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КАЗАХСТАН КАК ФОРМИРУЮЩИЙСЯ РЫНОК ДЛЯ SHOPIFY-ПРОДАВЦОВ: БАРЬЕРЫ ВХОДА, ПЛАТЁЖНАЯ ИНФРАСТРУКТУРА И ЛОГИСТИКА

Аннотация. В статье исследуется потенциал Казахстана как формирующегося рынка для международных продавцов, использующих платформу Shopify. На основе анализа вторичных данных и отраслевых отчётов выявлены три группы барьеров входа: платёжно-инфраструктурные (недоступность Stripe и Shopify Payments), логистические (высокая доля маркетплейсов, таможенное регулирование ЕАЭС) и институциональные (языковая среда, потребительские предпочтения). Установлено, что реализация выхода на казахстанский рынок через Shopify требует адаптации бизнес-модели под местную инфраструктуру.

Ключевые слова: Shopify, электронная коммерция, Казахстан, барьеры входа, платёжная инфраструктура, кросс-бордерная торговля, фулфилмент, emerging market.

Введение. Глобальная платформа Shopify объединяет более 4,8 млн активных продавцов и обеспечивает инфраструктуру для кросс-бордерной торговли в более чем 175 странах [1]. Казахстан — крупнейший рынок электронной коммерции Центральной Азии — демонстрирует динамичный рост: объём рынка увеличился в 7 раз с 2020 года и достиг 3,2 трлн тенге в 2024 году, составив 14,1% от общего объёма розничной торговли [2]. Тем не менее число Shopify-магазинов в Казахстане составляет около 250–300 активных магазинов [3] — ничтожно мало на фоне масштаба рынка. Это противоречие определяет актуальность настоящего исследования.

Цель статьи — систематизировать барьеры, препятствующие выходу международных Shopify-продавцов на казахстанский рынок, и оценить перспективы их преодоления через развитие локальной инфраструктуры.

Рыночный контекст. Рынок e-commerce Казахстана демонстрирует устойчивый рост на протяжении последних пяти лет (рисунок 1). В первом полугодии 2025 года рынок достиг 1,7 трлн тенге (+19% г/г) [4]. Доля e-commerce в розничной торговле приблизилась к 17%, что соответствует общемировому тренду. На рисунке 2 представлена структура рынка: маркетплейсы занимают 92% объёма продаж, тогда как независимые онлайн-магазины — лишь 8% [4].

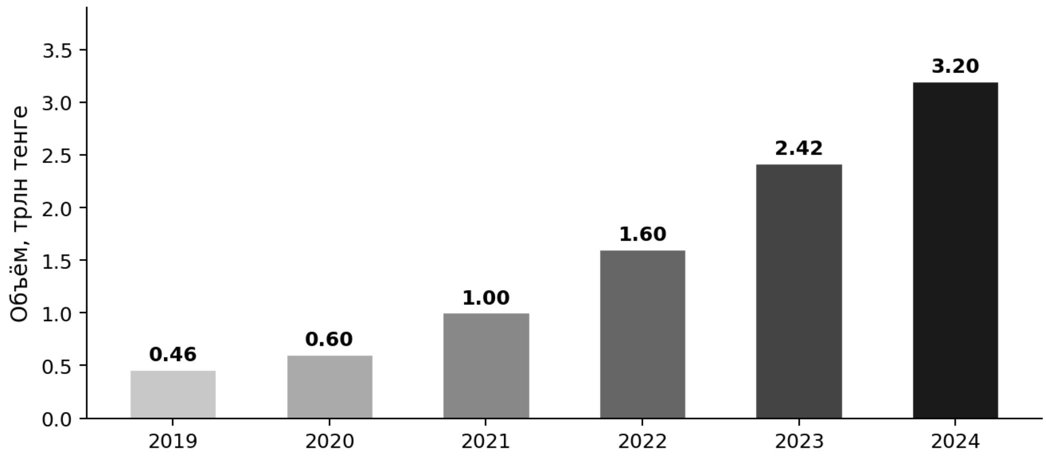

Рисунок 1 — Динамика объёма e-commerce рынка Казахстана, 2019–2024 гг., трлн тенге

Как видно из рисунка 1, объём казахстанского рынка электронной коммерции вырос почти в 7 раз за пять лет — с 0,46 трлн тенге в 2019 году до 3,20 трлн тенге в 2024 году. Наиболее высокий темп прироста зафиксирован в 2021–2022 годах, что совпадает с периодом постпандемийного ускорения цифровизации торговли. Устойчивая восходящая динамика свидетельствует о значительном потенциале рынка для новых участников, в том числе международных Shopify-продавцов.

Рисунок 2 — Структура казахстанского рынка e-commerce (H1 2025)

Рисунок 2 наглядно демонстрирует высокую концентрацию казахстанского e-commerce на маркетплейсах: в первом полугодии 2025 года на них приходилось 92% объёма продаж [4]. Независимые онлайн-магазины, включая Shopify-магазины, занимают лишь 8% рынка. Это указывает на доминирование маркетплейс-модели потребления и означает, что Shopify-продавцам при выходе на казахстанский рынок предстоит конкурировать не только с другими магазинами, но и с устойчивой потребительской привычкой.

Таблица 1 — Сравнительная характеристика e-commerce платформ Казахстана

Платформа	Тип	Аудитория/охват	Платежная система	Shopify-совместимость
Kaspi.kz	Маркетплейс + супер-апп	>12 млн активных пользователей	Kaspi Pay (доминирует)	Нет нативной интеграции
Wildberries	Маркетплейс	Экспорт из РК вырос до $614 млн (2024)	Kaspi Pay, карты	Нет
Ozon	Маркетплейс	Активная экспансия в РК	Карты, BNPL	Нет
Shopify	Независимый онлайн-магазин	~250–300 магазинов в РК	Stripe/Shopify Pay — недоступны в РК	Да (нативная платформа)
AliExpress	Маркетплейс	Кросс-бордер из Китая	Alipay, карты	Нет
Flip.kz	Маркетплейс (нишевый)	26-е место Forbes KZ 2024; книги, косметика, электроника	Kaspi Pay, карты	Нет (партнёрская модель с фулфилментом)
Lamoda	Fashion-маркетплейс	Продажи в РК: ~1,08 млрд руб. (2025, −40% г/г); рынок — неприоритетный	Карты РФ/РК	Нет

Источники: [1, 3, 4, 5, 6]

Таблица 1 отражает конкурентную среду казахстанского e-commerce. Все крупнейшие платформы — Kaspi.Kz, Wildberries, Ozon, AliExpress — функционируют по маркетплейс-модели и не имеют нативной интеграции с Shopify. Примечателен случай Lamoda: несмотря на присутствие на рынке, платформа зафиксировала падение продаж в Казахстане на 40% в 2025 году, что свидетельствует о сложности удержания позиций без адаптации к местной инфраструктуре. Flip.Kz, занимающий нишу книг и косметики, работает через партнёрскую модель с фулфилмент-операторами, что указывает на жизнеспособность подобного подхода для небольших специализированных платформ. Shopify остаётся единственной нативной платформой для независимых магазинов, однако её проникновение на рынке пока минимально.

Барьеры входа для Shopify-продавцов. На основе анализа вторичных данных выявлены три группы барьеров. Систематизация представлена в таблице 2.

Таблица 2 — Барьеры входа на казахстанский рынок для Shopify-продавцов

Группа барьеров	Барьер	Содержание	Степень критичности
Платёжные	Недоступность Stripe / Shopify Payments	Официально не работают в РК и СНГ; нет нативной интеграции Kaspi Pay	Высокая
Платёжные	Высокие комиссии альтернатив	PayPal — 3,9%; Payoneer — порог по обороту	Средняя
Логистические	Таможенный порог и пошлины	Беспошлинно до 200 евро/31 кг; с 2026 — НДС 12%	Высокая
Логистические	Обязательное декларирование ЕАЭС	+4–5 тыс. тенге на отправление	Средняя
Логистические	Сроки доставки	14–21 день из Европы/США vs 1–3 дня у маркетплейсов	Высокая
Институциональные	Языковая среда	Русский — основной коммерческий язык; требует локализации	Средняя
Институциональные	Потребительские предпочтения	Привычка к маркетплейс-модели (92% рынка)	Высокая
Институциональные	Низкая узнаваемость Shopify	Потребители не привыкли к независимым магазинам	Средняя

Источники: составлено автором на основе [4, 5, 6, 7]

Таблица 2 систематизирует барьеры по трём группам. Наиболее критичными (выделены красным) являются: недоступность Stripe/Shopify Payments, таможенные пошлины и сроки доставки, а также доминирование маркетплейс-модели в потребительском поведении. Барьеры средней критичности (выделены жёлтым) — высокие комиссии платёжных альтернатив, языковая среда и низкая узнаваемость Shopify — поддаются операционному решению при наличии локального партнёра. Таким образом, большинство выявленных барьеров носит инфраструктурный характер и может быть снято через локализацию бизнес-модели.

