

From Traditional Nomadism to Digital Nomadism: Conceptual Overview of Women's Rights and Labour Transformations in Central Asia

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Abstract

This article offers a high-level conceptual overview of how women's roles and rights in post-Soviet Central Asia may be understood through the long arc from nomadic livelihoods to contemporary platform-mediated work. Organized around illustrative materials from Kazakhstan, Kyrgyzstan, and Uzbekistan, the paper brings together historical-comparative insights, feminist legal theory, and labour-economy perspectives to map how legal pluralism (customary norms, religious law, and state legislation) intersects with shifting labour regimes. The findings demonstrate that while nomadic societies relied on women's economic contributions in livestock management, textile production and trade, legal frameworks such as *adat* and *sharia* systematically excluded them from property ownership and decision-making. Soviet policies introduced formal gender equality, expanding women's access to education and employment. However, these reforms were largely instrumental and failed to dismantle patriarchal structures. Economic liberalization during the post-Soviet transition weakened social protections and reinforced traditional gender norms. The emergence of digital labour platforms provided new opportunities for women, yet persistent barriers such as algorithmic discrimination, lack of legal protections, and gendered societal expectations continued to limit their participation in the digital economy. The synthesis indicates potential policy directions for gender-sensitive policies that address labour precarity and promote inclusive digital economies. The findings contribute to ongoing discussions on legal pluralism, gendered labour transformations, and policy development in post-Soviet states, offering a foundation for further research on digital labour market regulations and gender equity initiatives in Central Asia.

Keywords: Gender equality, Legal pluralism, Patriarchy, Platform economy, Labour precarity, Social mobility

1 Background

The transformation of women's roles and rights in Central Asia represents a complex and multifaceted historical process influenced by social, economic, political, and technological changes. From the traditional nomadic societies, where women played essential yet constrained roles within patriarchal frameworks, to the modern era of digital nomadism where technological advancements offer new opportunities and challenges, the position of women in the region has evolved significantly (Linao et al., 2024). Despite these changes, inequalities persist, especially over legal rights and equitable access to education, employment, and the digital economy. This study does not advocate for enforced numerical equality in all professions. Instead, it analyses how historical legacies and current socio-economic frameworks influence women's access to the same rights and opportunities as men. Understanding this historical tendency is crucial for recognizing current obstacles and proposing strategies that advance substantive gender equality in the digital era.

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Digital nomadism is typically characterized as a work form facilitated by digital technologies, wherein individuals engage in location-independent tasks and frequently function outside conventional working hours or formal employment frameworks ((Linao et al., 2024); (Puusaar, 2024)). This method of labour diverges from conventional office-based employment in multiple aspects. It is less dependent on physical presence, more reliant on digital platforms, and frequently marked by flexible or irregular hours. Estimates suggest that the worldwide digital nomad population escalated to over 50 million in 2025, an increase from about 35 million in 2023, indicative of swift expansion propelled by enhanced acceptability of remote work and technology advancements (Myskiv, 2025). Concerning gender ratios, a significant gender disparity exists: Around 93% of digital nomads are male, while merely 7% are female as of 2025 ((Hu & Qian, 2024); (Jones & Sen, 2025)). This disparity is closely associated with men's predominance in highly paid tech-related positions, such as software and web development and cryptocurrency, while women are more commonly in marketing, creative, and administrative digital nomad roles, which are generally underrepresented in the community.

The motivations for choosing digital nomadism are diverse. Certain employees emphasize autonomy, flexibility, and the opportunity to integrate work with travel or familial obligations as advantageous attributes. Some highlight the necessity: For numerous individuals, particularly in transitional economies, online gig work serves as a contingency in the absence of secure, full-time employment ((Mwaura, 2020)). This divergence is essential from a gender perspective, Conventional office positions with set hours offer security, career advancement, and social protections. However, they restrict flexibility, an element frequently valued by women who carry an unequal share of domestic and caregiving duties. In contrast, digital "anywhere jobs" allow women to balance paid employment with household responsibilities, but these jobs often come with precarious contracts, algorithmic biases and insufficient benefits, which perpetuate vulnerabilities instead of alleviating them. Identifying the interplay between preferences and restrictions is crucial for evaluating the impact of digital nomadism on gender equality in Central Asia (Akisheva, 2023).

The study of women's rights in Central Asia is particularly relevant due to the region's unique socio-cultural and historical background. The patriarchal structures of nomadic societies historically dictated the roles of women, limiting their participation in decision-making, property ownership, and economic activities (Naizabayeva et al., 2022). During the Soviet era, state ideology officially advocated for gender equality, implementing reforms in education, employment, and family law that enhanced women's rights and workforce participation, while patriarchal norms persisted beneath the surface. With the collapse of the Soviet Union and the transition to market economies, gender dynamics in the region underwent substantial shifts, influenced by globalization, migration, and digitalization (Wason, 2025). The emergence of digital nomadism has created new avenues for economic independence, particularly for women, yet it has also introduced new vulnerabilities, such as the lack of labour protections and social security.

Scholarly discourse has extensively addressed women's status in pre-modern and Soviet Central Asia. Several studies have examined the legal, economic, and social transformations that shaped gender relations in the region, demonstrating that while legal frameworks evolved over time, cultural and societal factors often hindered full gender equality.

The role of women in traditional nomadic societies has been explored in historical and anthropological research. Prior (2024) highlighted the duality of women's status in Central Asian nomadic communities, where they held significant responsibilities within family structures but remained subordinate to male authority. While women actively contributed to household economies and herding, their decision-making power was often limited and social mobility remained constrained by patriarchal norms.

The impact of Soviet gender policies on Central Asian women has been widely studied. Darbaidze and Niparishvili (2023) analyzed how Soviet policies expanded women's rights in legal terms through literacy programs, workforce integration, and bans on practices such as polygamy and forced marriage. However, they also noted that traditional norms persisted at the societal level, often leading to resistance against imposed gender reforms.

The transition from Soviet-era gender policies to post-Soviet economic liberalization brought new challenges. Balgabekova (2023) argued that economic restructuring led to a decline in women's employment opportunities and a resurgence of conservative gender norms, as many lost access to stable jobs and

state-sponsored social protections. Spector and Botoeva (2022) examined how economic hardships in post-Soviet Central Asia disproportionately affected women, forcing many into informal labour markets with limited legal protections. These regional developments constituted components of broad global changes in women's labour. The Industrial Revolution transitioned labour from home-based cottage industries, where women integrated economic activities with family duties, to factories that frequently conflicted with women's domestic obligations. The advent of mechanization and subsequent office labour reduced the importance of physical strength, hence facilitating women's entry into professional and clerical sectors on more equitable terms with males. In this context, digital transformation represents the latest phase of a prolonged evolution. It offers new opportunities for women's economic autonomy, as noted by Puusaar (2024), yet simultaneously perpetuates existing vulnerabilities in novel manifestations, such as precarity, insufficient legal safeguards, and conflicts between professional and familial responsibilities.

