1978 Feb;3:72-91.
43. Jacob RS, de Souza Santos LV, d'Auriol M, Lebron YA, Moreira VR, Lange LC. Diazepam, metformin, omeprazole and simvastatin: a full discussion of individual and mixture acute toxicity. *Ecotoxicology*. 2020 Sep;29(7):1062-71
44. Wu W, Zhang L, Xue R. Lorazepam or diazepam for convulsive status epilepticus: A meta-analysis. *Journal of Clinical Neuroscience*. 2016 Jul 1;29:133-8..
45. Kaar SJ, Natesan S, Mccutcheon R, Howes OD. Antipsychotics: mechanisms underlying clinical response and side-effects and novel treatment approaches based on pathophysiology. *Neuropharmacology*. 2020 Aug 1;172:107704.

46. Orsolini L, Tomasetti IC, Valchera A, Vecchiotti R, Matarazzo I, Vellante F, Iasevoli F, Buonaguro EF, Fornaro M, Fiengo AL, Martinotti G. An update of safety of clinically used atypical antipsychotics. *Expert opinion on drug safety*. 2016 Oct 2;15(10):1329-47.
47. Alexander GC, Gallagher SA, Mascola A, Moloney RM, Stafford RS. Increasing off-label use of antipsychotic medications in the United States, 1995–2008. *Pharmacoepidemiology and drug safety*. 2011 Feb;20(2):177-84.
48. Mobed A, Ahmadalipour A, Fakhari A, Kazem SS, Saadi GK. Bioassay: A novel approach in antipsychotic pharmacology. *Clinica Chimica Acta*. 2020 Oct 1;509:30-5.
49. Stroup TS, Gray N. Management of common adverse effects of antipsychotic medications. *World Psychiatry*. 2018 Oct;17(3):341-56.
50. Ereshefsky L, Lacombe S. Pharmacological profile of risperidone. *The Canadian Journal of Psychiatry/La Revue canadienne de psychiatrie*. 1993 Sep.
51. Corena-McLeod M. Comparative pharmacology of risperidone and paliperidone. *Drugs in R&D*. 2015 Jun;15(2):163-74.
52. McNeil SE, Gibbons JR, Cogburn M. Risperidone. InStatPearls [Internet] 2022 May 17. StatPearls Publishing.
53. Grinchii D, Dremencov E. Mechanism of action of atypical antipsychotic drugs in mood disorders. *International Journal of Molecular Sciences*. 2020 Dec 15;21(24):9532.
54. Chopko TC, Lindsley CW. Classics in chemical neuroscience: risperidone. *ACS chemical neuroscience*. 2018 Apr 25;9(7):1520-9.
55. Prommer E. Olanzapine: palliative medicine update. *American Journal of Hospice and Palliative Medicine®*. 2013 Feb;30(1):75-82.
56. Thomas K, Saadabadi A. Olanzapine.
57. Martel ML, Klein LR, Rivard RL, Cole JB. A large retrospective cohort of patients receiving intravenous olanzapine in the emergency department. *Academic Emergency Medicine*. 2016 Jan;23(1):29-35.
58. Tyler MW, Zaldivar-Diez J, Haggarty SJ. Classics in chemical neuroscience: haloperidol. *ACS chemical neuroscience*. 2017 Mar 15;8(3):444-53.
59. Andersen-Ranberg NC, Poulsen LM, Perner A, Wetterslev J, Estrup S, Hästbacka J, Morgan M, Citerio G, Caballero J, Lange T, Kjær MB. Haloperidol for the treatment of delirium in ICU patients. *New England Journal of Medicine*. 2022 Dec 29;387(26):2425-35.
60. Nielsen J, Damkier P, Lublin H, Taylor D. Optimizing clozapine treatment. *Acta Psychiatrica Scandinavica*. 2011 Jun;123(6):411-22.
61. Land R, Siskind D, Mcardle P, Kisely S, Winckel K, Hollingworth SA. The impact of clozapine on hospital use: a systematic review and meta-analysis. *Acta Psychiatrica Scandinavica*. 2017 Apr;135(4):296-309.
62. De Berardis D, Rapini G, Olivieri L, Di Nicola D, Tomasetti C, Valchera A, Fornaro M, Di Fabio F, Perna G, Di Nicola M, Serafini G. Safety of antipsychotics for the treatment of schizophrenia: a focus on the adverse effects of clozapine. *Therapeutic advances in drug safety*. 2018 May;9(5):237-56.



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