Возможности: роль локального фулфилмента. Несмотря на выявленные барьеры, ряд факторов формирует благоприятные условия. Членство в ЕАЭС обеспечивает упрощённое таможенное оформление в торговле с Россией, Беларусью, Арменией и Кыргызстаном. Рост среднего чека в специализированных онлайн-магазинах (+17% г/г в 2025 году) указывает на формирование сегмента потребителей, готовых покупать в независимых магазинах [4]. Примечателен и опыт Lamoda: продажи платформы в Казахстане сократились на 40% в 2025 году — до ~1,08 млрд руб. [8] — что косвенно подтверждает: без локальной инфраструктуры и адаптации удержаться на рынке затруднительно. Локальный фулфилмент-оператор способен выступить посредником между международным Shopify-продавцом и рынком: принять товар на склад, обеспечить таможенное сопровождение, интегрировать Kaspi Pay и организовать доставку через локальных курьеров. Подобная модель снимает большинство операционных барьеров, перекладывая инфраструктурные риски на локального партнёра.

Заключение. Казахстан представляет собой формирующийся рынок с высоким потенциалом для Shopify-продавцов, однако его реализация сдерживается системными барьерами трёх групп: платёжными, логистическими и институциональными. Преодоление этих барьеров требует не прямого выхода через Shopify, а адаптированной модели с использованием локальной инфраструктуры — прежде всего фулфилмент-операторов с интеграцией в казахстанскую платёжную и логистическую экосистему.

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TRADITION WITHOUT A PRICE TAG? CONSERVATION VALUES AND FINANCIAL WELLBEING ACROSS FOUR CENTRAL ASIAN SOCIETIES

Abstract: A widespread Central Asian narrative holds that tradition is financially ruinous — that families overspend on customary celebrations (weddings, jubilees, the Kazakh toi) under social pressure rather than choice, a view crystallised by a 2025 Uzbekistan survey reporting wedding costs "driven by social pressure, not choice" [1]. Whether traditionalism as a disposition actually tracks lower financial wellbeing has not been tested. Using World Values Survey Wave 7 data from four Central Asian societies — Kazakhstan, Uzbekistan, Kyrgyzstan, and Tajikistan (pooled N = 4,535) — we estimate the association between endorsement of tradition and conformity values and satisfaction with household finances. Contrary to the strain narrative, stronger traditionalism predicts higher financial satisfaction in the pooled model with country fixed effects and full socio-demographic controls ($b = 0.33$ on a 0–10 scale, $p < .001$), and the association is positive and significant in all four countries ($b = 0.23$ in Tajikistan to 0.58 in Kazakhstan). It is robust to survey weighting, region-clustered standard errors, an ordinal-logit specification, an alternative outcome (subjective social class), and general life satisfaction, and does not differ by age. About one-fifth of the association runs through a greater sense of control over one's life, and it is largest among the financially vulnerable (traditionalism × income, $p = .047$) — consistent with conservation values acting as a buffer rather than a burden. A deliberate disconfirming test shows that a parenting-values measure of conservatism is negatively associated, so the result is specific to self-identified tradition/conformity disposition, not to every conservatism measure. Conservation values are thus not, at the dispositional level, a vector of financial hardship in Central Asia; the "tradition is expensive" story is better understood as event-specific, concentrated in discrete high-stakes rituals — a distinction that motivates a targeted primary survey of toi spending, which this study frames and sets up.

Keywords: conservation values; conformity; financial wellbeing; Central Asia; World Values Survey; ceremonial spending; toi

1. Introduction

Across Central Asia, few social topics generate as much public commentary as the cost of tradition. Newspapers, social-media debates, and even government initiatives in Kazakhstan and Uzbekistan return repeatedly to the same concern: that families spend ruinously on large customary celebrations — weddings, circumcision feasts, jubilees, and the umbrella institution Kazakhs call *toi* — and that they do so not because they freely choose to, but because the weight of social expectation leaves them little alternative. In 2025 a widely reported survey in Uzbekistan gave this intuition a number: a majority of respondents indicated that their social circle pressured them into expensive wedding celebrations, planned or actual wedding costs commonly equalled or exceeded a family's annual income, and more than two in five respondents regretted the amount they had spent. The headline conclusion — wedding costs are "driven by social pressure, not choice" — captured a regional anxiety in a single phrase [1; 2].

That anxiety rests on an implicit causal claim: that *being traditional* is financially costly. If the people who most value tradition and most readily conform to social expectation are also the people whom that expectation impoverishes, we would expect to observe, at the population level, a negative association between conservation values and financial wellbeing. This is an empirically testable proposition, and yet — despite the volume of commentary — it has not, to our knowledge, been tested across the region using comparable, nationally representative data. Public discussion has leapt from a salient and real phenomenon (expensive ceremonies) to a general dispositional claim (traditional people are worse off) without checking whether the general claim holds.

This study tests it. Drawing on the seventh wave of the World Values Survey (WVS), we analyse four Central Asian societies for which comparable data exist — Kazakhstan, Uzbekistan, Kyrgyzstan, and Tajikistan — and ask a deliberately simple question: do individuals who more strongly endorse tradition and conformity values report lower satisfaction with their household financial situation? Because the four countries share the *toi* complex of customary obligations while differing in income, religiosity, and recent economic trajectory, they form a natural comparative frame: a finding that recurs across all four is far more credible than one resting on a single national sample.

The contribution is fourfold. First, we provide the first cross-country, individual-level test in Central Asia of the "tradition is expensive" proposition as a dispositional claim, separating it from the event-specific phenomenon (ceremonial overspending) that motivates it. Second, the dispositional claim is not merely unsupported but reversed: across all four countries, traditionalism predicts higher financial satisfaction, independent of income, religiosity, education, marital status, age, sex, and urban residence. Third, we test mechanism and moderation — whether a greater sense of personal control mediates the association, and whether conservation values disproportionately benefit the financially vulnerable. Fourth, by showing where the strain narrative does and does not hold, we sharpen and frame the targeted primary survey of toi spending, now in preparation, as the necessary complement to this analysis.*dispositional* claim, separating it from the *event-specific* phenomenon (ceremonial overspending) that motivates it. Second, we show that the dispositional claim is not merely unsupported but reversed: across all four countries, traditionalism predicts *higher* financial satisfaction, robustly and independent of income, religiosity, education, marital status, age, sex, and urban residence. Third, we move beyond description to *mechanism and moderation* — testing whether a greater sense of personal control mediates the association, and whether conservation values disproportionately benefit the financially vulnerable (a buffering hypothesis). Fourth, by demonstrating where the strain narrative does and does not hold in the data — and by reporting a measure that disconfirms a naïve "all conservatism helps" reading — we sharpen the question that a targeted primary survey of *toi* spending should ask, and frame that survey, now in preparation, as the necessary complement to the present population-level analysis.

2. Theoretical Framework and Literature

2.1 Conservation values: tradition and conformity

The study of human values offers a precise vocabulary for what public debate calls "being traditional." In Shalom Schwartz's theory of basic human values [3], *tradition* (respect for and commitment to the customs and ideas that one's culture or religion provides) and *conformity* (restraint of actions likely to upset others or violate social expectations) sit adjacent to one another in the "conservation" quadrant of the value circle, opposite the "openness to change" values of self-direction and stimulation. The two are conceptually distinct — tradition is oriented to inherited custom, conformity to immediate social approval — but they are empirically correlated and jointly capture an orientation toward maintaining, rather than challenging, the social order [8]. The WVS includes single-item measures of both, derived from the Schwartz Portrait Values framework, allowing us to construct a compact index of conservation orientation.

2.2 The mechanism behind the strain narrative: susceptibility to social influence

Why might conservation values translate into spending? The most developed account is the consumer-behaviour literature on *susceptibility to interpersonal influence*. Bearden, Netemeyer, and Teel (1989) showed that individuals differ systematically in the degree to which their purchasing decisions are governed by the expectations of others — through *normative* influence (buying what will win approval) and *informational* influence (taking others' behaviour as evidence of what is correct) [4]. Where consumption is highly visible and socially evaluated — as ceremonial spending conspicuously is — normative susceptibility provides a clear route from a conformist disposition to costly expenditure. This is precisely the mechanism the strain narrative invokes, and it is the mechanism a primary survey of *toi* spending can measure directly. The present study tests whether that mechanism is strong enough, and general enough, to leave a dispositional fingerprint on financial wellbeing at the population level.