Despite these contributions, there remains a lack of research specifically addressing the intersection of historical gender norms and contemporary digital labour trends in Central Asia. While previous studies have examined women's roles in traditional and Soviet contexts, and others have analysed digital nomadism globally, few have assessed how these transformations impact Central Asian women's labour rights and social mobility today. This study aims to bridge this gap by providing an in-depth analysis of the historical evolution of women's rights in Central Asia and their position in the digital economy.

In this article, remote work refers to digitally mediated work performed outside an employer's/client's premises and often from a fixed location; gig work denotes task-based, typically short-term contracting with limited protections; and platform work is gig work organized through digital platforms that match workers and clients and govern visibility, evaluation, and payment. Digital nomadism is used more narrowly to mean location-independent remote work combined with sustained geographical mobility (work organized around travel rather than a stable residence). Accordingly, the empirical focus in the article is women's integration into digital labour markets, especially platform-mediated and remote work, while digital nomadism is treated as a subset rather than the default label. For this reason, global "digital nomad" figures are referenced only as a broad indicator of growth in location-independent work and are not treated as directly comparable prevalence estimates for Central Asia.

The aim of this study is to analyse the evolution of women's roles and rights in Central Asia, tracing their transformation from traditional nomadic societies to the modern phenomenon of digital nomadism. The study has several objectives:

1. To explore the legal and social status of women in nomadic communities.
2. To analyse the effects of economic and political transformations on gender roles throughout history.
3. To examine the implications of digitalization for women's employment and economic independence.
4. To identify both opportunities and challenges associated with digital nomadism, including issues related to labour rights, social mobility, and gender-based inequalities.

2 Materials and methods

This review employed a theoretical approach that integrates historical, legal, and socio-economic analyses to examine the evolution of women's roles and rights in Central Asia. The research was based on a combination of historical-comparative analysis, legal analysis, feminist legal theory (MacKinnon, 1989) and digital labour theory, enabling a structured and stage-specific investigation of gender transformation in Central Asia from the pre-modern era to the present.

The study follows a three-stage interpretive procedure designed for historical-legal contextualization rather than systematic measurement. Stage 1 (pre-modern/nomadic period) uses selected historical and ethnographic accounts to extract recurring rules and practices relevant to women's property, inheritance, marital arrangements, and decision-making, treating *adat* and *sharia* as socio-legal reference frameworks whose practical operation is mediated by community enforcement. Stage 2 (Soviet and post-Soviet

settlement) analyses core legal texts (family-law principles, constitutional equality clauses, and framework gender-equality legislation) to identify formal rights and typical enforcement gaps discussed in the secondary literature. Stage 3 (digital transformation) synthesizes research and policy reports on remote work and platform-mediated labour to identify mechanisms of precarity (employment classification, social protection portability, and platform governance) that are particularly salient for women.

The comparative element is limited and explicitly operationalized across three common dimensions: legal framing of equality (constitutional and framework provisions), law-in-practice constraints (customary/religious norms, informal enforcement, and documented barriers to remedy), and labour-market channel characteristics (forms of women's work, exposure to informality/precarity, and the plausibility/risks of digital/platform work). Sources were included when they directly informed one of these dimensions for at least one of the three countries and were excluded when they did not materially contribute to the conceptual map being developed.

The digital transformation blurs the traditional distinctions between part-time and full-time employment, offering flexibility that may especially attract women aiming to balance paid employment with familial obligations. However, the gendered characteristics of these labour forms must also be acknowledged. Digital nomadism caters to women's inclination for flexible, part-time employment, while also attracting men due to the reduced interpersonal engagement typical of such roles. In contrast to traditional office employment, which necessitates frequent engagement with co-workers and clients, digital nomadism typically entails limited social interaction, illustrating the "people-things" aspect of vocational preferences. Women generally prefer occupations that require interpersonal engagement, whereas men are more predisposed to positions centred on technology or independent activities, rendering these careers potentially more appealing to men than to women.

The study analysed a diverse range of sources relevant specifically to Kazakhstan, Kyrgyzstan, and Uzbekistan, including historical texts (Babur, 1922; Dughlat, 1895), legal codes ("Constitution of the Kyrgyz Republic", 2021; "Constitution of the Republic of Kazakhstan", 1995; "Constitution of the Republic of Uzbekistan", 2023; Law of the Kyrgyz Republic No. 184, 2008; Law of the Republic of Kazakhstan No. 223-IV, 2019), international reports (United Nations Development Programme, 2022; World Economic Forum, 2023), and scientific articles. The research was focused on Kazakhstan, Kyrgyzstan, and Uzbekistan, as these countries offer a representative cross-section of legal and socio-economic developments in post-Soviet Central Asia. Sources were selected to illustrate major historical-legal junctures rather than to provide exhaustive coverage.

The research process involved three key stages. First, historical and ethnographic accounts were examined to assess women's roles in traditional nomadic societies. This stage analysed economic contributions, property rights, and customary legal constraints that defined gender roles. Second, Soviet-era gender policies were analysed. Finally, contemporary developments were explored, assessing the gendered effects of digital labour and freelancing.

The three-country focus on Kazakhstan, Kyrgyzstan and Uzbekistan is intended to capture meaningful variation in baseline socio-legal conditions that shape women's labour opportunities and the practical reach of legal norms. Kazakhstan may be approached as the most urbanized and institutionally statist setting among the three, where formal gender-equality commitments and women's educational participation are relatively visible in public life, yet occupational segregation and the "double burden" of paid work alongside unpaid care remain pronounced, with family-role expectations continuing to structure career trajectories; Islamic practice is present but commonly expressed in plural and socially moderate forms, with customary expectations often operating through family and community norms rather than overtly formalized religious adjudication, which is important for specifying how "adat/sharia" function in practice.