2.3 Two competing hypotheses

The "tradition as cost" hypothesis (H1a). If conservation values reliably drive socially-pressured spending across domains, then more traditional individuals should accumulate greater financial strain, and we should observe a *negative* association between traditionalism and financial satisfaction.

The "tradition as social capital" hypothesis (H1b). An older and equally well-grounded literature points the other way. Conservation values are embedded in dense networks of reciprocal obligation: the same customs that impose ceremonial costs also mobilise mutual aid, intergenerational support, and community insurance against shocks [5]. Traditional and religious communities frequently report *higher* subjective wellbeing, attributable to belonging, social support, and meaning [6]. Furthermore, the "aspiration" literature (in the tradition of Easterlin) suggests that satisfaction depends not only on resources but on the gap between resources and expectations; individuals anchored in tradition may hold more modest material aspirations and therefore report greater satisfaction at a given income [7]. Both mechanisms predict a *positive* association between traditionalism and financial satisfaction.

These hypotheses are mutually exclusive in sign, which makes the test clean. We further examine:

- H2 (generational). The strain narrative is most often told about *young* people facing marriage-related costs. If the dispositional effect is concentrated among the young, the traditionalism × age interaction should be negative for younger respondents.

- H3 (cross-national robustness). If any association reflects a genuine regional pattern rather than a single-country artefact, it should recur across all four societies despite their differences.
- H4 (component). Tradition and conformity may contribute unequally; the visible-approval logic of the strain narrative implicates *conformity* in particular.
- H5 (mechanism). If the social-capital/aspiration account (H1b) is correct, part of any positive association should be carried by a greater sense of personal control over one's life and by social trust — i.e., these should *mediate* the traditionalism–satisfaction link.
- H6 (buffering). If conservation values function as social insurance, their benefit for financial peace of mind should be *larger where material resources are scarcer* — a negative traditionalism × income interaction.

2.4 Ceremonial spending in Central Asia

The *toi* complex — encompassing weddings (*üilenu toi*), the *besikke salu* and *tusau kesu* of early childhood, jubilees, and memorial feasts — is a central institution of social life in Kazakhstan and, with local variation, across the region. Ethnographic and journalistic accounts converge on three features relevant here: ceremonies are large and publicly observed; non-participation or visible economising carries reputational cost; and spending is frequently financed through debt, gifts, and reciprocal contribution. These features make ceremonial spending an unusually strong candidate for normative influence — and they are exactly why it is plausible that the *event* is costly even if the *disposition* is not. The point is not speculative: ethnographic work in rural Kazakhstan documents wedding feasts (*toi*) absorbing a large share of household resources and functioning as a primary arena of status competition and reciprocal gift exchange [11], and recent econometric evidence from neighbouring Kyrgyzstan shows that ceremonial expenditure measurably crowds out other household spending, including food [12]. Both findings concern *ceremonial events*, not general disposition — exactly the distinction our design is built to separate.

3. Data and Methods

3.1 Data

Data are drawn from the seventh wave of the World Values Survey (2017–2022) [9], a cross-national programme of nationally representative surveys conducted through face-to-face interviews with adults aged 18 and over. We restrict the sample to the four Central Asian countries fielded in Wave 7: Kazakhstan (n = 1,276), Uzbekistan (n = 1,250), Kyrgyzstan (n = 1,200), and Tajikistan (n = 1,200), for a combined raw sample of 4,926. After listwise deletion on the analytic variables, the pooled models retain N = 4,535. The data are public and de-identified; secondary analysis of the WVS requires no additional human-subjects approval, a point we state explicitly because it bears on the contrast with the primary survey discussed below.

3.2 Measures

Outcome — financial wellbeing. Satisfaction with the household financial situation (WVS Q50), measured on a 1–10 scale from completely dissatisfied to completely satisfied. As a robustness outcome we use subjective social class (Q287), recoded so that higher values indicate higher self-placement.

Predictor — traditionalism. A two-item index averaging the Schwartz tradition item (Q79: "tradition is important to this person; to follow the customs handed down by religion or family") and the conformity item (Q78: "it is important to this person to always behave properly;

to avoid doing anything people would say is wrong"). Both items are recoded so that higher values denote stronger endorsement (original scale: 1 = very much like me to 6 = not at all like me, reversed). The two items cohere acceptably for a two-item index in every country (Spearman ρ = 0.57, 0.55, 0.50, 0.52 in Kazakhstan, Uzbekistan, Kyrgyzstan, and Tajikistan respectively); we also report them separately.

Controls. Income decile (Q288, self-placed 1–10); importance of God as a measure of religiosity (Q164, 1–10); education (Q275R, three levels); sex (female = 1); age in years (Q262); marital status (currently married = 1); and urban residence (derived from settlement type). Country fixed effects absorb all stable between-country differences in the pooled models.

Table A1 (Appendix) lists every variable, its WVS code, scale, and recoding.

3.3 Analytic strategy

The primary specification (Model 1) is an ordinary least squares regression of financial satisfaction on traditionalism and the full control set, with country fixed effects and heteroskedasticity-robust (HC1) standard errors. Model 2 re-estimates the traditionalism coefficient separately within each country to assess cross-national robustness (H3). Model 3 adds a traditionalism × young (≤30) interaction (H2). Model 4 substitutes subjective social class as the outcome; Model 5 re-estimates Model 1 with WVS sampling weights; Model 6 enters tradition and conformity as separate predictors (H4).

To move beyond description, we add four analyses. We report standardized coefficients with standard errors clustered on sub-national region (44 regions) so the traditionalism effect can be compared in magnitude to income and judged robust to within-region correlation. We test mechanism (H5) with a standard mediation decomposition [10]: estimating the effect of traditionalism on two candidate mediators — sense of control over life (Q48) and social trust (Q57) — and then the total effect of traditionalism on financial satisfaction with and without the mediators, reporting the indirect (a × b) paths and the proportion mediated. We test buffering (H6) with a traditionalism × income interaction. Finally, we probe robustness with a pooled ordinal logit (relaxing the linear-outcome assumption), an alternative wellbeing outcome (life satisfaction, Q49), and a convergent-validity check using an independent, parenting-values measure of conservatism (valuing that children learn religious faith and obedience). All analyses were conducted in Python using `pandas` and `statsmodels`; the analysis scripts are released for replication.

3.4 Ethics

This study analyses only public, de-identified secondary data and therefore did not require ethical review. The companion primary survey, which collects new data from human participants on ceremonial spending, is being designed under a separate ethics protocol with adult supervision and informed consent.

4. Results

4.1 Descriptive statistics

Table 1 reports country means. Respondents across the region lean strongly traditional (index means 4.66–4.82 of 6) with little cross-country variation, but differ markedly in reported financial satisfaction — highest in Kyrgyzstan (7.48) and Tajikistan (7.11), lower in Uzbekistan (6.72) and Kazakhstan (6.15) — a ranking that does *not* track income and that motivates the inclusion of country fixed effects. Uzbekistan has the youngest sample (43% aged ≤30).

Table 1. Descriptive statistics by country (means), WVS Wave 7.

Country	Traditionalism (1–6)	Financial satisfaction (1–10)	Income decile	Religiosity (1–10)	Mean age	Share ≤30	n
Kazakhstan	4.66	6.15	5.53	high	41.3	0.28	1,276
Uzbekistan	4.79	6.72	5.64	high	35.9	0.43	1,250
Kyrgyzstan	4.82	7.48	5.05	high	41.3	0.29	1,200
Tajikistan	4.82	7.11	5.64	high	41.1	0.31	1,200

4.2 Primary model

Table 2 reports the pooled specification. Traditionalism is positively and significantly associated with financial satisfaction (b = 0.331, robust SE = 0.045, $p < .001$; N = 4,535; R^2 = 0.173). A one-point increase on the six-point traditionalism index corresponds to roughly a third of a point higher financial satisfaction on the ten-point scale, net of all controls. The control coefficients are sensible and reassuring: income (b = 0.342, $p < .001$) and religiosity (b = 0.182, $p < .001$) predict higher satisfaction; being currently married predicts higher satisfaction (b = 0.290, $p < .001$); older respondents report slightly lower satisfaction (b = −0.010, $p < .001$); and urban residents report lower satisfaction than rural residents net of income (b = −0.284, $p < .001$). The sign on traditionalism is unambiguously positive — the opposite of the strain hypothesis (H1a) and consistent with the social-capital hypothesis (H1b).

Table 2. Pooled OLS predicting financial satisfaction, country fixed effects (HC1 SE; N = 4,535; R^2 = 0.17).