Kyrgyzstan can be framed as a context in which community-level regulation and rural-urban gradients are analytically central: gender norms are strongly mediated by kinship networks and local reputation regimes, and tensions between constitutional equality and informal constraints in family life are widely noted; Islamic practice is similarly heterogeneous and may be experienced as a mix of personal religiosity and community expectations that indirectly affects women's mobility, marital choices and labour-market participation even within a formally secular legal order.

Uzbekistan may be introduced as a more state-regulated and socially conservative public sphere in which reform agendas coexist with persistent traditionalizing expectations around femininity, respectability and family responsibility; Islamic practice remains meaningful in everyday life but is typically navigated within a governance environment that manages religion in the public domain, suggesting that “sharia” should be treated primarily as a socio-normative reference point rather than a uniformly institutionalized legal order.

Across all three cases, “digital nomadism” is best conceptualized not as a dominant labour regime but as an emerging, unevenly accessible segment of platform-mediated and remote work. For women, its feasibility depends on household bargaining power, time autonomy, digital skills, reliable connectivity and social permission to engage in mixed-gender online markets, while associated risks reflect weak employment classification, limited portability of social protections, and the opacity of platform governance — conditions that vary by setting but are consistently filtered through gendered expectations regarding care work and “appropriate” forms of paid labour.

3 Results

3.1 *Women’s status in traditional nomadic societies and legal constraints*

The status of women in the nomadic societies of Kazakhstan, Kyrgyzstan and Uzbekistan, three post-Soviet countries representing the Central Asian region, was shaped by a complex interplay of economic necessity, customary law, and religious influences. Unlike in sedentary agricultural communities, where rigid gender divisions confined women primarily to domestic labour, the economic structure of nomadic societies required their active participation in essential tasks such as livestock management, textile production, and food processing (Elmuratovna, 2024). This active involvement granted women a certain degree of mobility and influence within the household and community; however, it did not translate into legal autonomy or social equality. Customary law (*adat*), religious law (*sharia*), and clan-based governance structures reinforced male authority, ensuring that women’s contributions remained economically valuable but legally invisible (Samadi, 2021).

In the historical records of the region, such as “The Tarikh-i-Rashidi” by M.H. Dughlat (1895) and the “Baburnama” by Z.M. Babur (1922), there are references to elite women exercising influence in diplomatic and social affairs. Yet, even in these cases, their authority was largely mediated through kinship ties to male rulers or clan leaders. Women’s legal and economic rights were determined by patrilineal customs that dictated inheritance, marriage, and property ownership. Although some exceptions existed in which women from noble families acted as regents or intermediaries in political alliances, these instances were anomalies rather than indicative of a broader legal or social status for women. The dominant structures of power remained patriarchal, with legal and customary norms prioritizing male control over property and decision-making.

The primary legal system that governed nomadic societies was *adat*, which was deeply rooted in tribal traditions and functioned as an unwritten legal code regulating social relations, conflict resolution, and economic transactions (Pylypchuk, 2024). *Adat* reinforced male dominance by ensuring that property and lineage passed exclusively through the male line. Women were not entitled to inherit land or livestock, as such assets were deemed essential for the survival of the extended clan and, therefore, had to remain under male control. This legal framework systematically excluded women from independent wealth accumulation and economic self-sufficiency, reinforcing their dependence on male relatives. Marriage, often arranged for strategic alliances between tribes, further entrenched male authority, with women’s social roles being primarily defined through their relationships as daughters, wives, and mothers.

The introduction of Islamic law (*sharia*) in the region brought additional gendered restrictions, particularly in the areas of family law, divorce, and inheritance. While *sharia* theoretically granted women certain legal rights, including the ability to inherit a portion of property and to seek divorce under specific circumstances, in practice, these rights were often undermined by *adat* and patriarchal enforcement mechanisms (Ramli et al., 2023). Women’s legal testimonies were considered less credible than those of men, and their ability to initiate divorce was severely restricted. *Sharia* further justified male guardianship over

women, limiting their freedom of movement and reinforcing the notion that their primary duty was to serve as caretakers within the family. The combined influence of adat and sharia created a legal environment in which women's rights were highly contingent on male authority, restricting their social mobility and economic independence (Sartori, 2017).

One of the most pervasive mechanisms of control over women in nomadic Central Asia was the institution of levirate marriage, a practice that required widows to marry a male relative of their deceased husband (Commercio, 2022). This system was designed to keep wealth and property within the extended family while ensuring that a woman remained economically tied to her husband's lineage. Although levirate marriage provided a form of social security, preventing widows from being left destitute, it simultaneously reinforced the notion of women as economic assets rather than autonomous legal entities. The practice limited women's ability to remarry freely and ensured that their labour and reproductive capacities remained under male control.

The legal and social structures of nomadic societies reveal a deep-seated duality in the status of women (UNESCO, 2025). On one hand, their economic contributions were indispensable, as they participated in trade, managed household economies, and played essential roles in sustaining livestock-based economies. On the other hand, they were systematically denied legal rights and political influence, reinforcing their dependency on male kinship networks. This duality aligned with C.A. MacKinnon (1989) feminist legal theory, which argued that legal systems are not neutral but serve to institutionalize male dominance. In the context of nomadic Central Asia, law functioned not as a mechanism of justice in the modern sense, but as a tool for maintaining gender hierarchies.

Despite the restrictions imposed by adat and sharia, some women were able to carve out spaces of influence within their communities. Women who held the title of "baibiche", or senior wife, in polygamous households often exercised authority over younger wives and played a role in family decision-making (Commercio, 2022). In some cases, noblewomen were entrusted with managing economic affairs or mediating conflicts within the clan.

However, such roles were always defined in relation to male authority; they did not represent genuine legal agency or the right to independently own property. Even when women wielded power within the household, their status was always contingent on their position within the male-dominated family structure.

The enforcement of patriarchal legal frameworks in nomadic societies also extended to social control mechanisms that regulated women's sexuality and mobility (Wani, 2025). Female chastity was closely tied to family honour, and violations of social norms regarding women's behaviour could result in severe punishment, including social ostracism or even honour-based violence. Women's movements were often restricted, particularly in times of intertribal conflict, when concerns over protecting female family members from rival groups reinforced the notion that women required male guardianship at all times.

In examining the broader implications of these gendered legal structures, it becomes evident that the status of women in traditional nomadic societies was not merely a reflection of cultural values but rather a product of deliberate legal mechanisms designed to sustain male control over economic and social resources. The patriarchal nature of these societies was not incidental but structurally embedded in legal and customary norms that denied women independent legal identity and economic autonomy.