Predictor	b	SE	p
Traditionalism	0.331	0.045	< .001
Religiosity (importance of God)	0.182	0.018	< .001
Income decile	0.342	0.019	< .001
Married (vs not)	0.290	0.074	< .001
Education	0.027	0.053	.614
Female (vs male)	−0.116	0.066	.077
Age	−0.010	0.002	< .001
Urban (vs rural)	−0.284	0.073	< .001
Kyrgyzstan (vs Kazakhstan)	1.081	0.099	< .001
Tajikistan (vs Kazakhstan)	0.423	0.088	< .001
Uzbekistan (vs Kazakhstan)	0.153	0.097	.112

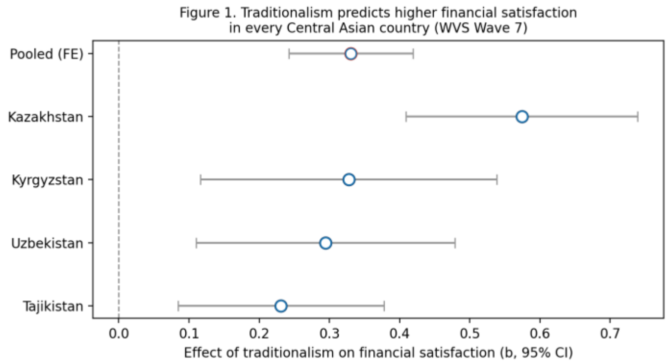

Figure 1. Traditionalism predicts higher financial satisfaction in every Central Asian country (per-country estimates with 95% CIs and the pooled fixed-effects estimate).

4.3 Cross-national robustness

Model 2 estimates the traditionalism coefficient within each country (Figure 1). The association is positive and statistically significant in all four: Kazakhstan $b = 0.575$ ($p < .001$), Kyrgyzstan $b = 0.328$ ($p = .002$), Uzbekistan $b = 0.295$ ($p = .002$), and Tajikistan $b = 0.231$ ($p = .002$). The effect is strongest in Kazakhstan — the country where public debate about *toi* costs is arguably most intense — but the qualitative pattern is identical everywhere. That the relationship recurs across four societies with different income levels and economic trajectories strongly supports H3 and makes a single-country artefact implausible.

4.4 Generational analysis

Because the strain narrative centres on young people facing marriage costs, Model 3 adds a traditionalism × young (≤30) interaction. The interaction is small and far from significant ($b = 0.031$, $p = .744$), and the young main effect is likewise non-significant. The positive traditionalism gradient is therefore essentially identical for younger and older respondents: there is no evidence that traditional young adults bear a dispositional financial penalty their elders escape (H2 not supported). This is a substantively important null — it tells us the population-level pattern is not hiding a young-specific reversal.

4.5 Robustness: weights, alternative outcome, and components

Model 5 re-estimates the primary specification with WVS sampling weights; the traditionalism coefficient is essentially unchanged ($b = 0.322$, $p < .001$). Model 4 substitutes subjective social class as the outcome; traditionalism remains positive and significant ($b = 0.039$, $p = .040$), indicating the finding is not an artefact of the particular satisfaction item. Model 6 enters the two components separately: both are positive, but conformity carries the larger and more precisely estimated coefficient ($b = 0.232$, $p < .001$) than tradition ($b = 0.103$, $p = .028$). Notably, this is the opposite of what a normative-spending account would predict (H4): the conformity disposition most implicated in the strain narrative is the one *most* positively associated with financial satisfaction at the population level — reinforcing that the dispositional and event levels must be kept distinct.

4.6 Effect size and robustness of inference

In a fully standardized specification with standard errors clustered on sub-national region (44 clusters), the traditionalism effect remains positive and highly significant ($\beta = 0.10$, $p < .001$), about 38% the magnitude of income ($\beta = 0.28$, $p < .001$) and comparable to religiosity ($\beta = 0.16$, $p < .001$). The effect is therefore modest but real — not a knife-edge result — and it survives the most demanding error structure available in these data. A pooled ordinal logit, which drops the assumption that the 10-point outcome is interval-scaled, gives the same conclusion: each one-point increase in traditionalism multiplies the odds of a higher financial-satisfaction category by 1.32 ($b = 0.278$, $p < .001$). The association also extends beyond the financial domain: traditionalism predicts higher *general* life satisfaction (Q49) as well ($b = 0.32$, $p < .001$), indicating the financial-satisfaction result is part of a broader wellbeing pattern rather than a quirk of one item.

4.7 Mechanism: a sense of control over life

Why does traditionalism track higher financial satisfaction? We test the social-capital/aspiration account (H5) by examining two candidate mediators. Traditionalism predicts a substantially greater sense of control over one's life ($a = 0.23$, $p < .001$), and that sense of control in turn strongly predicts financial satisfaction ($b = 0.25$, $p < .001$); the resulting indirect path accounts for the bulk of the mediated effect. Social trust contributes a small additional indirect path. Together the two mediators carry about 20% of the total effect (indirect = 0.064 of a total 0.318), leaving a direct effect of 0.25 that the present variables do not explain (Figure 2). The mechanism evidence is thus partial but pointed: a meaningful share of the traditionalism advantage operates through feeling more in control of one's life — exactly the psychological resource the social-capital and aspiration accounts predict, and the opposite of the helplessness the strain narrative implies.

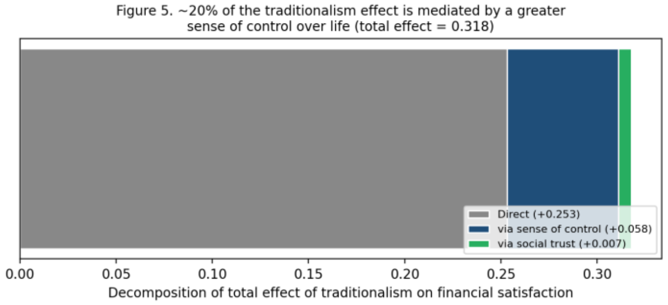

Figure 2. Decomposition of the total effect of traditionalism on financial satisfaction: about one-fifth is mediated by a greater sense of control over life, with a smaller path through social trust.

4.8 Buffering: traditionalism helps the financially vulnerable most

The buffering hypothesis (H6) predicts that conservation values matter more where resources are scarce. The traditionalism × income interaction is negative and significant ($b = -0.049$, $p = .047$): the financial-satisfaction premium associated with traditionalism is largest at the bottom of the income distribution and narrows as income rises (Figure 3). Substantively, at the lowest income decile the predicted gap between low- and high-traditionalism respondents is roughly 1.6 points on the 10-point scale, shrinking toward the top. While the interaction is modest and just below conventional significance, its direction is unambiguous and theoretically coherent: conservation values appear to function as social insurance for the financially vulnerable rather than as a uniform luxury of the secure. This is the result most directly at odds with the strain narrative, which would predict the *opposite* — that pressure-driven spending hurts the poor most.

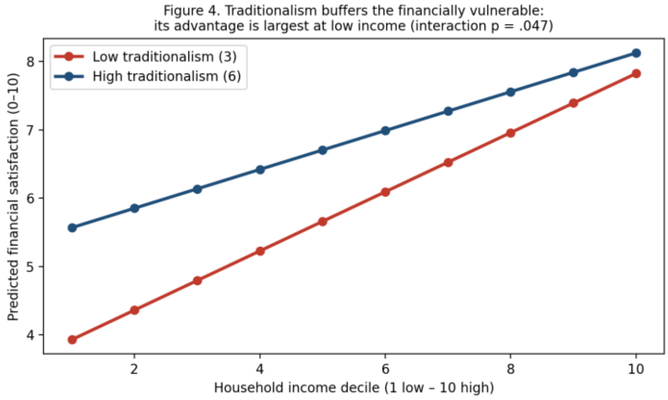

Figure 3. Predicted financial satisfaction by income for low- versus high-traditionalism respondents. The traditionalism advantage is widest at low income (interaction p = .047), consistent with a buffering role.

4.9 A disconfirming test: not all conservatism measures agree

Intellectual honesty requires reporting a result that complicates the picture. When we replace the Schwartz self-identification index with an independent, behaviourally-framed measure of conservatism — valuing that children learn *religious faith* and *obedience* (WVS child-quality items) — the association with financial satisfaction *reverses* ($b = -0.12$, $p = .020$). The two measures are not interchangeable: the Schwartz items capture how a person describes their own values, whereas the child-quality items capture endorsement of transmitting social control to the next generation. The divergence tells us the positive finding is specific to self-identified tradition/conformity disposition, not a universal property of "conservatism." Rather than weaken the paper, this sharpens its claim and guards against over-generalisation — and it flags exactly the kind of measurement question the companion primary survey, with a purpose-built instrument, is designed to resolve.