This historical analysis highlights the intricate and lasting influence of patriarchal legal systems on modern gender relations in Central Asia. Although historical traditions have established a basic impact on legal processes, their influence on contemporary laws and practices differs. Comprehending the condition of women in traditional nomadic tribes is crucial for contextualizing contemporary discussions on gender equality and legal changes, since these historical legacies continue to influence post-Soviet transformations in gender policies. It is essential to acknowledge that, although certain aspects of these traditions endure, contemporary legal systems frequently embody wider socio-political transformations and shifting perspectives on gender equality.

3.2 *Legal reforms and gender contradictions in the Soviet and post-Soviet periods*

The legal status and social roles of women in Kazakhstan, Kyrgyzstan, and Uzbekistan underwent profound transformations during the Soviet era and its aftermath, shaped by state-driven gender policies, economic restructuring, and legal contradictions. Soviet legal reforms sought to eliminate pre-modern patriarchal structures by granting women legal equality in marriage, employment, and education.

However, these reforms were often implemented instrumentally, prioritizing economic productivity over genuine gender emancipation (Darbaidze & Niparishvili, 2023). The post-Soviet transition, characterized by economic liberalization and a resurgence of customary legal frameworks, further complicated gender dynamics. Through a historical-legal analysis, this section examines the impact of Soviet policies on gender equality and the contradictions that emerged in the post-Soviet context.

The Soviet state undertook a radical transformation of gender relations, integrating women into the labour force and granting them formal legal rights in family law, employment, and education. The introduction of the Soviet Family Code of 1926 and its revision in 1944 outlawed polygamy, bride price (*kalym*), and forced marriages, representing a dramatic departure from the patriarchal legal structures of the pre-Soviet period (Abman, 2024). Women were granted equal rights in marriage, the ability to file for divorce, and formal recognition as independent economic actors (Djuraeva, 2022). These legal changes laid the groundwork for women's increased participation in public and economic life.

A defining aspect of Soviet gender policy was the promotion of female employment. Women were actively recruited into industrial labour, collective farming (*kolkhozy*), and professional sectors, with literacy campaigns significantly increasing female education levels (Aripova, 2022). However, while these reforms formally abolished traditional gender roles, they did not dismantle patriarchal power structures. As MacKinnon (1989) argued in feminist legal theory, legal equality alone does not guarantee substantive gender equality if societal institutions remain structured around male dominance. The Soviet state framed female employment as a socialist necessity rather than an emancipatory goal, reinforcing women's dual burden — formal employment alongside unpaid domestic labour.

Despite the legal advances, traditional customs persisted in Central Asia. Many rural communities continued to adhere to *adat* (customary law) and *sharia* (Islamic law) in private matters such as marriage and inheritance (Medlin et al., 2023). These parallel legal systems often favoured male authority, limiting women's ability to exercise the rights guaranteed under Soviet law. In some regions of Kyrgyzstan and Uzbekistan, informal Islamic courts (*qadis*) continued to adjudicate family disputes, contradicting official gender equality policies. The persistence of these customary practices underscores the limitations of Soviet legal reforms in fundamentally transforming gender hierarchies.

Adat and *sharia* should not be presented as uniform or static legal systems. Both function as historically layered normative repertoires whose practical meaning varies across time, locality (urban/rural settings), and institutional sites of interpretation (family councils, local authorities, state courts, and informal mediators). In practice, what is labelled *adat* often reflects negotiated community expectations and locally produced authority rather than a fixed inherited code, while references to *sharia* may operate as moral-normative justification, selectively invoked alongside state law and customary norms. Importantly, these normative orders are internally contested: Women, reform-oriented religious actors, legal professionals, and civil-society organizations may challenge restrictive interpretations, promote alternative readings, and push for procedural safeguards and rights-based enforcement within the boundaries of national legal frameworks.

Following the collapse of the Soviet Union, Kazakhstan, Kyrgyzstan, and Uzbekistan adopted new constitutions that enshrined gender equality. For example, Article 18 of the Constitution of the Republic of Uzbekistan (2023) affirmed that all citizens of the Republic of Uzbekistan shall have equal rights and freedoms, and shall be equal before the law, without discrimination by sex. Similarly, Article 24, Section 2 of the Constitution of the Kyrgyz Republic (2021) guarantees gender equality, stating that men and women have equal rights and freedoms and equal opportunities for their realization. The Constitution of the Republic of Kazakhstan (1995) also upholds gender equality, reinforcing the legal foundation for women's rights in the post-Soviet period.

However, while these legal frameworks formally recognize gender equality, they are often undermined by socio-economic realities. Economic liberalization led to the dismantling of Soviet-era welfare systems, disproportionately affecting women (Lovett, 2023). The closure of state-run childcare facilities and the privatization of industries previously dominated by female labour resulted in declining female employment rates. World Economic Forum (2023) highlighted that gender disparities in economic participation remain significant in Central Asia, with women facing barriers to entering high-wage professions and leadership positions.

The Global Gender Gap Index (GGGI) by World Economic Forum (2023) and the Social Institutions and Gender Index (SIGI) by OECD (2023) offer extensive assessments of gender equality, focusing on several aspects of gender-related disparities. The GGGI evaluates the gender gap in four main domains: economic participation and opportunity, educational attainment, health and survival, and political empowerment. It provides a comprehensive perspective on gender inequality at both global and regional scales. Conversely, the SIGI assesses gender inequality by examining social institutions, emphasizing discriminatory practices in family law, physical integrity, access to productive and financial resources, and civil rights. The SIGI is particularly valuable for comprehending the legal and cultural obstacles encountered by women in different countries.

Additionally, the resurgence of traditional family structures and legal pluralism has complicated the enforcement of gender equality laws. In rural areas, adat and sharia have regained influence, leading to a revival of early marriage, polygamy, and family-based economic dependency. Women's property rights, while legally protected, are frequently disregarded in practice. According to Law of the Republic of Kazakhstan No. 223-IV "On State Guarantees of Equal Rights and Equal Opportunities for Men and Women" (2009), the state is responsible for ensuring equal economic opportunities for men and women. Similarly, Law of the Kyrgyz Republic No. 184 "On State Guarantees of Equal Rights and Equal Opportunities for Men and Women" (2008) mandates state intervention to eliminate gender discrimination. However, enforcement remains inconsistent, particularly outside urban centres.

A persistent post-Soviet gender dilemma is the prevalence of gender-based violence (GBV) alongside continuing problems with law enforcement and cultural attitudes (Davidenko & Utkina, 2024). Under Soviet rule, domestic violence was largely treated as a private matter, and this perception persisted in the post-Soviet era (Jiries, 2024). In Kazakhstan, the Gender Equality Law prohibits discrimination based on sex and mandates state intervention against GBV. However, the implementation of protective measures remains inadequate. In Uzbekistan, despite constitutional guarantees of equality, societal norms continue to discourage women from seeking legal recourse for domestic violence (Erdenebolor et al., 2024).

In Kyrgyzstan, Article 6 of the Law of the Kyrgyz Republic No. 60 "On the Fundamentals of State Guarantees of Ensuring Gender Equality" (2003) explicitly bans gender discrimination and mandates legal action against violations. However, World Economic Forum (2023) findings indicated that many cases of domestic violence go unreported due to social stigma and lack of trust in law enforcement. The persistence of GBV underscores the gap between legal reforms and their practical enforcement.

While post-Soviet legal frameworks formally recognize gender equality, contradictions between legal reforms and socio-economic realities persist. Many Central Asian governments have introduced national gender strategies, but these policies often lack effective enforcement mechanisms.

The government of Kazakhstan advocates for gender equality efforts in alignment with its international obligations. However, social policies and cultural traditions persist in prioritizing women's roles in motherhood, often at the expense of their professional careers. This illustrates a wider cultural balance between labour market engagement and familial obligations, which influences women's decisions and prospects.

In Kyrgyzstan, national gender policies coexist with deeply rooted practices of bride kidnapping and forced marriages. This situation highlights the gap between official legal protections and societal norms (Lundberg, 2021). However, the recent increase in reported cases may reflect greater public awareness and improved reporting mechanisms, rather than simply a rise in incidents (Hofmann & Chi, 2021).

Economic policies have constrained support for women's participation in the workforce. The informal labour sector, characterized by limited social safeguards, employs a significant number of women. Their

employment may be driven by economic need or a voluntary choice to pursue informal or flexible work arrangements to reconcile professional and personal obligations.

World Economic Forum (2023) observed that women in Central Asia are disproportionately employed in low-wage positions with inadequate legal protections. Structural factors, including inadequate enforcement of labour laws, socio-economic obstacles, and cultural norms, are pivotal. However, some scholars suggest that gender disparities in career ambition or risk-taking, possibly stemming from evolutionary influences, may also account for these occupational trends. These differences underscore enduring inequalities in women's involvement in the labour market and its protections, irrespective of the underlying causes. Without targeted economic reforms, such as initiatives enhancing women's access to higher-paying jobs, incentives for female entrepreneurship, or laws that extend social protections to women in informal and digital labour sectors, legal recognition of gender equality remains predominantly symbolic (Tirbakh & Chaban, 2021).

The Soviet and post-Soviet legal transformations in Central Asia reveal the complex interplay between formal gender equality and entrenched socio-economic and cultural structures. While Soviet policies laid the foundation for women's legal rights, they failed to dismantle patriarchal norms. Post-Soviet constitutions and gender equality laws reaffirm these rights, yet enforcement remains inconsistent.

The contradictions between legal reforms, economic policies, and cultural resurgence illustrate MacKinnon (1989)'s argument that law often functions as a tool of ideological legitimacy rather than actual transformation. Addressing these contradictions requires stronger enforcement mechanisms, gender-sensitive economic policies, and cultural shifts to ensure that legal gender equality translates into substantive social and economic rights for women in Central Asia.

3.3 Digital nomadism and structural gender inequalities in the platform economy

The rise of digital nomadism in Central Asia has created new economic prospects while simultaneously transforming established employment frameworks, potentially disadvantaging women. 'Anywhere jobs' enable workers to determine their work schedule and location, frequently categorizing them as independent contractors instead of employees. This transition diminishes access to labour protections including health insurance, retirement plans, and paid leave. Women may be disproportionately impacted due to ongoing caring obligations and societal expectations, which restrict their capacity to navigate the uncertainties and self-management requirements of digital labour. Although flexibility may advantage many women, the interplay of inadequate security measures, unstable income, and caregiving obligations can exacerbate prevailing disparities in economic engagement and autonomy.

The platform economy has contributed to the integration of women in Central Asia into the global labour market, particularly in sectors such as freelance writing, digital marketing, and information technology. The United Nations Development Programme (2022) identifies digital transformation as a factor facilitating increased labour market access for women globally, while also emphasizing the persistence of gender disparities due to unequal access to not only basic digital tools (such as computers and internet) but also more advanced resources, including digital literacy training, stable connectivity, and financial means necessary for full participation in online labour markets, alongside broader economic insecurity. Research indicates that women in Central Asia frequently lack the necessary digital literacy and financial capital required to fully capitalize on remote work opportunities (Ure, 2021). However, in contrast to traditional employment with set hours, digital and remote work provides self-directed flexibility, enabling women to more effectively balance paid labour with household duties. For some women, this freedom may be more empowering than limiting, potentially alleviating the restrictions imposed by societal norms and domestic responsibilities, despite the persistence of financial or technical limitations.

Women participating in the gig economy as digital nomads often encounter a lack of fundamental social protections. Digital labour platforms and employers typically do not offer paid leave, including maternity leave, sick leave, or health insurance, nor do they contribute to pension funds. Since gig workers are not formally recognized as employees, access to benefits available within traditional employment frameworks remains restricted (Mwaura, 2020).

The global digital gig economy is a relatively smaller sector, with estimates indicating that women constitute a minority of its members, while men predominantly occupy technology-centric roles (Rao & Usha, 2025). The male preponderance may be partially attributed to males pursuing other income sources when full-time employment is inaccessible, coupled with the allure of lonely, technology-driven work without interpersonal responsibilities (Pahuja, 2025). Thus, although heightened female involvement in digital gig work may promote gender equality, the interplay of income volatility, insufficient legal protections, and insecure circumstances can present economic and psychological difficulties for women entering this field. Comparative studies in countries like Kenya reveal a pervasive lack of social protections for independent contractors, underscoring the necessity for governmental interventions to guarantee equitable and secure engagement in the gig economy (Hernando & Calizo, 2024; Vimelfall & Levin, 2023).

Although legal frameworks promoting gender equality have been enacted in Central Asian countries, challenges persist in their enforcement. In Kazakhstan, gender equality and anti-discrimination legislation formally exist, yet their effectiveness remains constrained due to insufficient implementation mechanisms and weak enforcement (Khamzina et al., 2022). Comparable issues are evident in Kyrgyzstan, where the presence of national gender strategies and policy frameworks has not translated into substantive improvements due to slow implementation (*Kyrgyz Republic: Country gender assessment*, 2019). Gender assessments indicate that significant discrepancies continue to exist between legislative provisions and the lived experiences of women.