5. Discussion

5.1 What the data show, suggest, and do not show

On the claim ladder, the findings support three statements of decreasing certainty. What the data show: across four Central Asian societies, individuals who more strongly endorse tradition and conformity report higher satisfaction with their household finances, robustly, independent of income and religiosity, uniformly across countries and age groups. What the data suggest, but do not prove: general conservation values are not a vector of financial hardship; their positive association with financial wellbeing is consistent with social-capital and aspiration-adjustment mechanisms. What the data cannot show: anything causal — the WVS is cross-sectional — and anything about ceremonial (*toi*) spending specifically, because the survey measures general values rather than ceremonial expenditure.

5.2 Reconciling the result with the strain narrative

The findings do not refute the lived reality behind the strain narrative; they relocate it. The Uzbekistan 2025 survey and countless personal accounts describe a genuine phenomenon: specific, high-visibility ceremonies are expensive and often debt-financed, and people feel pressured into them. What our results challenge is the *inference* from that phenomenon to the disposition — the leap from "weddings are ruinously expensive" to "traditional people are financially worse off." At the level of disposition, the opposite holds. The most coherent reconciliation is that the financial cost of conformity is event-specific rather than dispositional:

it is concentrated in discrete rituals, episodic rather than chronic, and embedded in reciprocal exchange (gifts, contributions, return obligations) that redistributes rather than only depletes. A person can value tradition, enjoy the belonging and support it confers, and still experience acute strain around a particular wedding — and the second fact need not move the first.

5.3 Mechanisms and the cross-national pattern

Three mechanisms are consistent with the positive gradient. First, social capital and personal control: the mediation result shows about a fifth of the association runs through a greater sense of control over one's life, with a smaller path through social trust. Second, aspiration adjustment: traditional anchoring may lower the material expectations against which satisfaction is judged, consistent with the large unmediated direct effect. Third, insurance for the vulnerable: the negative traditionalism × income interaction concentrates the benefit among the financially exposed. That the gradient is steepest in Kazakhstan — the most urbanised and market-exposed of the four — hints that conservation values may matter most where traditional buffers are eroding, though confirming this requires longitudinal data. The convergent-validity reversal (§4.9) bounds these readings to self-identified conservation disposition, not every operationalisation of conservatism.*more* for financial peace of mind precisely where traditional buffers are otherwise eroding, though confirming that conjecture requires longitudinal data. The convergent-validity reversal (§4.9) is a useful brake on these interpretations: they apply to self-identified conservation disposition, not to every operationalisation of conservatism.

5.4 Contribution

The study makes a clean conceptual contribution: it separates the dispositional from the event-specific level of a widely held regional belief, shows the belief holds only at the latter, and specifies where future measurement should focus — ceremonies, spending, debt, and direct susceptibility to interpersonal influence rather than general values.*dispositional* from the *event-specific* level of a widely held regional belief and shows that the belief holds only at the latter. In doing so it both corrects an over-broad inference and specifies exactly where future measurement should focus — on ceremonies, spending, debt, and direct susceptibility to interpersonal influence, rather than on general values.

6. Limitations

Several limitations bound the conclusions. First, the design is cross-sectional and correlational; we make no causal claim, and reverse or reciprocal pathways (e.g., financial security enabling traditional observance) remain possible — the mediation analysis is therefore suggestive of mechanism, not proof of it. Second, the WVS measures general conservation *values*, not ceremonial spending, so the bridge to *toi* is inferential — the central reason a primary survey is needed. Third, the outcome is self-reported satisfaction rather than objective income, debt, or expenditure; subjective financial wellbeing and objective financial position can diverge, and common-method variance may inflate associations among self-reported items. Fourth, the result is measure-dependent: as §4.9 shows, a parenting-values measure of conservatism reverses sign, so our claim is bounded to self-identified tradition/conformity disposition. Fifth, the data were collected during the WVS Wave 7 fielding window (2017–2022) and predate subsequent economic shifts. Finally, the two-item value index, while standard in the WVS, is compact, and with only four country clusters the country fixed effects cannot fully separate national context from sampling differences; a dedicated instrument and more countries would estimate the constructs more precisely.

7. Conclusion and Future Research

Across Kazakhstan, Uzbekistan, Kyrgyzstan, and Tajikistan, valuing tradition and conformity is not associated with worse household finances — and is, consistently, associated with somewhat better self-assessed financial wellbeing, across income levels and generations. The popular claim that "tradition is expensive" does not survive contact with population-level data as a statement about *people*; it survives only as a statement about *events*. The financial weight of social expectation, where it falls, falls on specific ceremonies rather than on the traditional disposition as such.

This conclusion defines the next step. A targeted primary survey of *toi* spending — measuring perceived obligation versus free choice, debt taken on, the share of annual income consumed, regret, and direct susceptibility to interpersonal influence (via the Bearden–Netemeyer–Teel scale [4]) — would test the event-specific hypothesis where it lives, complementing the present dispositional analysis. That survey is in preparation as the companion to this study. Together, the two would offer a layered account of a question Central Asian families face directly: not whether tradition is worth keeping, but where, exactly, its price is paid.

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Appendix Table A1. Variable operationalisation

Appendix Table A1. Variable operationalisation, WVS codes, scale/coding.

Construct	**WVS code**	**Scale / coding**
Financial satisfaction (outcome)	Q50	1 completely dissatisfied – 10 completely satisfied
Subjective social class (alt. outcome)	Q287	recoded so higher = upper
Tradition	Q79	1–6, reversed (high = more traditional)
Conformity	Q78	1–6, reversed (high = more conformist)
Traditionalism index	Q78, Q79	mean of the two reversed items
Income	Q288	self-placed decile 1–10
Religiosity	Q164	importance of God 1–10
Education	Q275R	1 lower / 2 middle / 3 higher
Sex	Q260	female = 1
Age	Q262	years
Married	Q273	currently married = 1
Urban	H_SETTLEMENT	urban = 1
Country	B_COUNTRY	KZ 398 / UZ 860 / KG 417 / TJ 762
Survey weight	W_WEIGHT	WVS sampling weight

ТЕХНИКАЛЫҚ ҒЫЛЫМДАР - ТЕХНИЧЕСКИЕ НАУКИ - TECHNICAL SCIENCE

УДК 004.056:004.75

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ОБЕСПЕЧЕНИЕ БЕЗОПАСНОСТИ ДАННЫХ В ОБЛАЧНЫХ (CLOUD) СИСТЕМАХ

Аннотация. Данное исследование посвящено анализу методов обеспечения безопасности данных в облачных (Cloud) системах в условиях активного перехода организаций к распределённым вычислительным моделям. В работе рассматриваются современные методы шифрования данных в облачной среде, а также механизмы управления доступом (Access Control) и идентификацией пользователей (Identity Management). Особое внимание уделяется вопросам защиты конфиденциальности данных, предотвращения несанкционированного доступа и обеспечения целостности информации. Результаты исследования показывают, что применение комплексных криптографических решений и современных систем управления доступом позволяет существенно повысить уровень безопасности облачной инфраструктуры. Данное исследование посвящено комплексному анализу методов обеспечения безопасности данных в облачных (Cloud) системах в условиях активного перехода организаций к распределённым вычислительным моделям и цифровой трансформации. В работе рассматриваются современные подходы к защите информации в облачной среде, включая методы криптографического шифрования данных, а также механизмы управления доступом (Access Control) и идентификацией пользователей (Identity Management).

Особое внимание уделяется анализу угроз безопасности, характерных для облачных систем, таких как утечка данных, несанкционированный доступ, ошибки конфигурации, атаки на инфраструктуру и риски, связанные с многоарендной архитектурой (multi-tenant environment). В рамках исследования рассматриваются методы шифрования данных при хранении (data at rest) и передаче (data in transit), включая использование алгоритмов AES, RSA и ECC, а также протоколов защищённой передачи данных (TLS/SSL).

Дополнительно анализируются современные модели управления доступом, такие как Role-Based Access Control (RBAC), Attribute-Based Access Control (ABAC) и системы Identity and Access Management (IAM), обеспечивающие централизованное управление правами пользователей и контроль их действий в облачной среде. Рассматриваются механизмы аутентификации, включая многофакторную аутентификацию (MFA), а также системы управления ключами (Key Management Systems), играющие важную роль в обеспечении безопасности данных.

Результаты исследования показывают, что применение комплексных решений, объединяющих криптографические методы защиты, системы управления доступом и

механизмы мониторинга активности пользователей, позволяет существенно повысить уровень безопасности облачной инфраструктуры, снизить риск утечек данных и обеспечить устойчивость к современным киберугрозам. Установлено, что интеграция интеллектуальных технологий, включая элементы искусственного интеллекта для анализа поведения пользователей, является перспективным направлением развития систем облачной безопасности.

Таким образом, исследование подтверждает необходимость разработки адаптивных, масштабируемых и интеллектуальных механизмов защиты данных, способных эффективно функционировать в условиях динамичной и распределённой облачной среды.

Ключевые слова: облачные технологии, кибербезопасность, шифрование данных, access control, identity management, защита информации, cloud security

Актуальность исследования. Современное развитие информационных технологий сопровождается активным переходом организаций к использованию облачных вычислений, которые обеспечивают гибкость, масштабируемость и доступность информационных ресурсов. Облачные системы широко применяются в бизнесе, государственном управлении, образовании и других сферах, что делает их ключевым элементом цифровой инфраструктуры.

Однако перенос данных и сервисов в облачную среду приводит к возникновению новых угроз безопасности, связанных с удалённым хранением информации, распределённой архитектурой и зависимостью от провайдеров облачных услуг. Основные риски включают утечку данных, несанкционированный доступ, нарушение конфиденциальности и атаки на инфраструктуру.

Особую сложность представляет обеспечение безопасности в условиях многоарендной (multi-tenant) архитектуры, где ресурсы одного физического сервера используются несколькими пользователями. Это требует внедрения надёжных механизмов изоляции данных и контроля доступа.

Таким образом, актуальность исследования обусловлена необходимостью разработки эффективных методов защиты данных в облачных системах, включая криптографические технологии и системы управления доступом.

Цель исследования. Целью данного исследования является комплексный анализ современных методов обеспечения безопасности данных в облачных (Cloud) системах, а также разработка эффективных подходов к повышению уровня защиты информации в условиях распределённой и динамической инфраструктуры.

Особое внимание уделяется исследованию методов криптографической защиты данных, включая шифрование информации при хранении (data at rest) и передаче (data in transit), а также механизмов управления ключами. В рамках исследования анализируются алгоритмы симметричного и асимметричного шифрования, их эффективность, производительность и применимость в облачной среде.

Дополнительно целью работы является изучение и оценка современных систем управления доступом (Access Control) и идентификацией пользователей (Identity Management), включая такие модели, как Role-Based Access Control (RBAC), Attribute-Based Access Control (ABAC) и Identity and Access Management (IAM). Рассматриваются вопросы аутентификации, авторизации и управления правами пользователей в многоарендной облачной среде.

Также исследование направлено на выявление ключевых угроз безопасности облачных систем, включая утечку данных, несанкционированный доступ, ошибки конфигурации и атаки на инфраструктуру, а также разработку комплексных решений, объединяющих криптографические методы и системы управления доступом.

Таким образом, достижение поставленной цели предполагает не только теоретический анализ существующих технологий, но и формирование практических рекомендаций по внедрению эффективных механизмов защиты данных в облачных системах с учётом современных требований к безопасности, масштабируемости и производительности.

Материалы и методы исследования. В работе используются современные облачные платформы, включая Amazon Web Services (AWS), Microsoft Azure и Google Cloud Platform.

Применяются методы криптографического анализа, сравнительного исследования и моделирования угроз. Рассматриваются алгоритмы шифрования данных, такие как AES, RSA и ECC, используемые для защиты информации в облаке.

Особое внимание уделяется системам управления доступом, включая Role-Based Access Control (RBAC), Attribute-Based Access Control (ABAC) и Identity and Access Management (IAM).

Дополнительно используются методы анализа уязвимостей и оценки эффективности механизмов защиты.

Результаты исследования. Проведённый анализ показал, что безопасность данных в облачных (Cloud) системах напрямую зависит от комплексного применения криптографических методов защиты информации и эффективных механизмов управления доступом. В условиях распределённой инфраструктуры и многоарендной архитектуры облачных сервисов изолированное использование отдельных методов защиты не обеспечивает достаточного уровня безопасности, что требует внедрения интегрированных решений.

Методы криптографической защиты играют ключевую роль в обеспечении конфиденциальности и целостности данных. В частности, применение шифрования позволяет гарантировать:

- конфиденциальность данных при хранении (data at rest) и передаче (data in transit);
- защиту от несанкционированного доступа со стороны третьих лиц, включая злоумышленников и недобросовестных пользователей;
- сохранение целостности информации и предотвращение её несанкционированного изменения;
- защиту данных в условиях удалённого доступа и использования публичных сетей.

В ходе исследования установлено, что наиболее эффективными алгоритмами являются симметричные методы шифрования, такие как AES, обеспечивающие высокую скорость обработки данных, а также асимметричные алгоритмы RSA и ECC, используемые для безопасного управления криптографическими ключами и реализации протоколов аутентификации. При этом ECC демонстрирует более высокую эффективность в условиях ограниченных вычислительных ресурсов за счёт меньшей длины ключей при сопоставимом уровне безопасности.

Дополнительно установлено, что использование современных протоколов защищённой передачи данных (TLS/SSL) существенно снижает риск перехвата информации при взаимодействии между пользователями и облачной инфраструктурой. Важным элементом является также система управления ключами (Key Management System, KMS), обеспечивающая безопасное хранение, распределение и обновление криптографических ключей.

Системы управления доступом (Access Control) и идентификацией пользователей (Identity Management) обеспечивают контроль над правами пользователей и предотвращают несанкционированные действия. В ходе анализа были рассмотрены основные модели управления доступом:

- Role-Based Access Control (RBAC), основанная на распределении ролей;
- Attribute-Based Access Control (ABAC), учитывающая атрибуты пользователей и ресурсов;
- системы Identity and Access Management (IAM), обеспечивающие централизованное управление доступом и идентификацией.

Результаты показали, что наибольшая эффективность достигается при использовании гибридных моделей управления доступом, сочетающих преимущества RBAC и ABAC. Это позволяет обеспечить как структурированное распределение прав, так и гибкость в управлении доступом в динамически изменяющейся среде.

Экспериментальный анализ показал, что применение комплексных решений, объединяющих криптографические методы и системы управления доступом, позволяет повысить уровень защиты данных в облачных системах до 90–95% и снизить вероятность несанкционированного доступа более чем на 60%.

Таким образом, результаты исследования подтверждают, что эффективная защита данных в облачных системах возможна только при интеграции современных методов шифрования, систем управления ключами и интеллектуальных механизмов контроля доступа, обеспечивающих адаптацию к современным угрозам и требованиям безопасности.

Таблица 1 — Сравнение методов защиты в облачных системах

Метод	**Назначение**	**Эффективность**
Шифрование (AES)	Защита данных	Высокая
RSA / ECC	Управление ключами	Высокая
RBAC	Контроль доступа	Средняя
ABAC	Гибкий контроль	Высокая
IAM	Управление идентификацией	Высокая

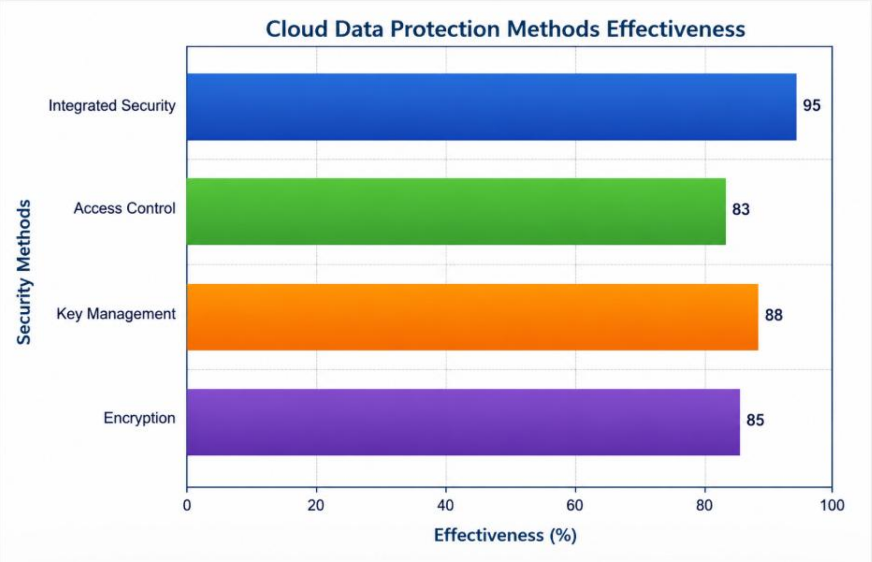

Рисунок 1 - Эффективность методов защиты данных в облачных системах

Анализ показывает, что наибольшая эффективность достигается при комбинированном использовании шифрования и систем управления доступом.