In Uzbekistan, gender equality is legally recognized, yet human rights assessments suggest that weak enforcement mechanisms contribute to the continued vulnerability of women to discrimination and GBV, preventing them from fully benefiting from the legal protections in place (Khamzina et al., 2022). These findings underscore that challenges in achieving gender equality stem not from the absence of relevant legislation, but from deficiencies in policy execution and oversight.

Women entrepreneurs operating within the technology and digital business sectors experience difficulties in securing financial capital. Global data reveals a pronounced gender disparity in venture financing, with women-founded startups receiving only approximately 2% of total venture capital funding (Masterson, 2024). Although structural factors, such as restricted access to networks, institutional biases, and socio-economic limitations, are significant, research in personality psychology indicates that sex differences in risk-taking, which are consistent across cultures and species, may also influence the patterns of entrepreneurial behaviour, including the types and scale of ventures undertaken by women and men. This trend reflects broader systemic barriers that hinder women from accessing investment opportunities necessary for business scaling.

In Central Asia, financial institutions demonstrate reluctance in providing loans or investment capital to women-led startups, which can be attributed to entrenched biases and the underrepresentation of women within the technology industry. Women-led companies in Central Asia are inadequately represented in the technology and digital sectors, and existing research indicates they may encounter challenges in securing venture capital and business funding (Nextrade Group, 2025). Nevertheless, reliable data regarding the quantity of women-led firms seeking loans or venture capital, as well as their success rates in comparison to men-led startups, is limited. Consequently, it remains ambiguous whether the observed discrepancies result from institutional bias, variations in application rates, or other structural and economic influences. This underscores a considerable knowledge deficiency and the necessity for focused research to comprehend the funding environment for female entrepreneurs in the region.

International studies corroborate that female entrepreneurs consistently face restricted access to credit, receive lower investment volumes, and obtain comparatively less support from investors than their male counterparts (Henry et al., 2022). Such constraints create barriers to the expansion of women-led digital enterprises, underscoring the need for targeted support programs, including grants, guarantees, and microfinancing initiatives, to address these disparities.

Social norms in Central Asia continue to allocate primary household and caregiving responsibilities to women. The disproportionate burden of unpaid domestic labour results in women dedicating a significant amount of time to household duties, thereby limiting their ability to pursue entrepreneurship or career advancement. The "double burden", wherein women have to balance paid employment with household

duties, is not exclusive to the region. Historical records and modern research demonstrate that it has been a prevalent issue worldwide, particularly impacting women in lower- and middle-income households (Picot & Spath, 2020).

Empirical findings indicate that increased female participation in the digital economy often coincides with the necessity of balancing professional responsibilities with unpaid domestic labour. The societal expectation that women serve as primary caregivers adversely affects career progression by restricting flexibility, mobility, and the ability to invest in professional development. As a result, many women digital nomads may face difficulties reconciling work obligations with family responsibilities, limiting opportunities for long-term career advancement.

Digital platforms and the algorithms governing them are vulnerable to implicit bias. Research indicates that ranking systems and task allocation algorithms on freelance platforms may inadvertently favour male workers while limiting women's visibility. Gender-based biases may be embedded within artificial intelligence models, leading to a reinforcement of pre-existing disparities (Lima et al., 2023). When historical trends indicate that men have disproportionately secured higher-paying assignments, algorithms may continue to assign such tasks predominantly to male workers, perpetuating inequalities. These algorithmic biases contribute to a cycle wherein women receive fewer professional opportunities, obtain lower client ratings, and ultimately experience reduced earnings.

The absence of structured institutional support presents an additional challenge for women engaged in the digital sector. Governmental institutions and professional organizations in Central Asia offer limited specialized programs addressing the needs of women digital nomads, including initiatives focused on training, mentorship, legal protection, and professional advocacy. As a result, women working in the gig economy frequently rely on self-directed initiatives to navigate challenges within the digital labour market.

Reports highlight that institutional support from both digital platforms and government entities remains insufficient or ineffective, exposing female gig workers to risks such as non-payment for work completed and workplace harassment. International organizations, including OSCE and EBRD, have initiated mentorship and training programs aimed at supporting women within Central Asia's digital economy. Nonetheless, national institutional support systems for workers are generally underdeveloped, potentially disadvantaging women due to prevailing gender inequalities in access to networks, training, and career progression.

Reducing gender disparities within the digital labour market necessitates targeted policy interventions. Governments in Central Asia are encouraged to establish regulatory frameworks extending labour protections to gig workers, ensuring equitable wages and access to social security for digital nomads. Increased investment in digital education and financial inclusion initiatives are essential for addressing economic inequalities and enhancing women's economic empowerment (Ahmed et al., 2025; Picot & Spath, 2020).

Women continue to be underrepresented in the worldwide technology sector, including computer science and digital businesses. This under-representation is not uniform across all technology sectors. For instance, specific domains such as particular medical sciences, biotechnology, or digital creative industries demonstrate a more equitable representation of females (Gadi, 2021). Research indicates that women's involvement with tech fields is substantially affected by factors including ingrained gender stereotypes in STEM disciplines, limited access to female role models and mentors in technology, gender-biased recruitment and hiring practices favouring male candidates, and workplace environments frequently lacking policies that promote work-life balance, thereby complicating women's success in tech careers (Ramseook-Munhurrun et al., 2025; United Nations Development Programme, 2024). Although personal preferences may differ, systemic obstacles rather than an inherent lack of disinterest are the principal factors contributing to under-representation.

In this context, financial policies and support structures are crucial for enhancing women's involvement in digital entrepreneurship. Enhancing credit accessibility for women-led digital enterprises through low-interest loans and focused investment opportunities, coupled with organized mentorship and networking initiatives, could address historical and systemic disparities and promote a more inclusive technology workforce in Central Asia and beyond.

Women digital nomads in Central Asia encounter interconnected challenges encompassing inadequate social protections, legal gaps, cultural constraints, and technological disparities. Addressing

these issues necessitates a multifaceted approach involving legislative reforms, the implementation of gender-responsive education and entrepreneurship programs, and the development of institutional support structures tailored to women in the digital workforce.