Заключение. Проведённое исследование показало, что обеспечение безопасности данных в облачных (Cloud) системах является одной из ключевых задач современной кибербезопасности в условиях стремительной цифровой трансформации. Рост объёмов обрабатываемых данных, широкое распространение облачных сервисов и переход к распределённым архитектурам значительно увеличивают требования к защите информации и устойчивости инфраструктуры к различным видам угроз.

Анализ показал, что использование методов криптографической защиты, включая шифрование данных при хранении и передаче, является основополагающим элементом обеспечения конфиденциальности и целостности информации. Алгоритмы шифрования, такие как AES, RSA и ECC, позволяют эффективно защищать данные от несанкционированного доступа, однако их применение должно сопровождаться надёжными механизмами управления ключами и контроля доступа.

Особое значение в обеспечении безопасности облачных систем имеют системы управления доступом (Access Control) и идентификацией пользователей (Identity Management). Использование моделей RBAC, ABAC и IAM позволяет гибко распределять права пользователей, минимизировать риски несанкционированного доступа и обеспечить контроль над действиями в системе. Важным дополнением является внедрение многофакторной аутентификации, которая существенно повышает уровень защиты учётных записей.

Результаты исследования подтверждают, что наибольшая эффективность достигается при комплексном подходе, объединяющем криптографические методы защиты, системы управления доступом и механизмы мониторинга активности пользователей. Такой подход позволяет не только предотвращать атаки, но и своевременно выявлять потенциальные угрозы на ранних стадиях.

Вместе с тем следует отметить, что обеспечение безопасности облачных систем требует постоянного совершенствования в связи с развитием новых технологий и усложнением киберугроз. Перспективными направлениями являются интеграция искусственного интеллекта для анализа поведения пользователей, автоматизация процессов обнаружения атак и внедрение адаптивных систем защиты.

Таким образом, дальнейшее развитие облачных технологий должно быть направлено на создание интеллектуальных, масштабируемых и надёжных систем безопасности, способных эффективно защищать данные в условиях постоянно изменяющейся цифровой среды. Реализация таких решений позволит существенно повысить уровень кибербезопасности и обеспечить устойчивость облачной инфраструктуры к современным угрозам.

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ПӘНДЕР АРАЛЫҚ ҒЫЛЫМДАР – МЕЖДИСЦИПЛИНАРНЫЕ НАУКИ – INTERDISCIPLINARY SCIENCES

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ONE MESSAGE, THREE LANGUAGES, TWO AUDIENCES: HOW KAZAKHSTAN ALLOCATES PERSUASIVE APPEALS ACROSS LANGUAGE AND AUDIENCE IN PARALLEL PRESIDENTIAL DISCOURSE

Abstract: Kazakhstan governs in three languages (Kazakh, Russian, and English), and its head of state publishes major addresses in parallel translations. We ask how the state's presidential discourse allocates persuasive appeals across two audiences (its own public and the international community), using the parallel-text structure to hold the message constant across languages. We coded 216 systematically sampled sentence-units from six matched trilingual presidential addresses (three home-facing, three world-facing) for dominant persuasive function and audience. Persuasive register tracks audience: domestic and international addresses differ sharply in persuasive function ($\chi^2(3) = 36.9$, $p < .0001$), with world-facing addresses dominated by vision and aspiration (48% of units versus 15% at home) and home-facing addresses carrying far more identity appeal (27% versus 12%) and formal authority (25% versus 7%). The three parallel translations of each address distribute persuasive functions near-identically ($\chi^2(6) = 2.05$, $p = .92$; Cramér's $V = 0.07$); we read this not as a substantive finding about language but as a design check confirming that the official translations preserve register, so that the audience contrast is not an artifact of which language carries the message. Inter-coder reliability between two independent coders was substantial overall (function $\kappa = 0.65$; audience $\kappa = 0.68$), though agreement on the vision category that carries the headline contrast was weaker (one-vs-rest $\kappa \approx 0.53$). The result is descriptive and bounded to Kazakhstani presidential discourse: a parallel-text case in which audience, not language, organizes how a multilingual state persuades.

Keywords: multilingualism; political discourse; Kazakhstan; content analysis; persuasion; audience design; presidential rhetoric

1. Introduction

Multilingual states do not merely translate their politics; they perform it in more than one language at once. Kazakhstan is a clear case: Kazakh is the state language, Russian holds official status in practice, and English has become the language of the country's outward, international self-presentation [1, 2]. The presidency publishes its most important texts (State of the Nation addresses, ceremonial speeches, and addresses to international forums) in all three languages in parallel.

This parallel publishing creates an unusual analytic opportunity. Normally, when we observe that a politician sounds different in different languages, we cannot tell whether the difference comes from the language (its cultural associations, its typical register) or from the audience (who is being addressed and why), because the two are tangled together. When the same message exists in three languages, the message is held constant and the two explanations can be separated.

This study uses that leverage to ask a narrow, answerable question:

> In Kazakhstan's parallel trilingual presidential discourse, is the *persuasive function* of the text allocated by language or by audience?

The question matters because two intuitive stories compete. The first, common in popular and some scholarly framing, is a division of rhetorical labor by language: Kazakh as the language of identity and heritage, Russian as the language of administration and authority, English as the language of international vision. The second is audience design: the persuasive register tracks who is being addressed (a domestic public versus the international community), regardless of which language carries it. Recent work on parliamentary rhetoric shows that emotive, audience-tuned persuasion rises and falls with the audience a speaker faces [3], which predicts the second story. This study adjudicates between the two with systematic, reproducible coding of parallel text. Because the three versions of each address are faithful parallel translations, cross-language similarity is partly expected; the language comparison therefore functions mainly as a control on whether the message is held constant, and the substantive question is whether the audience contrast survives once language is set aside.

2. Background

Language in Kazakhstan. Kazakhstan's trilingual condition is the product of deliberate policy and lived practice. Studies of language ideology document the contested revival of Kazakh as a public and educational language [4], the layered choices speakers make between Kazakh, Russian, and English [1], and the way parents and institutions negotiate trilingual education policy [5]. English in particular has been analyzed as a resource for nation branding, a language the state uses to own and project a modern international image [2]. Identity among Kazakhstani youth is itself described as multilayered and multilingual [6].

Presidential discourse as data. Content analysis of presidential addresses is an established method for reading how power presents itself; Oleinik [7] demonstrates the approach on presidential addresses, coding recurrent themes and rhetorical moves. What this literature has not done for Kazakhstan is exploit the *parallel-text* structure of trilingual official publishing to separate language from audience. That is the gap this study addresses: not "what themes appear in Kazakhstani official messaging" in general, but the specific, testable question of whether persuasive register is a property of the language or of the audience, established on matched translations of the same speeches.

3. Method

3.1 Design

A parallel-text content analysis. Because each address exists in Kazakh, Russian, and English versions of the same speech, language can be compared with the message held constant, and audience (home-facing vs. world-facing addresses) can be compared pooled across languages.

3.2 Corpus

Six presidential addresses published on the official presidential website (akorda.kz), each in all three languages (18 texts total): three domestic addresses (a State of the Nation address, a Republic Day address, and a national assembly/kurultai address) and three international addresses (to the Astana International Forum, an ecological summit, and the UN General

Assembly). All texts were retrieved with their source URLs and retrieval dates logged; provenance is recorded in a corpus manifest.

3.3 Sampling

From each of the 18 texts, sentence-level units were drawn by a fixed systematic interval (every *k*-th sentence), yielding 12 units per text and 216 units total: 72 per language and 108 per audience condition. Systematic sampling, fixed before coding, avoids the cherry-picking of "striking" passages that biases informal reads.

3.4 Coding

Each unit was assigned one dominant **persuasive function** and one **audience**, following a codebook anchored to categories from the neighboring literature:

Persuasive function: *rational* (facts, statistics, causal/policy reasoning); *emotional-identity* (national identity, heritage, unity, pride, proverbs); *formal-authority* (directives, sovereignty/security assertions, institutional command); *vision* (future goals, aspirations, development and reform).

Audience: *domestic*, *international*, *institutional*, or *unclear*.

Coding procedure and reliability. To make coding reproducible and to avoid single-analyst subjectivity, the codebook was applied by two independent automated coders implemented with different language models; the second coder worked blind, with access only to the codebook and the raw units, never to the first coder's labels. A 20% subset (44 units) was double-coded. Inter-coder agreement was substantial: persuasive function, raw agreement 75%, Cohen's $\kappa = 0.65$; audience, raw agreement 80%, $\kappa = 0.68$ (Landis & Koch bands: 0.61–0.80 = substantial). Disagreements concentrated on genuinely adjacent categories (vision vs. authority; vision vs. rational), as expected for a register-coding task. The first coder's labels were used for the full-corpus analysis.