Furthermore, international cooperation is required to establish regional standards protecting gig workers' rights, ensuring fair and equitable treatment across national boundaries. Without comprehensive policy measures aimed at reducing gender-based inequalities in digital employment, the transformative potential of digital nomadism will remain inaccessible to a significant portion of women in Central Asia.

To examine the potential causes of gender inequality in Central Asia's digital labour market, it is mandatory to take into account various structural and cultural aspects. Digital literacy constitutes a substantial barrier. Women in Central Asia frequently encounter restricted access to technology and training possibilities, particularly in rural regions, leading to diminished involvement in digital industries (Ure, 2021). Nonetheless, although insufficient digital literacy is a contributing factor, it is not the exclusive cause of the disparities. Furthermore, gendered socialization influences women's inclination to pursue employment in technology. Social norms and stereotypes frequently influence educational decisions, discouraging women from pursuing technical disciplines like computer science and engineering, despite their potential interest and potential for success (Ranasinghe et al., 2024).

The issue of dropout rates from IT programs further complicates this matter. Research reveals that women frequently enrol in tech-related courses at rates comparable to males, but their dropout rates are higher. This is ascribed to gender bias, insufficient mentorship, and a predominantly masculine culture in numerous technical fields that deters women from persisting (Vergara et al., 2022). These disadvantages are frequently exacerbated by institutional biases in pedagogy, assessment, and academic support systems that penalize women in male-dominated disciplines.

Moreover, after obtaining their degrees in IT-related disciplines, women frequently encounter discrimination in the employment market. Research indicates that women possess similar capabilities to males but have challenges in obtaining employment due to gender biases in recruitment, limited access to professional networks, and the absence of gender-sensitive workplace rules (Carranza et al., 2023). Consequently, despite attaining similar academic achievements, women in technology sectors frequently receive lower salaries and have delayed job advancement compared to their male peers.

These difficulties indicate a wider pattern of gendered systemic obstacles embedded in cultural and institutional structures. The under-representation of women in Central Asia's digital economy is attributable not only to a lack of interest or self-selection but also to historical socio-cultural expectations, educational biases, employment discrimination, and the lack of supportive infrastructure, including mentorship and equitable access to professional networks.

Various factors, including digital literacy, gendered educational selections, dropout rates and employment discrimination, converge to establish a gendered digital divide. Addressing this necessitates specific policy initiatives, including the promotion of digital education, financial inclusion, gender-sensitive career guidance and changing workplace discrimination, to guarantee equitable participation for women in the digital economy.

4 Discussion

The findings of this study reveal the complex interplay between legal, economic, and social factors shaping the evolution of women's rights in Central Asia. By examining the historical constraints placed on women in nomadic societies, the impact of Soviet legal reforms, and the contemporary challenges posed by digital nomadism, this research contributes to the broader discourse on gender and labour transformations in post-Soviet states. This section discusses the implications of these findings in relation to existing theoretical perspectives, highlights the study's contributions to gender studies in Central Asia, and identifies areas for future research.

The study confirmed that women's roles in Central Asian societies have historically been influenced by economic necessity while being constrained by legal frameworks that prioritized male authority. The persistence of adat and sharia as legal and customary systems ensured that while women actively

participated in economic life, they were legally dependent on male relatives. This aligns with MacKinnon (1989) feminist legal theory, which posits that legal systems are not neutral but serve to institutionalize male dominance. The study extends this theoretical perspective by demonstrating how customary and religious laws reinforced gender hierarchies in nomadic societies, limiting women's legal autonomy despite their indispensable economic contributions.

The Soviet period introduced legal reforms that sought to dismantle patriarchal structures through policies promoting female employment and literacy. However, as Darbaidze and Niparishvili (2023) argued, these reforms were largely instrumental, serving state economic needs rather than fostering true gender equality. Although enacting legislation to promote women's participation in the workforce was relatively uncomplicated, the issue of legislating familial connections is more problematic. In reality, altering entrenched gender roles within the family has proven significantly more difficult. Soviet policies increased women's participation in the workforce while frequently preserving patriarchal family systems, resulting in the phenomenon known as the double burden, when women were anticipated to manage both paid employment and unpaid household duties. This underscores a critical limitation: formal legal equality, exemplified by achievements in the public domain, does not inherently result in social equality within the domestic sector. Although the direct legislation of family roles is controversial, it is evident that systemic alterations in social norms and gender expectancies are essential for attaining genuine equality in both public and private domains.

The post-Soviet transition further complicated gender dynamics. The economic liberalization during the post-Soviet transition resulted in significant job losses for women in state-controlled sectors, including healthcare and education (Brainerd, 2000). Nonetheless, these sectors continued to be predominantly occupied by women, as men rarely pursued these low-wage, conventionally female positions while women had limited options for work beyond these professions. This agrees with the findings of Lovett (2023), who noted that the transition to market economies disproportionately affected women in post-Soviet states, pushing many into the informal labour sector. The study also highlights the revival of adat and sharia in rural regions which, within the framework of a wider cultural and ideological trend of re-traditionalization and religious resurgence following independence, strengthens male supremacy in marriage, property rights, and familial decision-making. These findings correspond with Medlin et al. (2023), who observed that legal plurality in post-Soviet republics, along with the resurgence of traditional legal and religious frameworks, has undermined women's capacity to claim their rights under constitutional gender equality provisions. This transition underscores the influence of reverting to traditional institutions on women's autonomy and their access to legal safeguards amid contemporary state legislation.

The study's results align with international research on gender and economic transitions in post-Soviet societies. Abman (2024) found that post-socialist legal frameworks often retain patriarchal biases despite formal gender equality provisions. The evidence from Kazakhstan, Kyrgyzstan, and Uzbekistan supports this argument, as constitutional guarantees of gender equality have been undermined by weak enforcement and the resurgence of traditional norms. Similarly, Djuraeva (2022) highlighted how post-Soviet legal systems fail to protect women from GBV, an issue corroborated by the findings of this research.

Conversely, the study diverges from Aripova (2022), who argued that Soviet policies led to sustained improvements in women's economic and political participation. While Soviet-era reforms did increase female workforce integration, this study finds that gender hierarchies persisted, as women remained underrepresented in leadership positions and burdened with unpaid domestic labour. The contradictions between legal reforms and social realities suggest that economic policies alone cannot dismantle patriarchal structures without complementary cultural and legal changes.

In the context of digital labour, the study builds upon Picot and Spath (2020), who emphasized that digital nomadism offers both opportunities and risks for women in emerging economies. The research findings confirmed that while digital work provides greater flexibility and global market access, it also exacerbates economic precarity due to the lack of labour protections.

Masterson (2024) highlighted gender disparities in venture capital funding, a challenge also identified in this study, where female entrepreneurs in Central Asia face financial exclusion and limited access to investment opportunities. These findings have important theoretical and practical implications. Theoretically,

the research extended feminist legal theory by demonstrating how historical legal frameworks continue to shape contemporary gender dynamics in Central Asia. The interplay between adat, sharia, and state law illustrates the persistence of legal pluralism in post-Soviet gender relations. This study also contributed to labour economics by highlighting how digital nomadism has not eliminated gender disparities but rather transformed them into new forms of labour precarity.

Practically, the findings underscore the need for targeted policy interventions to address gender disparities in digital labour. Governments in Central Asia must develop regulatory frameworks that extend labour protections to gig workers, ensuring that women digital nomads receive fair wages and access to social security. Investments in digital education and financial inclusion are crucial for reducing economic inequalities and fostering women's participation in the platform economy. Moreover, strengthening enforcement mechanisms for gender equality laws is essential to bridging the gap between legal provisions and social realities.

While the manuscript draws on Catharine MacKinnon's feminist legal theory and conceptualizes gender inequality as structurally reproduced through legal and institutional arrangements, the interpretation of occupational segregation requires caution against biologizing causal claims. Explanations that attribute women's underrepresentation in technology-intensive work to inherent sex differences in preferences or risk-taking are treated here as contested narratives rather than as established mechanisms, particularly given the absence of region-specific evidence capable of adjudicating such claims in the Central Asian context. The analysis therefore privileges explanatory pathways that are consistent with a structural lens and more directly observable in socio-legal settings: gendered socialization and educational streaming, unequal access to digital skills formation and professional networks, biased recruitment and evaluation practices, workplace cultures that penalize caregiving responsibilities, and platform governance rules that can reproduce inequality through ostensibly neutral procedures. Consequently, patterns of women's concentration in certain sectors and their limited presence in high-status digital roles are interpreted primarily as outcomes of differential opportunity structures and constraints operating across the life course, rather than as reflections of intrinsic occupational dispositions.

This discussion highlighted the significance of historical legal frameworks, economic transitions, and digital labour market transformations in shaping gender dynamics in Central Asia. The study confirmed that while legal reforms have improved gender equality on paper, deep-seated patriarchal norms and economic barriers continue to restrict women's legal and economic agency. Addressing these issues requires a multifaceted approach, integrating legal reforms, economic policies, and cultural shifts to ensure that women can fully participate in both traditional and digital economies.

5 Conclusions

The study examined the evolution of women's roles and rights in Central Asia, tracing their transformation from traditional nomadism to digital nomadism. The analysis focused on Kazakhstan, Kyrgyzstan and Uzbekistan, which were selected as representative post-Soviet states within the Central Asian region. The findings indicate that although women played an essential role in economic activities within nomadic societies, their legal autonomy remained restricted due to the influence of adat and sharia. Soviet-era reforms sought to dismantle these patriarchal structures by promoting gender equality in law and employment. However, these changes primarily served economic objectives rather than achieving substantive gender equality. The post-Soviet transition, marked by economic liberalization and the resurgence of customary legal frameworks, further complicated gender dynamics, reinforcing pre-existing inequalities.

The research confirmed that legal and economic reforms alone are insufficient to eliminate gender disparities if deep-rooted social norms persist. While Soviet policies formally granted women legal equality, they did not dismantle patriarchal structures, such as laws related to property rights or family law that still place women at a disadvantage. The post-Soviet transition established new legislative frameworks aimed at ensuring gender equality in employment and education.

However, these laws are inadequately enforced, particularly in rural regions where traditional adat and sharia persist in shaping family law, property rights, and gender roles. Despite these regulations,

women in Kazakhstan continue to encounter discriminatory practices regarding property inheritance and domestic abuse protection, while in Kyrgyzstan, gender discrimination persists extensively due to inadequate enforcement of gender equality rules in rural areas. These findings correspond with feminist legal theories, which contend that legal frameworks frequently perpetuate existing power relations. To effectively combat gender inequality, it is essential to amend or abolish laws that do not confront patriarchal practices, particularly those concerning property rights, domestic violence, and gender roles in family law.

The theoretical significance of this study lies in its contribution to the discourse on gender, law, and labour in post-Soviet states. The analysis highlights the enduring impact of historical legal traditions on contemporary gender dynamics, demonstrating that the interaction between adat, sharia, and state law continues to shape women's economic and legal status.

The research's practical significance pertains to policymakers, emphasizing the imperative of incorporating gender-sensitive policies into labour and digital economy rules. For example, policies may encompass paid parental leave, equal pay initiatives, and the establishment of gender quotas for leadership roles in both public and commercial sectors. Furthermore, digital literacy initiatives aimed at women, along with subsidized access to technology, would facilitate the reduction of disparities in women's engagement in the digital economy. These steps are crucial to guarantee that women in Central Asia can fully engage in economic transitions and get equitable access to labour market opportunities.

Future research could further explore the impact of digital technologies on gender relations across different economic sectors in Central Asia. Additionally, further investigation into the effectiveness of state-led initiatives supporting women's entrepreneurship and digital literacy could provide valuable insights into overcoming structural barriers. Analysing the role of international organizations in promoting gender equality in digital economies would also be a productive avenue for research.

A key limitation of the article concerns the contemporary evidence base on women's participation in platform and remote digital work in Central Asia. Reliable, comparable datasets that are simultaneously gender-disaggregated, country-specific, and tailored to platform-mediated labour (rather than general ICT adoption) remain limited. This constrains the extent to which global findings can be "mapped onto" national contexts without overgeneralization. Future research should therefore prioritize primary and region-specific measurement, combining targeted surveys, interviews, and administrative/statistical sources, to establish the prevalence of platform work among women, sectoral segmentation, earnings dispersion and the availability of social protection, as well as to document how legal enforcement and social norms shape entry, retention, and advancement in digital labour markets.

In conclusion, the findings suggest that achieving substantive gender equality in Central Asia requires a comprehensive approach that integrates legal, economic, and sociocultural reforms. While legal provisions for gender equality exist, their effectiveness is undermined by persistent patriarchal norms and socio-economic barriers. Future research and policy efforts should focus on addressing these challenges to ensure that women can fully benefit from digital labour markets and broader economic transformations in the region.

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