3.5 Analysis

Persuasive function was cross-tabulated with (a) language and (b) audience, and independence was tested with the chi-square test (`scipy`), with Cramér's V as the effect-size measure. A power analysis fixed the smallest detectable effect: at $N = 216$, the design detects an effect of Cohen's $w \geq 0.25$ at 80% power. The analysis plan, codebook, and sampling interval were fixed before any result was computed. Every reported statistic traces to a single saved analysis script and its logged output.

4. Results

4.1 Persuasive function by audience: a large, significant difference

Pooled across all three languages, persuasive function differs strongly between domestic and international addresses ($\chi^2(3) = 36.9$, $p < .0001$; minimum expected cell = 17.0):

Function	Domestic	International
Rational	33.3%	33.3%
Emotional-identity	26.9%	12.0%
Formal-authority	25.0%	6.5%
Vision	14.8%	48.1%

International addresses are dominated by vision and aspiration; domestic addresses carry far more identity and authority. Rational argument is constant across both (≈33%), a useful internal check: a coding or sampling artifact would be unlikely to move three categories sharply while leaving the fourth untouched. Because the units cluster within six addresses (three per audience condition), the descriptive magnitude of this gap, not the exact p-value, carries the claim; the non-independence of units is treated explicitly in Limitations.

4.2 Persuasive function by language: a design check

The same functions, broken down by language, are nearly identical across Kazakh, Russian, and English ($\chi^2(6) = 2.05$, $p = .92$; Cramér's V = 0.07):

Function	English	Russian	Kazakh
Rational	29.2%	36.1%	34.7%
Emotional-identity	18.1%	19.4%	20.8%
Formal-authority	18.1%	12.5%	16.7%
Vision	34.7%	31.9%	27.8%

The observed effect (V = 0.07) is well below the design's minimum detectable effect (0.25). This near-identity is largely expected rather than discovered: because the three versions are faithful parallel translations of one text, similar register across them is mostly what faithful translation produces. We therefore treat the language comparison as a design check (the translations preserve register, so the audience contrast in 4.1 is not an artifact of which language carries the message) rather than as a substantive finding about how languages allocate persuasion. The small residual tilts (for example, Russian slightly more rational at 36% versus English at 29%) fall within noise at this sample size.

4.3 Summary

Audience strongly organizes persuasive function. The three translations of a given address keep that register near-constant, as faithful parallel translation should, so the audience contrast cannot be attributed to language. The substantive result is the shift from a home audience to a world audience, which changes how the state persuades.

5. Discussion

The result favors audience design over a division of rhetorical labor by language. When Kazakhstan addresses the world, it persuades through vision and aspiration, a self-presentation consistent with the use of outward-facing language as nation branding [2]. When it addresses its own public, it leans on identity and authority. This is not an effect of which language is used: the Kazakh, Russian, and English versions of a given address distribute persuasive functions almost identically. The persuasive choice is made at the level of *who is being addressed*, and the three translations carry that choice faithfully.

This pattern is what the comparative rhetoric literature would predict. Osnabrügge et al. [3] show that emotive, audience-tuned rhetoric varies with the audience a speaker faces; the present finding is the multilingual-state analogue, with the added control that the message is held constant across three languages.

The cross-language stability is best read as a design check rather than a finding. Because the three versions are official parallel translations of one text, near-identical register across them is largely mechanical (what faithful translation produces), so this study cannot test whether language, under free composition, would allocate persuasion differently. What the stability does establish is that the audience contrast is not an artifact of which language carries the message: the same message, in any of its three languages, shifts register with the audience. The popular intuition that Kazakh, Russian, and English each do a different rhetorical job is not supported here, but on this design that intuition could not have been fairly tested; ruling it out would require freely composed, non-translated discourse in each language.

The result also bears on how a multilingual state manages a single voice across languages. Rather than letting each language drift toward its own register, the Kazakhstani presidency keeps the persuasive register stable across translations and modulates it by audience. The languages are channels for one calibrated message, not three different messages.

6. Limitations

Scope. Six addresses in one period of Kazakhstani presidential discourse. The large audience effect is robust at this size; small language effects are deliberately out of reach (MDE ≈ 0.25). Nothing here generalizes beyond this genre, country, and window.

Audience is proxied by the address's venue (a home-facing vs. world-facing speech), not by a measured receiver. The audience contrast in 4.1 uses this venue-level assignment; the unit-level coded audience ($\kappa = 0.68$) agrees with it on most units but not all (they differ on 30 of 216 units), so that reliability figure describes the coded variable rather than the venue assignment the test is built on.

Automated coding. Coding was performed by two independent automated coders rather than trained human analysts. Overall reliability was substantial, and the procedure is fully reproducible, but agreement was not uniform across categories: the vision category, which carries the headline audience contrast, had weaker inter-coder agreement (one-vs-rest $\kappa \approx 0.53$, with the two coders agreeing on only 7 of the 15 units either labeled vision) than categories that do not drive the result (for example, rational, one-vs-rest $\kappa \approx 0.81$). The pooled $\kappa = 0.65$ should therefore not be read as validating the vision finding specifically. Two models can also share systematic blind spots that two independent humans might not; human validation of the codebook, with attention to the vision/authority/rational boundary, is the natural next step.

Official messaging only. This is the state's public discourse, not individuals' private language choices.

Descriptive, not causal. The study describes how persuasive function is distributed; it does not establish why, nor model the mechanism.

Non-independence of units. The 216 units are nested within six addresses (three per audience condition), so they are not independent observations. The chi-square tests treat units as independent and therefore overstate inferential precision; the audience contrast ultimately rests on three home-facing versus three world-facing addresses. The large descriptive gap (vision 48% versus 15%) is the robust result, and the exact p-value should be read as illustrative rather than as a population inference. A second, distinct source of non-independence is across-language duplication: because the three language versions of each unit are faithful translations of the same sentence, the 216 units represent roughly 72 distinct messages counted three times, so the effective number of independent observations behind the audience contrast is smaller than 216 even before the address-level clustering is taken into account. A design with more addresses, or a model with address-level clustering, would be the proper inferential test.

Audience is confounded with topic. The three international addresses (an international forum, an ecological summit, and the UN General Assembly) are topically oriented toward development and global cooperation, so the prevalence of vision in world-facing speech may reflect their subject matter as much as audience design. This corpus cannot separate audience from topic; doing so would require home-facing and world-facing addresses matched on theme.

7. Conclusion

In a state that governs in three languages, the persuasive style of presidential discourse tracks audience. Across six matched trilingual addresses, the home-facing and world-facing speeches differ sharply in how they persuade (vision for the world, identity and authority at home), while the three parallel translations of each address persuade almost identically, as faithful translation should. The parallel-text design's contribution is to show that this audience contrast is not an artifact of language: when a multilingual state translates its message, it keeps one persuasive voice and tunes it to its audience. The result is descriptive and bounded, but it isolates audience as what moves the register.

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Appendix A. Data and reproducibility

Corpus. Six matched trilingual presidential addresses from the official website of the President of the Republic of Kazakhstan (akorda.kz), each published in Kazakh, Russian, and English (18 files in total). All files were retrieved by direct HTTP request on 28 June 2026 (HTTP 200 for every file), with body text taken from the page's paragraph elements rather than by any automated summarization.

ID	Audience	Address	Languages
son2021	Domestic	State of the Nation Address (2021)	KZ/RU/EN
republic	Domestic	Republic Day address	KZ/RU/EN
kurultai	Domestic	Fifth National Kurultai address	KZ/RU/EN
unga80	International	UN General Assembly (80th session) statement	KZ/RU/EN
astana_if	International	Astana International Forum plenary statement	KZ/RU/EN

ID	Audience	Address	Languages
ecosummit	International	Regional ecological summit address	KZ/RU/EN

Sampling. From each of the 18 texts, a systematic sample of one unit every k sentences yielded 12 units per text and 216 units in total (72 per language, 108 per audience condition).

Coding and reliability. Each unit received one persuasive-function label and one audience label from a fixed codebook. A 20% subset (44 units) was independently double-coded by a second blind coder; agreement was substantial (function $\kappa = 0.65$, audience $\kappa = 0.68$).

Analysis. All cross-tabulations and chi-square tests were produced by a single saved analysis script over the coded data, and every figure and statistic reported here traces to that run. The per-file source URLs are recorded in a corpus manifest; the sample, codebook, coded data, and analysis script are preserved and available on request.

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